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EDUCATION, SOCIAL SCIENCES, HUMANITIES AND BUSINESS (MIESHB – 2023)**

*Special Issue Editor in Chief*  
**Dr. V. PUSHPALATHA**



# BODHI

## International Journal of Research in Humanities, Arts and Science

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*Dear Conference Participants, Academicians and Scholars...*

With immense pleasure and gratitude, I am extending a cordial greeting to you at the International Conference on **MULTIDISCIPLINARY INNOVATIONS IN EDUCATION, SOCIAL SCIENCES, HUMANITIES AND BUSINESS (MIESHB - 2023)**, which is being held on **December 22nd – 2023** and is being organised by **EMG Yadava Women's College, Madurai, Tamil Nadu, India & Manipal Global NXT University, Malaysia.**

It was truly an enlightening session which blazed a trail for fresher's in the field of business and for the academicians from the educational department, on how to propel and present themselves to the outside world. Indeed it was a productive meeting, where the speakers enriched the participants and academicians. Presenters and specialists across the globe engaged in this conference, and their huge contribution made the session a sensational hit. The keynote speeches, guest speakers, workshops, scientific sessions, and poster presentations on the areas of Finance, Marketing, Human Resource Management, Education, Social Sciences, Humanities, Business and Information Technology are the essential realms to address the crucial dilemmas pertaining to trailblazing changes in Education, Social Sciences, Humanities and Business.

By seizing the most of this opportunity, I would like to extend my gratitude to the **Manipal Global NXT University, Malaysia** and the crew for their sincere exertion in making this conference a resounding success.





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**Dr. V. PUSHPALATHA**

*Principal*

## **Principal Message**

Dear Conference participants, Academicians and Scholars...

I have the honour and pleasure of extending a warm greeting to you at the International conference on **MULTIDISCIPLINARY INNOVATIONS IN EDUCATION, SOCIALSCIENCES, HUMANITIES AND BUSINESS (MIESHB-2023)**, which is being held on December 22nd -2023 and is being organized by **EMG Yadava Women's College, Madurai, Tamil Nadu, India & GlobalNxt University, Malaysia.**

It has definitely paved way for many new initiates more than ever in the business world and in the world of academics. The unprepared businesses/Academic institutions have disappeared while many new mushroom growth businesses have emerged in the past couple of years. This conference has a huge number of presenters and specialists from all around the world , including keynote speakers , guest speakers, workshops, scientific sessions, and poster presentations on the areas of Finance, Marketing, Human Resource Management, Education, Social Sciences, Humanities, Business and Information Technology are the key domains to address some of the key issues pertaining to Innovations in Education, Social Sciences, Humanities and Business.

I would like to take this opportunity to thank the GlobalNxt University, Malaysia and the crew for their honest efforts in making this conference a success.



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We have seen a steady increase in leadership, article submission, and citation to our published articles. Our reputation and Visibility in the academic community continues to broaden and our honorary editorial board constantly reassesses and revises the editorial process to ensure the most efficient and satisfying experience for both authors & Staff. The Journal aspires to be vibrant engaging and accessible and at the same time integrative and Challenging. All submitted papers, however will be subject to the journal's double blind review process.

We dedicate our heartfelt gratitude to all the authores who invested their valuable and Precious time, which is the part of their life-span to document their knowledge and belief through their pens with attitudes of altruism and great intention to make our readers to enlist as eye-witnesses to their academic commitments in print version. We admit that this publication is not the outcome by the efforts of the editors alone, but strongly accept and admire the people who guided and showed The easy to bring out this issue to satisfy the good readers like you, who deserve our thanks expectation to continue your patronage and positivity of co-operation in the days ahead.





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Academic Excellence in research continues promoting research support for young Scholars. Humanities, Arts and Science researches motivate all aspects of encounters across disciplines and research fields in multidisciplinary views, by assembling research groups and consequently projects, supporting publications with this inclination and organizing programmes. Internationalization of research work is the unit that seeks to develop its scholarly profile in research through quality publications. And visibility of research creates sustainable platforms for research and publication, such as series of books; motivating dissemination of research results for people and society.

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**CONTENTS**

---

S. No.	Title	Page No.
1	Demystifying the Enigma: Dostoevsky's Heroine in Crime and Punishment <b>Dr. C. Ramya &amp; V. Yamini</b>	01
2	Medical Applications of Curcuma Longa (Turmeric) - A Review <b>Dr. Mrs. G. Indira Rani</b>	06
3	Trans-Continental Continuation of the African Traditional Religion by the Piramalai Kallar Tribe in Tamil Nadu <b>Dr. T. Hema</b>	09
4	Machine Learning Techniques in Spam Filtering Princess <b>Mrs. R. Rajasangeetha</b>	15
5	Problems of Women Micro Entrepreneurship Through Self Help Groups in Madurai District <b>Dr. S. P. Sugapriya</b>	19
6	கவிஞர் வைரமுத்து படைப்புகளில் இலக்கிய நயம் <b>முனைவர். பா. பனிமலர்</b>	24
7	தமிழ்க் கல்வி கற்றல் கற்பித்தலில் புதுமைகள் <b>முனைவர். திருமதி வை. நம்பித்தாய்</b>	27
8	நற்றிணைப் பாடல்களில் இடம் பெறும் குறிஞ்சி மற்றும் நெய்தல் திணை களவுநெறியில் தோழியின் கூற்றுகள் - ஒப்பீடு <b>தி. அனுகூயா</b>	33

9	Unlocking the Therapeutic Treasury: Nilavembu ( <i>Andrographis Paniculata</i> ) in Focus – A Literature Synthesis <b>Dr. V. Vijaya</b>	39	19	Gender Empathy in Kamala Markandaya's <i>Some Inner Fury</i> <b>Dr. S. Gayathri</b>	84
10	Impact of Childhood Experiences in Shaping Personality: Psychodynamic Perspective in Sudha Murty's "Common Yet Uncommon" <b>Mrs. S. Muthulaxmi</b>	46	20	A Study on Green Entrepreneur Inclination Among Younger Generation in Dindigul District <b>Mrs. S. K. Sudha</b>	89
11	A Study of the Present Situation of the Saurashtra Weavers - A Minority Group in Madurai <b>Dr. A. Bhavani</b>	49	21	Identification of Butterfly Diversity in E.M.G. Yadava Womens College Campus, Madurai, Tamilnadu, India <b>Mrs. S. Sharmila</b>	95
12	The Status of Women During Nayak's Period <b>Dr. N. Ashadevi</b>	53	22	The Rebellious Journey of Surpanakha in Kavita Kane's <i>Lanka's Princess</i> <b>Dr. Mrs. B. Kavikashree</b>	98
13	An Enhanced Threshold Values and Node Priority (Tvnp) Graph Processing Scheme Used in Distributed System Environment <b>Dr. J. Chinna</b>	56	23	A Case Study on Elimination of Daughter in Madurai District: Socio-Economic Analysis <b>Dr. O. Jeyanthi</b>	101
14	Important Vaishnava Temples Around Madurai <b>Mrs. G. Senthamarai</b>	63	24	A Deep Delve Into an Epoch-Making Societal Concerns: Abject Poverty and Lamentable Homelessness, Through the Prism of George Orwell's <i>Down and Out in Paris and London</i> and Mulk Raj Anand's <i>Coolie</i> <b>T. Priyadharshini</b> <b>Dr. R. S. Sabeetha</b>	105
15	Gendered Roles and Societal Dynamics in Arundhati Roy's <i>The God of Small Things</i> and Ngũgĩwathiongó's <i>Devil on the Cross</i> <b>Dr. R. S. Sabeetha</b>	67	25	Exploring Sustainable Organic Fertilizer Production from Agroindustrial Wastes: An Integrated Approach <b>M. A. Soniya</b>	110
16	Achievements and Agonizations of Women in their Work Space as Represented in Frances Harper's <i>Iola</i> <b>Dr. M. Sivaranjani</b>	71	26	Depiction of Culture and Feministic Perspective in Chitra Banerjee's Novels, <i>The Palace of Illusions</i> and <i>The Mistress of Spices</i> <b>A. Mahara Devi</b>	118
17	A Comprehensive Analysis of Statistics looking for Behaviour of Library Users in Self-Governing Arts and Science Colleges in Tamil Nadu <b>R. Jeyanthi</b>	75	27	A Human Rights Perspective on Child Labour <b>Dr. S. Kalaivani</b>	121
18	Cyclic Partitions of Supermagical Partitions <b>A. Manimegalai</b>	80			

28	Intervention of Zumba Dance Program on Selected Physical Fitness and Body Composition Variables among College Women Students <b>Dr. L. Karuppiah &amp; Dr. A. Kalarani</b>	125
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## DEMYSTIFYING THE ENIGMA: DOSTOEVSKY'S HEROINE IN CRIME AND PUNISHMENT

**Dr. C. RAMYA**

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### Abstract

*Fyodor Dostoevsky is a renowned 19th-century Russian author noted for his impeccable portrayal of the human psyche through his characters. Especially, his women characters are independent, self-sacrificing, empathetic and kind figures capable of making their own decisions and withstanding them. Through his works, he directly tells the story of a male protagonist, but indirectly made his women characters a beacon that guides the male protagonist. These female characters are headstrong personalities, they stick to their decision whatever happens and whoever opposes them. They are not much spoken neither in the novel directly nor researched by the researchers. This article delves deep into the analysis of one such female character of Dostoevsky from *Crime and Punishment*, one of his celebrated novels. Unlike other writers of his period who presented female characters as a thing of beauty and a machine that bears children, Dostoevsky portrayed his female characters not as merely sensual figures and supportive characters but as strong pillars who bear the weight of the whole story. As he is from a Russian Orthodox background, his strong spiritual and religious side is reflected in his female character named Sofya Semyonovna Marmeladov/ Sonya, unlike the male characters of this novel who carry his confused ideologies. This female character is rich in emotion, motivation as well as complexities. The readers gain insights into Dostoevsky's personal faith through the character of Sonya. Like other women, she too was confronted with societal constraints due to her livelihood in a patriarchal society that only accepts things done by a man. But Dostoevsky tackles and overcomes those societal constraints laid for women in a tricky manner. This research paper aims to explore the complex character of Sonya from Dostoevsky's novel *Crime and Punishment* through which we hope to gain a deeper understanding of the portrayal of women in Dostoevsky's works and their significance.*

**Keywords:** *Sacrifice, Beacon, Prostitution, Patriarchal Society, Poverty.*

Dostoevsky's works and characters can be analysed from multiple perspectives as they have many things to explore. One of the most important dimensions of analysis is the exploration of his female characters as it reveals a clear line of development. His female characters are often placed in problematic situations, but they create their own solution to overcome those situations. Unlike the other writers of his period, Dostoevsky presented his female characters as figures who always had their own statements to make rather than being mere consorts for men. Dostoevsky's attitude towards women and their societal position is strongly represented in his works. Religious themes such as suffering, sacrificial love

and forgiveness are openly expressed through some of his female characters.

In his works, Dostoevsky presented his female characters as more than sexual objects although certain male characters like Svidrigailov, a libertine and womanizer, tend to view women as sexual objects. This research paper particularly focuses on the female protagonist of the novel *Crime and Punishment*. *Crime and Punishment* often cited as one of the greatest works in world literature beautifully mirrors the unconscious mind of the characters, which portrays the psychological problems they undergo. The novel follows the mental anguish and moral dilemmas of Rodion Romanovich

Raskolnikov, a former law student suffocated by poverty who murders Alyona Ivanovna, a pawnbroker and finds himself surrounded with confusion and disgust soon after the crime scene. He suffers to redeem his life back to normal which happens when he accepts his lawful punishment by admitting his crime through the instructions of Sonya.

Men are regarded as the sole bread winners of the family thus women are expected to serve those men. But here, Dostoevsky broke this societal constraint using the character, Sonya. Sofya Semyonovna Marmeladov commonly known as Sonya is the daughter of a former government official Semyon Zakharovich Marmeladov and his first wife. She is the female protagonist of the novel *Crime and Punishment*. To support her family, she enters into the job of prostitution so that she can feed the three little mites of Katerina Ivanovna Marmeladov, second wife of Marmeladov. Her father Marmeladov is an alcoholic who couldn't do anything to feed his family other than express his feelings about his inability to support his family while drunk. Nothing from her professional life is shown in the novel other than her difficulty being in a job that she didn't like.

Marmeladov explains about his family, the love he has for them and his inability to provide them with the basic essentials like food, clothing and shelter. Katerina, wife of Marmeladov was able to provide her children with some food only with the money earned by Sonya otherwise they would have died of poverty. The character of Sonya provides a clear view of the patriarchal society where women can earn only using their bodies and not their minds. This is evident when Marmeladov says,

“... can a poor but honest girl earn much through honest labour?... She'll not earn fifteen copecks a day, sir, if she is honest and has no particular talents, and even then only if she works herself into the ground!” (Dostoevsky, 2014, p. 22, 23)

Women are expected to take care of their household, husband and children not more than that is expected of a woman. Though Sonya learned some

languages with her interest in learning languages she couldn't find a job where she could excel and earn money using her talent. As a responsible person, she upholds her family situation alone without the help of others.

From the beginning of the novel, the author tries to showcase Sonya as an angelic figure rather than an evil figure who is doing prostitution to earn money. Because she chose prostitution to feed her family and not for sensual pleasures. She had no other choice to opt in this male-dominated society to earn money. She is well aware of the fact that it is a shameful act for a woman to do prostitution and nobody wants a prostitute in their neighbourhood. People started to complain about her activities thus, she isolated herself from her family and left to live in a tailor's house. Her poor place is described by Raskolnikov as...

“The yellowish, glossy, frayed wallpaper had turned black at every corner; it must have been damp and smoky in here during the winter. The poverty was unmistakable; there were no curtains even by the bed.” (Dostoevsky, 2014, p. 378)

She visited her family only after dark to give them money. This signifies her act of maturity that she wants her family as well as others to live in peace. She doesn't want to be objectified for disturbing others' peace and wellbeing.

She could have lived her life like other women of her age or in a way she wants to but she sacrificed her life for the wellbeing of her family. The family for which she sacrificed everything was not even her own family but her father's family from his second marriage. When Sonya comes to see her father on his deathbed her appearance is mentioned as a woman dressed in ragged clothes but fancy ones which made others understand she is a prostitute. As she enters, she can't go near her dying father because of her status as a prostitute thus, she stands in one of the corners.

Katerina got married to Marmeladov when Sonya was 14. While growing up, Katerina was mean to Sonya and called her 'freeloader'. Sonya

tries to make money by doing things like selling shirts but she can't get the expected money sufficient enough to feed the children. So, Katerina insisted Sonya to sell her body for money. Sonya protested but it was of no use. Soon after the conversation Sonya left home, returned a few hours later and silently handed thirty roubles to Katerina.

[Marmeladov:] "She went straight to Katerina Ivanovna and laid out thirty roubles on the table without saying a word." (Dostoevsky, 2014, p. 23)

Though prostitution wasn't illegal during that time Marmeladov feels that he and Katerina were responsible for the crime of forcing his daughter into prostitution. In the novel, the character Sonya is introduced by Marmeladov as he expresses his sadness to Rodion Romanovich Raskolnikov, the protagonist of the novel and other men in his surroundings in a state of drunkenness. He tells them that because of him his daughter entered into prostitution.

Though Katerina behaves badly and is responsible for making Sonya's life a miserable one, Sonya still loves her. It is obvious when she tells Raskolnikov that it is okay even if she hits her because she is like a child and she is a sad woman who deserves justice. She even feels guilty for being mean to her. She was able to sense Katerina losing her mind slowly. She admits that Katerina and her children were the only people left for her to call as a family. When Raskolnikov says that her little sister too has to take the job of prostitution once Katerina is dead but Sonya is very firm about not letting her do this job. She wanted to give them a better future. Her position in society made Raskolnikov think that she had only three choices to make—to commit suicide, go insane, and become corrupt by accepting her life as a prostitute. But she has her own choice to make. She believes in God and tells him that God will do something to help her and the children survive. Fortunately, it worked, when Katerina dies Svidrigailov comes forward to help Sonya and those little children by finding a good orphanage and

settling them with a good some of money for their future.

It is also an irresistible fact that there are times when Katerina really feels sorry for Sonya's condition like when she comes up with 30 roubles for the first time doing prostitution Katerina got into Sonya's bed cried for some time and both of them slept peacefully. Katerina has been the only constant supporter of Sonya throughout the novel. When Amalia, the house owner of Katerina speaks ill about Sonya's job, she is the one to defend. To seek revenge Luzhin again uses Sonya. He puts a 100 roubles note into Sonya's pocket without her notice. At Marmeladov's funeral ceremony, Luzhin accused Sonya of stealing his 100 roubles. It was Luzhin who did this in an attempt to revenge Raskolnikov as he made Dunya, Raskolnikov's sister break her engagement with him. It is Katerina who defends Sonya but Raskolnikov stands quiet without coming to her rescue.

Katerina is projected as a figure with opposite qualities compared to Sonya. When Marmeladov explains that Andrey Semyonovitch Lebziatnikov, a man from whom Marmeladov borrows money to buy alcohol, beats Katerina because Marmeladov doesn't return the money he got. Here Marmeladov remarks that regardless of their poverty Katerina refuses to share the bed with Lebziatnikov which is the reason she got beaten badly. This means poverty and Marmeladov's debts didn't cause Katerina to become a prostitute but it made Sonya become one. She doesn't take charge of her family and children's needs but only scolds Marmeladov and Sonya if they return home without money. If she had taken some steps to feed her children, Sonya wouldn't have gotten into prostitution.

Every individual in the novel has their own views about Sonya. For instance, Raskolnikov sees her as humanity's suffering and an angelic figure who sacrificed her life to feed her family. Raskolnikov sees Sonya for the first time when Marmeladov is on his deathbed. From the middle of the novel, she starts to have feelings for Raskolnikov who became a criminal. She was the first person to

whom Raskolnikov confessed his crime. When she comes to know about his crime, she pushes him to seek salvation for his crime by accepting the punishment. It is evident from this incident that she became the lighthouse that guides the confused boat (Raskolnikov) in the right direction. Also, she wanted him to become spiritually strong so that he could lead a better life. Dostoevsky projected Sonya as 'the Suffering of Humanity'. The author has done it beautifully through the voice of Raskolnikov where he says,

[Raskolnikov:] "I bowed not to you [Sonya], but to all human suffering," he uttered almost wildly and moved off to the window. (Dostoevsky, 2014, p. 386)

Whereas there are men like Andrey Semyonovitch who see Sonya's situation as a move to alleviate suffering. He thinks that it is better to suffer as a prostitute than to die of starvation. He also thinks of the position of women in society which is evident when he says...

[Andrey Semyonovitch:] "My opinion – my personal conviction, I mean – is that there can be no more normal state for a woman. And why not? ... but even now she had the right: she was suffering and this was her fund, her capital, as it were, which she had every right to dispose of" (Dostoevsky, 2014, p. 442, 443)

But Luzhin, a wealthy counsellor who offers to marry Raskolnikov's sister Dunya uses her as a tool to shame Raskolnikov in front of his family. At a family gathering, he accuses Raskolnikov of giving money to Sonya and he mentions her as a 'girl of notorious conduct'. But Raskolnikov defends Sonya by telling Luzhin is not even worthy of her little finger.

[Luzhin:] "I have received confirmation of this with my own eyes, in the apartment of a drunk who was run over by horses and died as a result, to whose daughter, a girl of notorious conduct, he gave as much as twenty-five roubles yesterday, ... knowing how much of a struggle it was for you to assemble this sum." (Dostoevsky, 2014, p. 262)

When Sonya went to Raskolnikov's house to invite him to her father's funeral ceremony she was embarrassed to see his family members as she didn't expect too many people there. This is due to her job and status in society. Raskolnikov's mother didn't like her keeping Luzhin's accusation in mind. But Raskolnikov gave her the honour of making her sit next to his mother and sister. Her kindness is visible when she glances at his room saying that he gave them all the money he had, questioning what he would do without a single penny. Despite her poverty and bad circumstances, she is concerned about others which is a rare quality to see in a person. He admires her and wants her to stay even during his personal conversation with his family. She too felt a kind of feeling she never had before.

Raskolnikov, while in Siberian prison sentenced to eight years of hard labor, feels miserable and in deep anguish. Initially in the epilogue, though Sonya follows Raskolnikov to the prison and does everything she can to make him contented but he returns hatred to her. Later when he is almost killed by his fellow prisoners, he has a change of heart. Slowly he falls "head over heels" in love with Sonya and maybe turns to religion. With the help of Sonya, Raskolnikov gets redemption and is reborn from his sin.

Dostoevsky explored various aspects of human nature through his multifaceted female characters from their innocence to victimhood. Dostoevsky's belief in the redeeming power of faith and love is strongly embodied in the character of Sonya. Her initial decision to enter prostitution and later to follow Raskolnikov to the Siberian prison reflects her self-sacrifice and devotion that ultimately led to Raskolnikov's transformation and redemption. Her unwavering faith and humility made her a source of hope and spiritual guidance for Raskolnikov despite her tragic circumstances. Hence, she is celebrated as a Christ-like figure by the author as well as the readers.



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## MEDICAL APPLICATIONS OF CURCUMA LONGA (TURMERIC) - A REVIEW

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### Abstract

*For millennia, Asian cuisine has utilized turmeric, also known as *Curcuma longa*, as a spice and medicinal herb to cure a range of ailments, such as pain, inflammation, wound healing, and digestive problems. Numerous preclinical studies have found that turmeric and its bioactive curcuminoid polyphenols influence a number of chronic disorders. The low oral bioavailability of curcuminoids hindered human studies investigating the efficacy of turmeric and its curcuminoids in treating a range of illnesses. However, because of the development of absorption-enhanced curcuminoid formulations, hundreds of clinical trials exploring the effects of this spice on inflammatory disorders and glucose/lipid dysregulation have been conducted in the last ten years. This narrative summary of human studies discusses the scientific evidence for the potential health benefits of turmeric and its curcuminoids in the treatment of diabetes, metabolic syndrome, and arthritis. It also offers recommendations for future research.*

**Keywords:** *Turmeric, Curcuma Longa, Chronic Illnesses, Curcuminoid.*

### Introduction

Although turmeric has been known for millennia to have anti-inflammatory properties, in-depth studies conducted in the last 20 years have demonstrated that curcumin, also known as diferuloylmethane, is the source of this activity. Numerous transcription factors, cytokines, protein kinases, adhesion molecules, redox state, and enzymes connected to inflammation have all been demonstrated to be regulated by this substance. It has been demonstrated that inflammation is a key factor in the majority of chronic disorders, such as neoplastic, metabolic, cardiovascular, pulmonary, and neurological conditions. The present evidence in this review that suggests curcuma may play a role in the treatment and prevention of a number of chronic proinflammatory illnesses.

Turmeric has a highly strong, nontoxic bioactive ingredient called curcumin, which has been used for generations as a common home cure for a wide range of illnesses. Plant extracts are used for their antiviral, antibacterial, and antifungal properties all over the world. Researchers are looking at the antibacterial chemicals found in plants as a result of bacterial resistance to currently accessible antibiotics and the

Growing acceptance of traditional medicine. Botanically, *Curcuma longa* belongs to the Zingiberaceae family, which includes medicinal plants (Chattopadhyay et al., 2004). Commonly referred to as "turmeric," *C. longa* is well-known for its therapeutic qualities and is used extensively as a spice and coloring ingredient (Luthra et al., 2001).

It fights cancer at the start, promotion, and advancement stages of tumor formation because it includes a potent combination of antioxidant phytonutrients called curcuminoids. Strong antioxidant that promotes intestinal health, has neuroprotective effects, and aids in preserving the integrity of the cardiovascular system (Luthra et al., 2001).

According to tests conducted by Chopra et al. (1941), *C. longa* oil inhibited the development of *S. albus* and *S. aureus* in cultures of *S. albus*, *S. aureus*, and *Bacillus typhosus* at doses of up to 1 to 5,000. The effectiveness of several turmeric types on certain bacteria was studied in this study in light of the significant function that turmeric plays in inhibiting the growth of various bacterial cultures as well as its roles as an antioxidant and an antibacterial.

### Medical Application for Turmeric

**Elevated cholesterol** According to research, giving overweight individuals with high cholesterol two times a day or more of turmeric extract orally for three months lowers their triglycerides, low-density lipoprotein, or "bad," cholesterol, and total cholesterol.

**Arthritis of the bones.** According to some research, consuming extracts of turmeric, either by themselves or in conjunction with other herbal substances, can help persons with osteoarthritis feel less pain and perform better.

**Pruritus (itching).** Studies indicate that administering turmeric orally three times a day for eight weeks can lessen itching in individuals with chronic renal disease. Additionally, preliminary studies indicate that administering a particular combination medication (C3 Complex, Sami Labs LTD) that combines curcumin with either black pepper or long pepper on a daily basis for four weeks lessens the intensity of itching and enhances quality of life in individuals experiencing persistent itching due to mustard gas.

**Uveitis (inflammation of the eyes).** According to preliminary studies, consuming the compound curcumin, which is present in turmeric, may help reduce the signs and symptoms of chronic inflammation in the central layer of the eye.

**Cancer of the colon.** According to preliminary research, ingesting a certain turmeric product (P54FP, Phytopharmplc., Godmanchester, United Kingdom) that contains both Javanese and turmeric extract may stabilize various colon cancer metrics. **Coronary artery bypass graft surgery, also known as bypass surgery.** According to preliminary studies, consuming curcuminoids, which are compounds included in turmeric, for five days after surgery and beginning three days prior to surgery may reduce the risk of a heart attack after bypass surgery.

**Cancer-related skin wounds.** According to preliminary studies, using a turmeric ointment could help reduce odor and itching from wounds connected to various cancer types.

**Crohn's disease,** a subtype of inflammatory bowel disease. There is evidence that individuals with Crohn's disease may experience less diarrhea, bowel motions, and stomach pain if they take the compound curcumin, which is present in turmeric, on a regular basis for a month.

**Depression.** According to preliminary studies, giving people with depression twice daily doses of curcumin, a compound present in turmeric, for six weeks is just as beneficial as giving them fluoxetine, an antidepressant drug.

**Diabetes.** According to preliminary studies, ingesting two grams of turmeric extract twice a day for nine months may lower the percentage of prediabetes patients who go on to acquire diabetes.

**Distressed stomach (dyspepsia).** According to some study, taking four times a day for seven days by mouth with turmeric may help soothe upset stomachs.

**Gingivitis, or gum illness.** According to preliminary studies, using a mouthwash infused with turmeric can reduce gum disease and the amount of bacteria in the mouths of patients who have gingivitis just as well as mouthwashes prescribed with medication.

**Helicobacter pylori (H pylori)-induced stomach ulcers.** According to preliminary studies, there is less efficacy for treating stomach ulcers caused by H. pylori bacteria while taking turmeric daily for four weeks.

**Syndrome of the irritable bowel (IBS).** According to preliminary studies, taking a daily supplement of turmeric extract (Cynara Turmeric, LchtwerPharma) for eight weeks will lessen the incidence of IBS in otherwise healthy individuals who already have the condition.

**Pain in the joints.** According to research, taking a certain combination product (Instaflex Joint Support, Direct Digital, Charlotte, NC) three times a day for eight weeks lessens the intensity of joint pain. The medication contains turmeric and other components. However, it doesn't seem to lessen joint stiffness or enhance joint performance.

Dermatitis (Lichen planus). Lichen planus-induced skin irritation can be lessened by taking a specific product (Curcumin C3 Complex, Sabinsa Corp) that contains compounds found in turmeric three times a day for a period of twelve days.

Cancer of the prostate. Prostate specific antigen (PSA) levels in men with prostate cancer may be prevented from rising by consuming a combination including broccoli powder, turmeric powder, pomegranate whole fruit powder, and green tea extract three times a day for six months.

Radiation therapy-related oral and/or esophageal inflammation. According to preliminary studies, individuals with head and neck cancer may experience a decreased risk of radiation-induced inflammation in their mouth, esophagus, or both after swishing a turmeric solution six times a day for six weeks.

Arthritis Rheumatoid (RA). According to preliminary studies, the compound curcumin, which is present in turmeric, may be able to lessen the symptoms of RA, such as morning stiffness, walking time, and joint swelling.

Get well after surgery. According to preliminary studies, taking the compound curcumin, which is present in turmeric, once a day for up to one week following surgery may help lessen discomfort, weariness, and the need for painkillers.

Systemic Lupus Erythematosus (SLE), an inflammatory disease. According to preliminary findings, administering turmeric orally three times a day for three months can lower blood pressure and enhance renal function in patients suffering from systemic lupus erythematosus-related kidney inflammation (lupus nephritis)

Tuberculosis. Early studies indicate that consuming a supplement containing *tinospora cordifolia* and turmeric can promote wound healing, lower liver damage from antituberculosis therapy, and lower bacteria levels in tuberculosis patients receiving antituberculosis therapy.

Ulcerative colitis, a subtype of inflammatory bowel disease. When combined with traditional therapies, taking the compound curcumin, which is

present in turmeric, once a day for up to six months may help lessen ulcerative colitis symptoms and recurrence. People with this illness may benefit from using turmeric extract as an enema, according to additional studies.

### Conclusion

Given the extremely low bioavailability of the limited levels of curcuminoids found in turmeric powder, it is doubtful that incorporating substantial amounts of turmeric powder into food for flavoring will have a major positive effect on health for the conditions being studied. However, because of inconsistent results from widely differing quality trials and a lack of information regarding the protective effects of curcuminoids, their safe usage, and their interactions with other medications, it is too soon to recommend curcuminoids as a supplement to improve health in a clinical setting or in the general public.

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# TRANS-CONTINENTAL CONTINUATION OF THE AFRICAN TRADITIONAL RELIGION BY THE PIRAMALAI KALLAR TRIBE IN TAMIL NADU

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## **Abstract**

*The mystery and controversies over the origin of the Dravidian race that persisted for centuries on an unscientific mythological base has been unravelled by the findings in some of the recent studies in Genomics research. Regarding the religion of the Dravidians' religion, history has nothing more to reveal other than labelling them as Hindus which remain unquestioned till date. When it became an established truth Dravidians migrated from Africa into India, they are found to have retained their African DNA marker in their blood. A question arose. Why would not they have brought with them their Afro-centred socio-cultural, religious faith and practices? Though reasons and routes of Dravidian migration have been analysed biotechnologically, the socio-cultural aspects are yet to open their accounts in research banks of Historical Sciences. Many socio-cultural and religious practices in vogue found among the Dravidians of the southern states of India may not help prove the objective. Comparing such social customs and religious practices unique to both African and Piramalai Kallar tribes, different from that of the vedic religious practices, shall attest the biotechnological scientific truth of the origin, migration and practice of pre-vedic religion of the Piramalai Kallar tribe. The impetus given by science to the training of observation has sharpened the eye of the historian during the knowledge era. Initial collection of facts brought out many striking similarities between African tribes' and the Piramalai Kallar community regarding socio-cultural, African Tradition Religion (ATR) and worship practices.*

**Keywords:** *Human Origin; Human Migration; Trans-Continental ATR Continuation; Piramalai Kallars ATR. Ancestor Worship.*

## **Introduction**

In the absence of well-established historical facts, alternatives that enter into archives become a compelled belief. In colonial India, the Census enumeration was caste-based. The Census reports during 1890s reported the origin of any caste based on either speculation or mostly drawn from oral history. History is written at times along the lines of least resistance from even the concerned and this is true in the case of castes and tribes in India. Many a time such resistance, even if it was there, did not enter into the annals of history. Gone are the days when history was also with the rulers, administrators, poets and playwrights. The emergence of a scientific discovery related to race movement and human settlement add facts to the origin of humanoids in general and historical aspects of the Dravidians in particular.

In general, the rewriting of history is made necessary because large classes of materials previously unknown or neglected happen to be placed at the service of the historian. A "reliable and established body of scientific evidences" need to supplant the "subjective impressions and traditional assumptions" had so far prevailed and strongly believed too. All this has to be substituted by scientific truth-based historiography of the Piramalai Kallar tribe.

## **Genomics Delivers Human History**

Humanoids originated in Africa about 200,000 years before present (ybp) as reported in genomic studies. During the period 55,000 to 85,000 ybp, they started moving Out of Africa Based on the geological findings, it was reported<sup>208</sup> that during the East African mega droughts between 135,000 and 75,000

ybp, the water volume of the Lake Malawi got reduced by at least 95%. The timing of this mega drought coincided with the timing of migration of modern humanoid out-of-Africa. It is well established that a relatively small group of modern humans ventured out-of-Africa through the southern coastal route to colonize the Middle East, India, Southeast Asia, Australia and subsequently the other parts of the globe. This indicates that India served as one of the important corridors for human migration. A documentary film covering the origin and migration of humanoid was telecasted in a two hour special programme of the National Geographic Channel on 14th December 2012.

The mtDNA of Virumandi Andithevar, one of the 700-odd inhabitants of Jothimanickam village, located in the west of Madurai, matched the chromosome marker scientifically labelled "M130", which is a gene found only among the descendants of the African migrants who had spread across the world tens of thousands of years ago. "This young man and 13 members of his nine-generation clan carried the same marker in their genes. This reveals the scientific truth that his ancestors in all probability settled in this village several generations ago," said Prof. RM. Pitchappan, who led a team of scientists tracking the "M130" mtDNA and ended up at Virumandi's little house. RM. Pitchappan's findings backed up by similar findings in various other studies revealed significant levels of the same gene marker in Piramalai Kallar caste, Yadava and Saurashtra castes/communities lead to the postulation of a route of migration of Man from Africa to Australia.

### **Topic of the Present Study**

The topic for the present study is the "Trans - continental continuation of the African Traditional Religion by the Piramalai Kallar Tribe in Tamil Nadu".

### **Piramalai Kallar Tribe: A Dravidian Component**

Dravidian as an ethnic division in India includes a number of castes and tribes and is found mostly in southern parts of India today though it is said to have populated once the various parts of northern parts of

India. Piramalai Kallar tribe is a component of the Dravidian race as well as a subgroup of the Kallar caste – a major subdivision of the Mukkulathar found in Tamil Nadu. There are a number of sub castes among the Kallar caste including the Piramalai Kallar tribe. They are dark-skinned and eat meat (except beef). A general account by Dumont describes, Divorce, widow remarriage, burial of the dead, nadu (territory), exogamy, cross-cousin marriages and female infanticide are practiced. Piramalai Kallar tribe is a territorial community. Officially, they have been categorised under tribes of south India during the administration of the Colonial Government in the Madras Presidency of the pre independence period

### **Need for the Study**

RM. Pitchappan's (Madurai Kamaraj University) findings backed up by similar findings in various other studies revealed significant levels of the same gene marker in Piramalai Kallar caste, Yadava and Saurashtra castes/communities lead to the postulation of a route of migration of Man from Africa to Australia. When it became an established truth Dravidians migrated from Africa into India, they are found to have retained their African DNA marker in their blood. New facts attest the findings of the many earlier history oriented empirical studies, linking the Dravidian to the African tribe. The DNA marker of the African tribe is stronger in the Piramalai Kallar tribe than in any other caste population.

### **Scope of the Study**

The scope of the study falls within the purview of comparative religion from an Anthro-historical perspective and not a theological one. In general, the study of religion is principally divided into five major areas namely Philosophy of religion, Psychological experience of religion, Phenomenology of religion, History of religion, and Theology of religion. Among the above five categories, the present investigation falls under the fourth category namely history of religion as prescribed by John A Hardon. At its core, this treats the African Tradition Religion and its replica found in the family

lineage worship pattern (ancestor worship) of the Piramalai Kallar tribe. At the base, the study provides an elaborate coverage to the Dravidian as well as one of its components Piramalai Kallar caste and to the prehistoric. The present study takes into account the established theory of Y chromosome based migration of humanoid explicitly bringing out the Afrocentricism of human race and one of its emigrants that reached India, identified as Dravidian. The investigator wants to make it clear, that earlier studies with their hunches and hypotheses for and against Africological origin of Dravidian and their migration, its period and routes are neither summarily rejected nor totally accepted. There are differences in the identification of period even between archaeological and Genomic Anthropology research findings. Moreover, the period specification can be only relative and not absolute for any concept belonging period. The beginning phase of Dravidian history belongs to the prehistoric period. The critical indicators of interdisciplinarity in this research include evidences so as to make the integrative synthesis of different from, and greater than the sum of its parts.

### Research Question

A question arose. Why would not have the Piramalai Kallar tribe brought with them their Afro-centered socio-cultural, religious faith and practices to India? Among the various subdivisions of the Kallar community, it is the Piramalai Kallar tribe that retains the various practices found among the African tribes. Piramalai Kallar forms the unit of study with Kallarnadu as their area of domicile in the present investigation. Historians vouchsafe to the fact that the Piramalai Kallar is one of the longest living human tribes in India and one of the oldest in the world. The Piramalai Kallar constitute an important community not only due to their sheer numbers but also to the fact that they are nucleated in a narrow geographic area. Dubeau's expression is a true representation of the term, territorial community denoting the Piramalai Kallar who a territorial community have named their territory as Kallarnadu. Piramalai Kallar tribe who are found in a majority

among the population in Theni, Usilampatti and Thirumangalam near Madurai in Tamil Nadu, were studied for blood groups correlating their immunity (Biomedical) by RM. Pitchaiappan initially. But the genetic evidence was leading to other exciting conclusions like the Piramalai Kallar caste have the same genetic marker as that of the African tribes and Australian tribals, and also found in Central Asian people.

### Transcontinental Continuities

Piramalai Kallar caste alone maintains the Transcontinental continuities of the African tribes' social and religious practices. This investigation discusses the approaches towards identity-building of the Piramalai Kallar tribe who have their genetic origin rooted in African forebears preserving their worship pattern, in all probabilities standing a proof to the Africa's transcontinental continuities in south India. Many socio-cultural and religious practices in vogue found among the Dravidians of the southern states of India may not help prove the objective. Comparing such social customs and religious practices unique to both African and Piramalai Kallar tribes, different from that of the vedic religious practices, shall attest the biotechnological scientific truth of the origin, migration and practice of pre-vedic religion of the Piramalai Kallar tribe.

Similarities are abound between these two tribes regarding the structure of lineage based family and well defined kinship based society which are fundamental requirements to the concept of Ancestor worship. Categorising Piramalai Kallar tribe under Vedic Hinduism proves to be a biased account. Similarities are found between the African Traditional Religion and that of the Piramalai Kallar tribe as well as ethnic features which cannot be ignored. When two peoples at some distance from one another possess some peculiar implement, design, myth, in common it may well have been transferred by trade, migration or a spreading influence.

Though a link between the African and Dravidian was empirically established, the probability of a link-ethnic and religious in nature

was not thought of so far because History could not progress further from the African-Dravidian demographic link which was discouraged by criticism and controversies for want of records and stronger evidences.

### **Socio-Cultural Similarities**

Selective and distinct socio-cultural features, rare among other Dravidian communities only are discussed here under. Similar to the African tribes, Piramalai Kallar caste is a territorial community. They continue to live in Kallarnadu with demarcated geographical boundaries. Kinship, family deity and religious practices among the Piramalai Kallar tribe and African tribes have several similarities in character and practices. The Kinship and religious practice of the Piramalai Kallar tribe could be traced by knowing the practices of the African tribes. Both these tribes are found to possess many similarities in their traditions, culture and conventions though with slight variation in their divines and pantheons.

### **Naming Ceremony of the New Born**

The newborn child is brought to be introduced to the spirits and receive a name while the occasion is marked by sacrifices. While giving names, ancestor names and names of the lineage deities are preferred. Among the Piramalai Kallar caste families, the new born child is brought to the family lineage temple for naming the child.

Though the parents may prefer a modern or sanskritised name, the Pooari provides the name of an ancestor or that of a deity which may happen to be the name of anyone of the grandparents. The occasion of naming may be simple while the ear boring and tonsuring may be mostly a ceremony amidst the kith and kin as well as relatives and friends.

### **Circumcision Ceremony**

Circumcision is a common practice among the tribes of Africa while here in India, it is pertained to Muslims only. Piramalai Kallar alone has this practice and no other Hindu community adopt this. Circumcision is meant for the male members only.

The procedures as Wagner observed took only about ten seconds, the operators are in competition for the number they do in a day and there is also here the element of surprise. No medicine is applied to the wound to stop the bleeding which commonly continues for thirty or forty minutes after the operation has been performed.

### **Pluralism: Mutual Gifting (Moy/Illa Thiruvizha)**

Wherever Africans meet, they create avenues for continuous meeting and sharing. Pluralism, apart from localizing the sense of kinship, through clan system provides closer human co-operation, especially in times of need. True to this pluralism, when Nigerians meet elsewhere outside their native territory, and identify themselves, they fix days for further meeting and come together to share the successes and difficulties of one another. While summing up poetically in beautiful words with a wonderful meaning, the African view of a person is given thus: — I am because we are, and since we are therefore I am, which a popular saying among African tribes is. Kinship in Africa survives on the contributions of individual endowments. It is in this regard that contributors opined that the African admits pluralism, but harnesses it and makes proper use of it.

### **African Traditional Religion (ATR)**

When one goes for a deep study of the African Traditional Religion, the study would help to derive the nature of Piramalai Kallar tribe's conventional religious practices and other associated characteristics. Culture is generally seen as peoples' way of life. It could be referred to as a kind of good knowledge, handed from one generation to the other so that each can take advantage of the experience of the previous ones. It is passed from parents to children. Culture may be passed on to children in many ways: through marriage ceremonies, initiation ceremonies or through teaching of morals and ways of doing things like farming, hunting, fishing, and so on. Culture is the whole body of knowledge, beliefs, arts, law, norms, morals, customs, values, habits and



all other capabilities, acquired by man as a member of society.

It has no founders or reformers like Gautama the Buddha, Asoka, Christ, or Muhammad. It is not the religion of one hero. It has no missionaries, or even the desire to propagate the religion, or to proselytise. However, the adherents are loyal worshippers and, probably because of this, Africans who have their roots in the indigenous religion, find it difficult to sever connection with it. This is a religion that has no written literature. For those who care to see and read. It is largely written in the people's myths and folktales, in their songs and dances. It is a religion whose historical founder is neither known nor worshipped. It is a religion that has no zeal for membership drive, yet it offers persistent fascination for Africans, young or old. African Traditional Religion is therefore a religion that has been with Africans for many generations, and with which they have lived their lives and solved their existential problems from time immemorial. It is a religion that is co-terminus with the African people and their society. In an exactly similar way, —the religion of the Piramalai Kallar caste has neither a historical founder nor written literature of its own while their religion remains in unwritten conventions.

Each of the lineages in a tribe had their own separate worshipping place making the number a higher one. Some western historians could not correlate the good number of ancestors to different lineages and hence expressed in many ancestors.

Justified is the observation of Spencer in his remarks that ancestor worship is the rudimentary form of all religion as this religion of the Africans is the foremost one, they being the first parents to humanoids. "Ancestor worship" among the African tribes is the religion of the African tribals. It is known as African Traditional Religion. It is not all the ancestors who would have died till yesterdays but the first ancestor who lived as a human being and was the creator of the clan. As ethnographic evidence since the middle of the 20th century. demonstrated that everyone do not necessarily become ancestors automatically after they die.

### Conclusion

The present study takes into its purview the issue of origin and migration of human race which has for the

first time substantiated the genomic link of the Piramalai Kallar caste to the African tribes, rendering all the probabilities of revisiting the concept of family deity worship of Piramalai Kallar caste in order to be compared with its source founder. Though the Mitochondrial Deoxyribonucleic Acid is found in varying degrees in the blood of castes and tribes of Indian population, the genomic distance between the African tribes and the Piramalai Kallar is less while compared with the former. The African tribes and the Piramalai Kallar tribe share in common not only the mitochondrial DNA but also the Ancestor worship. This proves false the so far believed premise that brought the worship pattern of the Piramalai Kallar tribe under Vedic Hinduism. This tribe alone in south India among the Dravidian sticks on till today to the Ancestor worship which happens to be the major religious practice among African tribes.

Among a wider spectrum of socio-cultural history, worship pattern is one. In the case of Piramalai Kallar caste, one specific aspect that remains distinct from their fellow caste populations is the uniqueness of their Ancestor worship pattern. They worship their ancestors and this worship pattern remains unabated till today. This is due to the fact that this caste did never accept the Brahminical pattern but also has been clinging on to their tradition of worship, prevedic in nature. They have retained a system of their own prevedic practice which they should have brought at the time of their migration from Africa into the Indian subcontinent.

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# MACHINE LEARNING TECHNIQUES IN SPAM FILTERING PRINCESS

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## Abstract

*Email, a ubiquitous and cost-effective communication tool, faces an escalating threat from spam, posing financial risks to businesses and disrupting user experiences. This research undertakes an in-depth investigation into the realm of spam filtering, specifically focusing on the integration of machine learning techniques to address the evolving challenges presented by email-based threats. Recognizing the inadequacy of traditional measures, this study systematically evaluates the effectiveness of various machine learning algorithms in classifying spam messages. Through a rigorous comparative analysis, the research identifies the strengths and weaknesses of these algorithms, offering valuable insights for the development of adaptive and robust spam detection systems. The ultimate goal is to contribute to the ongoing efforts in enhancing email security by striking a delicate balance between efficient spam filtration and the preservation of legitimate communication channels. This research provides a nuanced understanding of the evolving landscape of spam filtering, presenting a foundation for the development of more effective and adaptive solutions in the ongoing battle against email spam.*

## Introduction

In today's digital landscape, email has evolved into an indispensable tool for personal and professional communication. However, the widespread use of email has also attracted the attention of cyber attackers, particularly through the distribution of spam. Spam emails, often containing unwanted or deceptive content, present significant risks to individuals and organizations alike. As the volume and sophistication of spam continue to rise, traditional rule-based spam filters are struggling to keep pace, leaving users vulnerable to evolving threats.

To tackle this challenge, the integration of machine learning techniques into spam filtering systems has emerged as a promising solution to bolster email security. Machine learning, a subset of artificial intelligence, empowers systems to learn patterns and make decisions based on data without explicit programming. By leveraging the capabilities of machine learning algorithms, spam filters can adapt to the dynamic nature of spam, continually enhancing their ability to differentiate between legitimate and malicious emails.

This paper delves into the application of various machine learning techniques in spam filtering to enhance the accuracy and efficiency of email security. The discussion encompasses a comprehensive review of diverse methods, spanning from traditional algorithms to cutting-edge deep learning models, employed for the identification and categorization of spam. Each approach's advantages and limitations are critically assessed, providing valuable insights for researchers and practitioners to select the most suitable techniques for their specific requirements.

Moreover, this paper explores how feature engineering and dataset characteristics influence the performance of machine learning-based spam filters. Understanding the impact of different features and the quality of training data is crucial for developing robust systems capable of adapting well to diverse and evolving spam patterns.

The research presented herein not only contributes to academic discussions on machine learning in cybersecurity but also offers practical insights for email service providers, businesses, and individuals aiming to fortify their defenses against the ever-evolving threat of spam. Through a detailed

analysis of machine learning techniques, this paper aims to lay the foundation for advanced and adaptive spam filters capable of effectively countering the continuous onslaught of spam in the digital communication landscape.

### **Statement of the Problem**

The primary objective of this research is to evaluate and enhance the effectiveness of machine learning techniques in the context of spam filtering. By systematically examining various methodologies, ranging from traditional algorithms to advanced deep learning models, we aim to identify the most efficient and adaptive approaches for distinguishing between legitimate and malicious emails. Additionally, we seek to investigate the impact of feature engineering and dataset characteristics on the performance of machine learning-based spam filters, providing valuable insights for optimizing these systems. Through this research, we aspire to contribute to the development of robust and adaptive spam filters that can effectively mitigate the evolving challenges posed by spam in the digital communication landscape.

### **Methodology**

Spam filtering methods predominantly rely on text categorization techniques, transforming the challenge into a classification problem. This research employs rule-based feature extraction to address the nuanced characteristics of discriminating spam. Given the ambiguous nature of these features, machine learning techniques become instrumental in enhancing classification accuracy. Three distinct machine learning algorithms—C4.5 Decision Tree Classifier, Multilayer Perceptron, and Naïve Bayes Classifier—are employed to construct the classification model.

### **MultiLayer Perceptron**

The Multilayer Perceptron (MLP) network, a widely adopted neural network classifier, is utilized in this study. Known for its flexibility, nonlinearity, and versatility, MLP networks consist of layers of units with varying complexities. With sufficient hidden units and data, MLPs exhibit the capability to

approximate any function accurately, establishing them as universal approximators. MLPs prove invaluable in scenarios where the relationship between input vectors and corresponding outputs is not well-defined.

### **Decision Tree Induction**

The C4.5 Decision Tree Classification method generates a binary tree-like structure representing decision-making processes. Each branch node signifies a choice between alternatives, while each leaf node denotes a classification or decision. The J48 algorithm, an implementation of C4.5 decision tree learning, facilitates the scalable generation of decision tree models. This approach is effective even with varying numbers of training examples and attributes in large databases.

### **Naïve Bayes Classification**

The Naïve Bayes Classifier (NB) is a straightforward yet powerful classification technique rooted in Bayesian theorem. Suited for high-dimensional input scenarios, Naïve Bayes classifiers assume independence of variable values on a given class from the values of other variables. Leveraging Bayesian probabilities, the Naive-Bayes inducer efficiently computes conditional probabilities and selects the class with the highest posterior, making it well-suited for supervised learning.

### **Feature Extraction**

The subject of classification in this context revolves around text messages, presenting an inherent challenge in handling such data. Machine learning algorithms primarily operate on numerical objects or vectors, necessitating the transformation of text messages into feature vectors. Commonly, messages are represented as vectors based on the occurrences of specific words. However, the design of the feature extractor holds significance, as an inadequately defined feature set may result in misclassifications. The selection of features plays a crucial role in classification performance, potentially encompassing information beyond the message text, such as the analysis of internet hosts in headers. Although the

primary focus of this article is not on feature extraction, it underscores the substantial impact of feature selection on filter performance.

Transitioning to algorithms that require a distance metric or scalar product for message sets, while suitable metrics like edit distance exist, their computational complexity imposes practical limitations. Consequently, this research opts for feature vector extraction, leveraging the distance/scalar product of these vectors. It is acknowledged that the absence of sophisticated feature extractors represents a limitation in this approach.

### Classifier Performance

The performance criteria for a spam filter deviate from those typical of a standard classifier. Misclassifying a junk message as legitimate is a manageable issue, but erroneously categorizing legitimate mail as spam is deemed unacceptable. Such instances of false positives undermine the efficacy of spam filtering, necessitating users to routinely review the "spam folder" and eroding user trust. Striking a delicate balance is a formidable challenge, as enhancing the importance of classifying legitimate mail correctly may lead to an algorithm that overly designates messages as non-spam, rendering it impractical.

While certain safety measures can alleviate filter errors, guaranteeing the absence of false positives proves challenging. Fine-tuning parameters in learning algorithms to prioritize legitimate mail introduces a nuanced balance, as excessively favoring non-spam classification may compromise filter effectiveness. Potential compensatory strategies include sending a reply to the sender of a misclassified message, prompting them to resend to another address or include specific words in the subject. Another viable approach involves estimating the certainty that a message is spam, organizing the user's mailbox based on this certainty to mitigate the repercussions of misclassifications.

### Results

The PU1 corpus, collected by Ion Androustopoulos, consists of 1099 preprocessed email messages for

spam detection. The corpus is divided into 10 parts for 10-fold cross-validation, with one part used for validation and the rest for training. The messages underwent preprocessing, including attachment, HTML tag, and header field removal, and were encoded with numbers.

Four versions of the corpus were created, and tests indicated that the version processed by both a lemmatizer and a stop-list performed best. The feature vector for each message, with 21700 attributes representing words, was used for classification. The algorithms evaluated were Naïve Bayes, k-NN, Perceptron, and SVM.

The surprising result was the excellent performance of the Perceptron, outperforming even SVM. Naïve Bayes showed no false positives, likely due to the implementation. Attempts to eliminate false positives led to the selection of SVM (soft margin) and Naïve Bayes with tuned parameters as effective spam filters.

Combining classifiers (Naïve Bayes and SVM) through a union operation improved precision but with a slight increase in false negatives. Further enhancement involved adding a third classifier, like the Perceptron, resulting in a 2-of-3 rule for classification. This approach aimed to balance false positives and negatives, offering a potential improvement in overall performance.

### Conclusion

Machine learning techniques for spam filtering using the PU1 corpus, assessing algorithms like Naïve Bayes, k-NN, Perceptron, and SVM based on error rates, precision, and fallout measures. Notably, the Perceptron exhibited remarkable performance, surpassing SVM, while Naïve Bayes showed no false positives, likely due to its implementation. Fine-tuning efforts identified SVM (soft margin) and Naïve Bayes with adjusted parameters as effective spam filters. Combining classifiers through a union operation improved precision, albeit with a slight increase in false negatives. The introduction of a third classifier, such as the Perceptron, using a 2-of-3 rule aimed to balance false positives and negatives. These findings underscore the potential of combining

machine learning classifiers for enhanced spam filtering, emphasizing the significance of parameter tuning and algorithm selection tailored to specific datasets in the dynamic landscape of optimizing spam detection systems.

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# PROBLEMS OF WOMEN MICRO ENTREPRENEURSHIP THROUGH SELF HELP GROUPS IN MADURAI DISTRICT

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## **Abstract**

*Self-Help Group has played a major role in the awareness, creating and economic upliftment of women. It has been measured up to what extent the Self-Help Groups have been successful to inculcate the quality of self-dependence, leadership and entrepreneur qualities among women. Primary data has been collected. 100 SHG members were randomly selected and interviewed. Majority of the respondents reported that they faced psychological problem. Most of the respondents reported that they are facing family problem. They first of all wanted that support of family members. Provisions should be made for maintaining equal status of women with that of men in the society. There should be implementation of various programmes for empowering the women, both economically as well as socially.*

## **Introduction**

Self-Help Group can play a vital role in the socio-economic upliftment of women. The Self-Help Group is viable alternative to achieve the objectives of rural development and to get community participation in rural development programmes. They enhance the equality of status of women as participants, decision maker and beneficiaries in the economic, social and political. Self-Help Group has played a major role in the awareness, creating and economic upliftment of women. It has been measured up to what extent the Self-Help Groups have been successful to inculcate the quality of self-dependence, leadership and entrepreneur qualities among women.

Empowerment of women through self-help groups would lead to benefits not only to the individual women and groups but also for the family and community as a whole through collective action for development. These groups have a common perception of need and an impulse towards collective action. Empowerment of poor women is a process that enables individual and groups to realize their full identity and powers in all sphere of their life. Self Help Group play a major role in sensitizing more women to form SHGs and in making them realise its importance in their empowerment. This helps the women collective decision making and also to

enhance the confidence and capabilities of the women.

The role of women and the need to empower them are central to human development programs including poverty alleviation. In spite of various programs relating to poverty alleviation has been started, it was observed that woman in rural areas, especially from the poor families could be benefited. An empowerment movement among women across the country has been now turned by rapid progress in SHG formation. Economic empowerment of rural women results in women's ability to influence or make decision, increased self-confidence, better status etc. The formation of SHGs is not ultimately a micro credit project but an empowerment process. The empowerment of women through SHGs would give benefit not only to the individual women but also for the family and community as a whole through collective action for development.

## **Statement of the Problem**

The status of women in India has been changing as a result to growing industrialisation and urbanisation and social legislation. With the spread of Education and awareness more women are participating in Micro Entrepreneurship. Even the government has laid special emphasis on the need for conducting entrepreneurial training programmes for women to enable them to start their own ventures. However,

women entrepreneurs face many challenges in running their business successfully. The study is undertaken with a view to analyse the problems of women micro entrepreneurs through SHGs in Madurai District.

### Objectives of the Study

- To identify the problems faced by SHG sample women respondents in Micro enterprises.
- To provide suggestions for women micro entrepreneurs based on findings of the study.

### Review of Related Literature

Arundhathi Chattopadhyay, in his article, "Women and Entrepreneurship" explains that the economic empowerment is *sin qua non* for elevating the status of women in our society. Women Enterprises in India, face numerous problems in establishing as well as the successful running of their business. For instance, problems cited pertain mostly to obtaining finance. Delay in the process and providing collateral security often as a consequence of insensitivity to particular situations of women or due to gender issues.

Sujata Mukherjee in her study explains the "Profiling the Urban women entrepreneurs in India" The study aimed to determine the entrepreneurial and socio-economic characteristics of women entrepreneurs and to analyse the reason for venturing into the micro entrepreneur sector. The majority of the entrepreneurs ventured into business to support family's earnings.

### Methodology

The present study is based on primary data. Primary data has been collected from women micro entrepreneurs through SHGs in Madurai District with the help of Interview schedule. 100 SHG members were randomly selected and interviewed five members from each SHG. The data were analysed and interpreted by using statistical tools like Garret Ranking.

### Problems of Women Micro Entrepreneurs

Women entrepreneurs face a series of problems right from the beginning till the enterprise. Being a

woman, itself poses various problems to a woman entrepreneur, the problems of Indian women pertain to her responsibility towards family, society and lion work. The tradition, customs, socio cultural values, ethics, motherhood subordinates to ling husband and men, physically weak, hard work areas, feeling of insecurity, cannot be tough etc are some peculiar problems that the Indian women are coming across while they jump into entrepreneurship. Women in rural areas have to suffer still further. They face tough resistance from men. They are considered as helpers. The attitude of society towards her and constraints in which she has to live and work are not very conducive. This paper explains the problems faced by the sample women respondents of the Self-Help Groups (SHGs). Sample respondents are asked whether they are facing any problems or not in performing their role in the group. It is found that each group has its own problems similar as well as dissimilar to other groups.

In this section an attempt is made to investigate the problems encountered by women beneficiaries. The researcher classified them into 5 domains namely

- Social Problems
- Economic Problems
- Family Problems
- Psychological Problems
- Group Problems

A list comprising all possible problems has been prepared and after pretesting, it has been fine-tuned and finalized. The responses have been sought out under two categories of Yes and No and weighted scores of 2 and 1 are assigned respectively. The mean score of each and every problem had been calculated by using the formula

Mean = Total Score/ Number of respondents The problems have been ranked on the basis of mean score. The overall mean score calculated for each category of problems have been studied.

### Social Problem

Women SHG in India are always seen with suspicious eyes, particularly in rural areas, they face more social problems. In rural areas, women lack



family support. They cannot avail financial freedom. The following Table 6.1 represent the social problems of rural sample women respondents.

**Table 1 Social Problems of Women Micro Entrepreneurs**

Social Problems	Mean Score Values	Rank
Lack of Self confidence	30.0	II
Multi responsibility	34.0	I
Male Domination	13.67	V
Lack of Exposure	12.67	IV
Fear of Social security	19.33	III
<b>Overall mean Score</b>	<b>109.67</b>	

**Source:** Primary Data

This table indicate that the social problems viz., Multi Responsibility was ranked first the mean score value being 34, followed by Lack of Self Confidence which was ranked II (30), Fear of Social Security was ranked III (19.33), Male Domination was ranked IV (13.67), and Lack of Exposure was ranked V (12.67), the overall mean score 109.67 value of each problems indicate the social problems of rural women empowerment.

### Economic Problems

As generally women SHG will have small scale business, they have to strive hard to sell their products in the modern competitive world. Their marketing knowledge will be less and lack of marketing skills as compared to men. The following table 2 represents the economic problems of rural sample women respondents.

**Table 2 Economic Problems of Women Micro Entrepreneurs**

Economic Problems	Mean Score Values	Rank
Family responsibility	39.13	II
Low economic Status	19.67	V
Lack of Family Support	39.93	I
Low benefit from group	25.08	III
Low general Knowledge	24	IV
<b>Overall mean score</b>	<b>147.81</b>	<b>III</b>

**Source:** Primary data.

This Table envisages that the rank order of economic problems viz, Lack of Family Support was ranked first (39.93) followed by Family Responsibility ranked II (39.13), Low benefit from group was ranked III (25.08), Low general Knowledge was ranked IV (24) and the women of the family in service are not free to spend their income independently' was ranked V (19.67). The overall mean score was 147.81. The mean score value of each problems indicates the economic problems of rural women.

### Family Problems

Indian SHG women also suffer from the problem of family for starting a business. Further, they also lack a moral support from their family members including parents, husband etc. They are enclosed within their personal and family obligations, which are greater barriers to them. They play various role at the same time (i.e., mother, wife, daughter, etc.) so they also face problem of role conflict. When a women wants to emerge as an entrepreneur, the dual roles make her to devote less time for work. The following table 3 represents the family problems of rural sample women respondents.

**Table 3 Family Problems of Women Micro Entrepreneurs**

Family Problems	Mean Score Values	Rank
Lack of Co operation	37.7	III
Opposition by Husband	26.0	IV
Family Tension	38.3	II
Husband Alcoholism	23.0	V
Lack of sufficient time to look after her children	44.3	I
<b>overall mean score</b>	<b>169.3</b>	

**Source:** Primary data.

This Table shows that the rank order of family problems viz, Lack of sufficient time to look after her children was ranked first (44.3) followed by Family Tension ranked II (38.3), Lack of co operation was ranked III (37.7), Opposition by husband was ranked IV (26) and Husband Alchcolism was ranked V (23). The overall mean

score was 169.3. The mean score value of each constraint indicate the family problems of Self-help group rural women.

### Psychological Problems

Women always feel that she is a 'women' and less efficient than men and hesitates to take risks. She has to play a dual role, if she is employed or engaged in work. She has to strive hard to balance her family life with care hence feels better to be housewife. The following Table 4 represent the Psychological problems of rural sample women respondents.

**Table 4 Psychological Problems of Women Micro Entrepreneurs**

Psychological Problems	Mean Score Values	Rank
If you do not have confidence to work	56.7	I
Physically Weak	37.0	IV
Inferiority Complex	47.3	II
Emotional Weakness	15.0	VI
Excessive Tension	34.3	V
Additional Stress for repayment of loan	47.0	III
overall mean score	237.3	Rank

**Source:** Primary data.

This Table envisage that the rank order of psychology Problems viz, do not have confidence to work was ranked first (56.7) followed by ranked Inferiority Complex which got II rank (47.3), Additional Stress for repayment of loan was ranked III (47.0), Physically Weak was rank IV (37), Excessive Tension was ranked V (34.3) and Emotional Weakness was ranked VI (15). The overall mean score was 237.3. The mean score value of each problems indicates the psychology problems of Self-help group of rural women.

### Group Problems

Group is the main indicator to activate the self-help group. Group problems of rural women respondents is represented in the following Table 5.

**Table 5 Group Problems of Women Micro Entrepreneurs**

Group Problems	Mean Score	Rank
Entry Barriers	11.67	V
Operational Barriers	26.33	II
Drop out	20.48	III
Conflict in Group	28.67	I
Irregular Meeting	4.33	VI
Improper records /bills	16.33	IV

**Source:** Primary data.

This Table envisage that the rank order of psychology constraints viz, Conflict group was ranked first (28.67) followed by Operational barriers was got IInd rank (26.33), Dropout was ranked III (20.48), Improper records or bills was ranked IVth (16.33), Entry barriers was ranked Vth (11.67) and Irregular meeting was ranked VIth (4.33). The overall mean score was 107.83. The mean score value of each problem indicate the Group problems of Self-help group of rural women.

**Table 6 Overall Mean Score of the Various Problems**

S.no	Problems	Overall mean Score	Rank
1	Social Problems	109.67	IV
2	Economic Problems	147.81	III
3	Family Problems	169.3	II
4	Psychology Problems	237.3	I
5	Group Problems	107.81	V

**Source:** Primary data.

This table depicts that the overall mean score about problems of rural women empowerment through Self-Help Group. In Psychological problems, the overall mean score is 237.3, was got Ist ranked, the overall mean score of Family Problems is 169.3, was ranked IInd, the overall mean score of Economic Problems is 147.81, was ranked IIIrd, the overall mean score of Social Problems is 109.67, was got ranked IVth and the overall mean score of Group Problem is 107.81 was ranked Vth.

### Suggestions

- The training period is too short to the SHG members. It is a draw back in getting better

training. Therefore, government should conduct frequent training programmes with regard to innovative product techniques, Sales techniques etc., this training should be made compulsory for women entrepreneurs.

- Cooperation among members and proper repayment of loan is the only way to get success in their scheme.
- Marketing of the products has emerged one of the major problems faced by SHGs. Efforts should be made to provide marketing facilities through cooperatives and government outlets.
- The number of entrepreneurs from scheduled caste and most backward communities is very low, awareness is to be created those women by providing some special attention.

### Conclusion

To sum-up, it can be said that sample respondents are facing various problems while functioning with the Self-help groups. Majority of the respondents reported that they faced psychological problem. Most of the respondents reported that they are facing family problem. They first of all wanted that support of family members to women should be there in family life such as taking care of children, help in household work and they also wanted opportunities for more and more exposure to every sphere of life with more free avenues of expression. Some women respondents reported that they are discouraging to go

to banks due to irritating attitude of the bank officials. They also reported that there is inordinate delay in the sanctioning of the loans by the banks. Only a few members in the group know the rules and regulations of the functioning of the SHGs because of most of the respondents faced group problems. The sample women respondents wanted that, training to rural women about income generating enterprises so as to engage them in self-employment. Provisions should be made for maintaining equal status of women with that of men in the society. There should be implementation of various programmes for empowering the women, both economically as well as socially.

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## கவிஞர் வைரமுத்து படைப்புகளில் இலக்கிய நயம்

முனைவர் பா. பனிமலர்

தமிழ்த்துறைத்தலைவர்

இ.மா.கோ.யாதவர் மகளிர் கல்லூரி, மதுரை, தமிழ்நாடு, இந்தியா

### முன்னுரை

புத்திலக்கிய வகைகளுள் ஒன்றான புதுக்கவிதை உருவாக்கத்தில் உணர்வுப் பூர்வமாக தடம் பதித்தவர் வைரமுத்து ஆவார். அவர் தமது கவிதைகளைச் சாமானியர்களும் உணர்ந்து சுவைக்கும் வகையில் எளிய நடை, அழகான உவமை, ரசிக்கத் தூண்டும் வர்ணனை, கவர்கின்ற கற்பனை, உயர்ந்த சிந்தனை என அழகுற படைத்தவர். அவர் தம் கவிதைகளிலும் பாடல்களிலும் இலக்கிய நயம் மிகுந்து காணப்படுகின்றன. அவற்றை ஆராய்வதே இக்கட்டுரையின் நோக்கமாகும்.

### இலக்கிய நயம்

கவிதையில் உணர்ச்சிப் பெருக்கை வெளிப்படுத்த, உவமை, உருவகம், வர்ணனை, கற்பனை, சிலேடை, சந்தம், எதுகை, மோனை, முரண், இயைபு போன்றவை துணை புரிகின்றன. அவற்றைத் தமது கவிதைகளில் அழகுற பயன்படுத்தி, படிப்போரின் உள்ளங்களைப் பாங்குற ஈர்ப்பவர் வைரமுத்து ஆவார். அவர்தம் படைப்புகளில் காணலாகும் இலக்கிய நயம் அளப்பரியது.

### மோனை

இலக்கிய நயத்தில் மோனை நயம் கவிதையை அழகுறச் செய்வதில் முக்கிய இடம் வகிக்கிறது. முதற்சீரின் முதல் எழுத்து ஒன்றிவரத் தொடுப்பது மோனை ஆகும்

**“நங்கை உந்தன் கூந்தலுக்கு  
நட்சத்திரப்பு பறித்தேன்  
நங்கை வந்து சேரவில்லை  
நட்சத்திரம் வாடுதடி”**

என்று மோனையைக் கையாண்டு காதலின் பிரிவுத்துயரை கண் முன்னே கொண்டு வருகின்றார்.

### எதுகை

ஒவ்வொரு அடியிலும் இரண்டாம் எழுத்து ஒன்றி வரத் தொடுப்பது எதுகை ஆகும். எதுகையும்

மோனையும் கவிதையின் இரு கண்கள் போன்றவை ஆகும்.

**“சத்தம் இல்லாத தனிமை கேட்டேன்  
யுத்தம் இல்லாத உலகம் கேட்டேன்”**

என்று எதுகையைக் கையாண்டு, வேகம் கொண்ட இளைஞனின் புரட்சிகரமான வேட்கையை எழுச்சியுடன் வெளிப்படுத்துவது சிறப்பிற்குரியதாகும்.

### உவமை

இரு பொருள்களுக்கு இடையே உள்ள ஒப்புமையை கூறி பொருளை புரிய வைப்பது உவமையாகும்.

**“டெலிபோன் மணிபோல் சிரிப்பவள் இவளா?  
மெல்பான் மலர் போல் மெல்லிய மகளா?”**

என அழகான உவமைகளை கூறி தமது படைப்புகளை மிளிர் வைப்பது வைரமுத்துவின் திறன்மிகு படைப்புத்திறனுக்குச் சான்றாகும்.

### உருவகம்

உவமையாக உள்ள பொருளுக்கும் உவமிக்கப்படும் பொருளுக்கும் வேறுபாடு தோன்றாமல், இரண்டையும் ஒற்றுமைப்படுத்துவது உருவகம் ஆகும்.

**“காலையில் தினமும் கண்விழித்தால்  
நான் கைதொழும் தேவதை அம்மா”**

வைரமுத்து தமது படைப்புகளில் அதிக அளவில் உருவகங்களை பயன்படுத்தி, கற்போரின் மற்றும் கேட்போரின் கவனத்தினை ஈர்த்துள்ளமை சிறப்பிற்குரியதாகும்.

### முரண்

“மொழியினும் பொருளினும் முரணுதல் முறனே” என்று தொல்காப்பியர் முரண் பற்றி விளக்கியுள்ளார். சமூகத்தில் காணப்படும் முரண்பாடுகளைச் சுட்டிக்காட்டி விழிப்புணர்வைத் தூண்டுவதற்கு முரண் பயன்படுகிறது .

**“போதிமரம் போதும்  
புத்தனைப் புதைத்து விடு”**

என்ற வரிகள் மூலம் புத்தனுக்கு ஞானம் கொடுத்த போதிமரம் எங்களுக்கு போதும், ஆனால் ஆசைகளை அறுமின் என்று உரைத்த புத்தர் தேவையில்லை என்ற முரண்பாட்டினை வைரமுத்து வெளிப்படுத்தும் விதம் சிந்தனைக்குரியதாகும்.

### இயைபு

அடிதோறும் ஈற்றெழுத்து ஒன்றி வருவது இயைபுத் தொடையாகும்.

**“பூவை கையில் பூவை அள்ளிக் கொடுத்த பின்னும்  
தொட்டுத் தந்த கையில் மணம் வீசுது இன்னும்”**

எனக் கூறி இயைபுத்தொடையை வைரமுத்து இனிமையாக கூறியுள்ள விதம் போற்றுதலுக்குரியதாகும்.

### சந்தம்

கவிதைக்கு உயிரோட்டம் தருவதே ஓசை நயமாகும். சந்திக்கும் தன்மையே சந்தமாகும். ஒலியானது அலை போல் மீண்டும் சந்திப்பதால் சந்தம் என்று பெயர் வந்தது என தமிழிசை கலைக்களஞ்சியம் தெரிவிக்கின்றது. வைரமுத்து தமது பாடல்களில் மிகுதியாக சந்தம் அமைத்து உருவாக்கியுள்ளார்.

**“உலகினை விற்று நிலவுலோகம்  
வாங்கலாம்  
நிலவினை விற்று வானம் கொஞ்சம்  
வாங்கலாம்  
கவலையை விற்று கவிதை நூல்கள்  
வாங்கலாம்  
கவிதையை விற்று கனவு கொஞ்சம்  
வாங்கலாம்”**

என தனது பாடலில் சந்த நயம் பயின்று வரச் செய்து கவினுற படைத்துள்ளமை அவரது படைப்புத் திறனுக்குச் சான்றாகும். மற்றுமொரு பாடலில்,

**“சித்தத்தினால் கொண்ட பித்தத்தினால்  
காதல் யுத்தத்தினால் எனது ரத்தத்தினால்  
கவிதை எழுதி வைத்தேன் தோழி  
இரு கண்ணிருந்தால் வாசித்து போடி”**

என சந்த நயத்துடன் காதலன் கூற்றாக எழிலுற கவிதை படைத்துள்ளமை பாராட்டிற்குரியதாகும்.

### சிலேடை அணி

கவிஞர்கள் கவிதையின் சுவையினை கூட்டுவதற்கும், படிப்பவர்கள் கவனத்தினை ஈர்ப்பதற்கும் சிலேடை அணியைப் பயன்படுத்துவர். ஒரு வார்த்தையில் இரண்டு பொருள்படும்படி கவிதையை அமைத்து அழகூட்டுவர். ஒருவகைச் சொற்றொடர் பல பொருட் பெற்றி தெரிதர வருவது சிலேடையாகும் என்று தண்டியலங்காரம் சிலேடைக்கு இலக்கணம் கூறுகிறது.

**“இது சாயங்காலமா...**

**மடி சாயங்காலமா...**

எனக் கூறி ஒரு வார்த்தையில் இரண்டு பொருள் தரும்படி அமைத்து படைப்பினை மெருகூட்டுகிறார்.

மற்றுமொரு பாடலில்,

**“விண் - அப்பம் போல் நிலவு வந்து காதல்  
விண்ணப்பம் எழுதுகின்ற இரவு”**

எனும் வரிகளில் விண்ணப்பம் என்ற சொல்லானது பிரிந்து நின்று வானத்தில் தோன்றும் அப்பம் போன்ற வடிவம் உடைய நிலவு என்ற பொருளையும், பிரியாமல் நின்று காதலுக்காக எழுதக்கூடிய மடல் என்ற பொருளையும் தருகின்றது.

### வர்ணனை

இயற்கையாக அமைந்த பொருளைச் சிறப்பித்துக் கூறுவது வர்ணனையாகும். பொதுவாக வர்ணனை என்பது அழகுக்கு அழகு சேர்க்க எழுதப்படுவன வாகும் .

**“பூவுக்குள் ஒளிந்திருக்கும் கனிக்கூட்டம்  
அதிசயம்  
வண்ணத்துப்பூச்சி உடம்பில் ஓவியங்கள்  
அதிசயம்  
துளை செல்லும் காற்று மெல்லிசையாதல்  
அதிசயம்**

**குருநாதர் இல்லாத குயில் பாட்டு அதிசயம்”**

என இயற்கைப் பொருள் மீது வர்ணனையை ஏற்றி அழகுபட எடுத்துரைத்துள்ளமை சிறப்பிற்குரியதாகும்.

### கற்பனை

அனைத்து வகை இலக்கியங்களுக்கும் கற்பனை இன்றியமையாத ஒன்றாகும். கற்பனையின் பயன்பாடு கவிதைகளில் மிக முக்கிய இடத்தை

பெறுகின்றது. வைரமுத்து தனது பாடல்களில் கற்பனை கலந்து வெளிப்படுத்தியுள்ளமை போற்றுதலுக்குரியதாகும்.

என இயற்கையின் தன்மையிலே தனது கற்பனையைக் கலந்து பாடலின் இனிமையைக் கூட்டுவது சிறப்பிற்குரியதாகும்.

முகிலினங்கள் அலைகிறதே  
முகவரிகள் தொலைந்தனவோ  
முகவரிகள் தவறியதால்  
அழுதிடுமோ அது மழையோ  
நீல வானிலே வெள்ளி ஓடைகள் ...  
ஓடுகின்றதே என்ன ஜாடைகள் ...  
விண்வெளியில் விதைத்தது யார்  
நவமணிகள் ...

முடிவுரை  
கவிப்பேரரசு வைரமுத்துவின் கவிதைகளில் காணலாகும் இலக்கிய நயங்களான உவமை, உருவகம், வர்ணனை, கற்பனை, சிலேடை, இயைபு, சந்தம், ஆகியவற்றை ஆய்ந்து நோக்கும்போது தமிழ் கூறும் நல்லுலகத்திற்கு கிடைத்த ஒப்பற்ற படைப்புகள் அவை என்பதில் ஐயமில்லை...

## தமிழ்க் கல்வி கற்றல் கற்பித்தலில் புதுமைகள்

முனைவர் திருமதி வை. நம்பித்தாய்

உதவிப்பேராசிரியர், தமிழ்த்துறை  
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### ஆய்வுச்சுருக்கம்

“தான் பெற்ற இன்பம் பெறுக இவ்வையகம்” என்ற பொதுமைப் பண்பைக் கற்றுத் தருவது தமிழ் இலக்கியம். மூவாயிரம் ஆண்டுகளுக்கும் மேலாகப் பேசப்பட்டும் எழுதப்பட்டும் வரும் மொழி தமிழ். அத்தமிழ் மொழி எண்ணற்ற இலக்கிய வகைமைகளைக் கொண்டு விளங்குகின்றது.

### “இறவாத புகழடைய புதுநூல்கள் தமிழ்மொழியில் இயற்றல் வேண்டும்”

என்ற பாரதியின் கூற்றுக்கேற்ப தமிழ்க்கல்வி கற்றல் கற்பித்தலில் புதுமையை உருவாக்கவும், ஒவ்வொரு காலக்கட்டத்திலும் மக்களின் வாழ்வியலுக்கு கேற்ப நெகிழ்ந்துக் கொடுக்கும் தமிழ்மொழி இலக்கியங்கள் சுவைப்பதற்காக மட்டுமில்லாமல் வாழ்வியலுக்கு வழிக்காட்டும் நிலையில் உலகெங்கும் தோன்றி வருகின்றன என்பதையும்,

### “பழையனகழிதலும்புதியனபுகுதலும் வழுவலகாலவகையினானே”

என்ற பவணந்தியாரின் வாக்கில் இருந்து பழையனவற்றிலும் புதியனவற்றிலும் உள்ள நல்லனவற்றைக் கொள்ளலாம் – அல்லனவற்றைத் தள்ளலாம் என்ற கருத்துப்பலப்படும் வண்ணம் ஒரு முறை வாழும் தலைமுறைக்கு இன்றைய இலட்சியம் கண்டறிந்து நாளைய வெற்றிக்கு வழிவகுக்க, நாம் புதிய வகைப் படைப்புகளையும், உருவாக்கங்களையும் செயற்படுத்த வரலாற்று முறைத்திறனாய்வும், விளக்க முறைத் திறவாய்வும் பயன்படுத்தி தமிழ்க்கல்வி கற்றல் கற்பித்தலில் புதுமையைக் கூறி செயல்படுத்துவதும், தமிழ்க்கல்வி கற்றல் கற்பித்தலில் எவ்வாறு மாற்றங்களை, சாதனைகளை நிகழ்த்துகிறது என்பதையும், தமிழ் இலக்கியங்கள் வழிகற்றல் கற்பித்தல் குறித்தான பதிவுகளானவை எவ்வாறாக அமையப்பெற்றுள்ளது என்பதையும் ஆராய்வதே இவ்வாய்வின் நோக்கமாகும்.

### முன்னுரை

உலகத் தொன்மையும் மென்மையும் வளமையும் செழுமையும் உடைய மொழி தமிழ்மொழி. அனைவரும் கற்றுத் தெளிய வேண்டிய மொழி தமிழ்மொழி. உலக மொழிகள் பலவற்றுக்கும் வேர் சொற்கள் வழங்கிய தாய் மொழியாக இருப்பது தமிழ் மொழி. இத்தகைய தமிழ் மொழி சங்ககாலம் தொட்டு இக்காலம் வரை பல பரிமாணங்களைப் பெற்று செம்மொழி நிலைக்கு உயர்ந்தது. தமிழ் மொழி இன்றும் இனியும் பயன்படும் தமிழ்க் கல்வியாக பழமையில் சீர்மைக் கண்டு புதுமைக்கும் பெருமை சேர்த்து அமரத்துவம் பெறுவதே தமிழ்க்கல்வியின் புதுமையாகும். தமிழ்க் கல்வியே, “அறியாமை இருளை அகற்றி அறிவொளி நல்கும்” என்பதை உணர்ந்த திருவள்ளுவர் கல்வி, கல்லாமை, கேள்வி என்ற மூன்று அதிகாரங்களைப் படைத்தார். தமிழ் படித்தவன் மனிதனாவான் தன்மானம் உடையவனாவான் நம்பிக்கைக்

கொண்டவனாவான். இத்துணை சிறப்புமிக்க தமிழ்க்கல்வி கற்றல் கற்பித்தலை புதிய கோணத்தில் ஆராய்ந்து மாணவர்களிடையே விழிப்புணர்வை ஏற்படுத்துவதே இவ் ஆய்வுக் கட்டுரையின் நோக்கமாகும்.

### தமிழ்க்கல்வி கற்றல் கற்பித்தலின் நோக்கமும் இன்றியமையாமையும்

கல்வியின் நோக்கம் மனிதனைப் பண்பட்ட மனிதனாக்குவதும், அறிவுடையவன் ஆக்குவதும், பகுத்தறிவுடையவன் ஆக்குவதும் ஆகும். மகாத்மா காந்தி, ‘ஒருவரிடம் உள்ள சிறந்த திறமைகளை வெளிப்படுத்துவதே உண்மையான கல்வி’ என்கிறார். ‘தன்னை முழுமையாக அறிந்து கொள்வதே உண்மையான கல்வி என்கிறார் பொள்ளாச்சி நல்லமுத்து கவுண்டர் மகாலிங்கம். “அன்ன யாவினும் புண்ணியம் கோடி ஆங்கோர் ஏழைக்கு எழுத்தறிவித்தல்” என்பது மகாகவி பாரதியின் கூற்று. “எழுத்தறிவித்தவன் இறைவன்

ஆகும்”1 (நீதிநூல் மஞ்சரி ப.73) என்பது அதிவீரராம பாண்டியன் வாக்கு. இவை கல்வி கற்பித்தலின் இன்றியமையாமையை உணர்த்துகின்றன. “பிச்சைப் புகினும் கற்கை நன்றே” என்றும் “அறிவுடை ஒருவனை அரசன் விரும்புவான்” என்றும் அதிவீரராம பாண்டியனும், “அறிவுடையோன் ஆறு அரசும் செல்லும்” என்று புறநானூறும் (183) “வித்தை விரும்பு” என்று ஓளவையாரும், ஓதாமல் ஒருநாளும் இருக்க வேண்டாம்”2 (நீதிநூல் மஞ்சரி ப.114) என்று உலகநாதரும் கற்றலின் இன்றியமையாமையை உணர்த்துகின்றனர். தமிழ்மொழியின் சிறப்பை கல்கி தன் நண்பரிடம், எங்கள் தமிழ் மொழிக்கு ஈடாக இந்தியாவில் வேறு எந்த மொழியும் சொல்ல முடியாது. ஆதிசிவன் பெற்ற மொழி அகத்தியன் அணிசெய்த மொழி மூன்றுகுலத் தமிழ் மன்னர் வளர்த்தமொழி. “கள்ளையும் தீயையுஞ் சேர்த்து - புயற் காற்றையும் வான வெளியையும் சேர்த்து தெள்ளு தமிழ்ப்புல வேர்கள் - பல தீஞ்சுவைக் காவியம் செய்து கொடுத்த”3 (ப.85 கல்கி வளர்த்த தமிழ்) மொழி எங்கள் மொழி. வள்ளுவரையும் கம்பனையும் போன்ற கவிகளை வேறெந்த இந்திய மொழியிலாவது காட்டுங்கள் பார்க்கலாம் என்கிறார். மொழி இன்றேல் மக்கள் சமூகமாக இயங்க முடியாது. அன்றாட வாழ்க்கையில் ஒருவரோடு ஒருவர் உறவாடுவதற்கு மொழியே சிறந்த கருவியாகும். மக்களின் பொது வாழ்க்கைக்கு இன்றியமையாத தாய் மொழியைப் பயன்பெறும் முறையில் கற்பிக்கும் போது தெளிவான பேச்சு, தெளிவான சிந்தனை, தெளிவான எழுத்து என அமைதல் நலம் பயக்கும். மேலும் தாய் மொழியில் படிக்கும் போது மொழித்திறன் பற்றிய அறிவு, இன்ப நுகர்ச்சி, வாழ்க்கை பற்றியும் உலகைப் பற்றியும் ஏற்படும் புதிய விளக்கம் ஆகியவை மாணவர்களின் மனதில் ஒரு தூண்டுணர்வை ஏற்படுத்தும். நாம் கற்பிக்கும் பாடத்தை உற்சாகத்துடன் மாணவர்களின் வயது நிலைகளுக்கு ஏற்றவாறு அவர்களின் பட்டறிவிற்கு எட்டிய பொருட்களை வாழ்க்கையுடன் ஒட்டிய செய்திகளாக அமைத்து கற்பித்தல் சிறப்பு என்பதை இராமலிங்க வள்ளல், “பருவமறிந் ததற்கியைந்த கலை பயிற்றி மகிழ்வித் தாரால்”4 (தமிழ் பயிற்றும் முறை ப. 536) என்று கூறியதை சிந்தித்து

நினைவுக் கூர்வது இன்றியமையாதது. இலக்கியத்தை பயில்வதும் பயிற்றிவிட்பதும் கலை உணர்வோடு கைகொள்ளுதற்கு உரிய களங்கள் ஆகும். இவ்விலக்கியங்களை, பருகுவன அன்ன ஆர்வத்தோடு வந்தார்க்கு, இருவன இருந்து, சொல்லென சொல்லி, செவ்வாயாக, நெஞ்சு களனாகக் கொண்டு தமிழ்க் கற்பிக்கப்பட, தமிழ்க் கற்கும் மாணவர்களின் எண்ணங்களை தூண்டிச் செயல்பட வைக்கும். “உங்கள் பையனுக்கு நடக்க கற்றுக் கொடுங்கள் ஓடுவதற்குத் தானாகவே கற்றுக் கொள்வான்”5 (கல்விச் செல்வம் ப. 51) என்பார் எம்ரசன். இக்காலத்தின் அறிவுத்துறைக்கு ஏற்றவாறு சொற்செல்வமும், நடைப்பொருத்தமும் உடைய தமிழ் மொழியை வளர்க்க, புது நடையையும் புதிய கலையாக்கச் சொற்களையும் மேற்கொள்ள, “சென்றிடுவீர் எட்டுத்திக்கும் - கலைச் செல்வங்கள் யாவும் கொணர்ந்திங்குச் சேர்ப்பீர்”6 (பாரதியார் கவிதைகள் தமிழ்த்தாய் - 11 தமிழ் பயிற்று முறை ப. 535) என்ற பாரதியின் நோக்கத்தை, குறிக் கோளை பின்பற்றி சென்றால், வெளிநாட்டுச் செல்வம் வீட்டுச் செல்வத்தை விளங்கச் செய்யும். தமிழ் மொழி தனது நீண்ட வரலாற்றில் வேற்று மொழி ஆதிக்கத்துக்குட்பட்ட போதெல்லாம், தனது தனித்தன்மை மாறாமல் தன்னைத்தானே புதுப்பித்து இளமை உயிர்ப்போடு விளங்குகிறது. மாறிவரும் சூழ்நிலைக்கும் தேவைக்கும் ஏற்ப, புதிய கருத்துக்கள், கண்டுபிடிப்புகள் ஆகியவற்றை உள்வாங்கிக் கொள்ளும் நெகிழ்வுத் தன்மை உடையது தமிழ். ஒரு மொழியின் உயிர்ப்பு, பேச்சு வழக்கையே உறைவிடமாகக் கொண்டுள்ளது. அன்றாடம் இல்லம், அங்காடி, சமூக சந்திப்புகளில் எவ்வாறு மக்கள் தம் மொழியைப் பயன்படுத்துகின்றனர் என்பதைக் கொண்டே, அதன் நிலைத்த தன்மையை உணர முடியும். ஆதலால் தமிழ்க் கல்வி கற்பிக்கும் முறையில் கருத்தை அறிதல், இலக்கிய இன்பம் நுகர்தல், கற்பனை, படைப் பாற்றலை வளர்த்தல், மொழித்திறன் அடைதல் ஆகியவற்றை பெறுவதற்கு வேண்டிய பயிற்சி முறைகளை கையாளகற்றுக் கொடுத்தலே தமிழ்க்கல்வி கற்றல் கற்பித்தல் புதுமையின் சிறந்த நோக்கங்கள் ஆகும்.



காலந்தோறும் கற்றல் கற்பித்தலில் மாற்றங்கள் மனிதன் தோன்றியக் காலத்து சைகை, ஒலிக் குறிப்புகளால் தொடங்கிய கருத்து பரிமாற்றம் நாளடைவில் இணையவழியில் நேரடியாக காணொளி காட்சி மூலம் தகவல் பரிமாற்றம் நடக்கும் நிலைக்கு மாறியுள்ள சூழ்நிலையில் தமிழ்மொழியைக் கற்றல் கற்பித்தலுக்குப் பயன்படும் பல இணையதளங்கள் உள்ளன. ஒரு மனிதனை இருளில் இருந்து வெளிச்சத்திற்குக் கொண்டு வருவது கல்வியே ஆகும். அக்கல்வி தாய் மொழியில் கற்பிக்கப்பட வேண்டும். வாழ்வே தாய் மொழியாக உள்ளது என்பதை உணர்ந்து, “பயிற்றிப் பலகல்வி தந்து - இந்தப் பாரை உயர்த்திட வேண்டும்”<sup>7</sup> (பாரதியார் கவிதைகள் - முரசு-30 ப.210) என்ற பாரதியாரின் கூற்றுக்கிணங்க பிற கலைகளையும் தமிழில் கற்றுத் தமிழை வளர்க்க வேண்டும். தமிழ்க் கல்வியில் காலத்திற்கேற்ற புதிய துறைகள் இடம் பெற வேண்டுவது அடிப்படையாகும். மனிதனை உயர்த்துவது கல்வி ஒன்றுதான். இதனை உணர்ந்த வள்ளுவரும், ஓளவையாரும், “எண்என்ப ஏனை எழுத்தென்ப இவ்விரண்டும் கண்என்ப வாழும் உயிர்க்கு”<sup>8</sup> (குறள்-392 ப.262)” எண்ணும் எழுத்தும் கண்ணத் தகும்”<sup>9</sup> (கொன்றை வேந்தன் - 7 மூத்தோர் மொழி ப.18) எனக் கல்வியின் மேன்மையை எடுத்து உரைக்கின்றனர். இந்த கல்வியைக் கற்பிக்கும் முறையில் சில மாற்றங்கள் தேவைப்படுகின்றன. ஒரு காலத்தில் வாசகரால் உவந்து ஏற்றுக் கொள்ளப் பட்ட நூல், பிறிதொரு காலத்தில் மதிப்பிழந்து புறக்கணிக்கப்படுவதைக் காணலாம். இதற்கு எதிரொலி, ஒரு காலத்திலே படிப்பவரால் அசட்டை செய்யப்பட்ட நூல் மற்றொருக் காலத்திலே மர்சீமையுடையதாய் போற்றப்படுவதையும் காணலாம். சமுதாயத்தில் கல்வி என்பது சாதாரண கல்வி அறிவும், உலக அனுபவமும் உள்ளவர்கள் இலக்கிய ஆக்கத்தில் ஈடுபடவும் அதனை சுவைக்கவும் இன்று வாய்ப்புகள் அதிகம் உள்ளன. இதனை ஒரு முறைப்படுத்தி கற்றல் கற்பித்தலில் ஒரு பரிணாம வளர்ச்சியை ஏற்படுத்தி, ஓரிரண்டு வருடம் நூல் பழக்கம் உள்ள தமிழ் மக்கள் எல்லோரும் நன்கு பொருள் விளங்கும்படியும், காவியத்துக்குள்ள நயங்களை குறைவுபடாமலும் கற்பித்தலுக்கு வழிவகை செய்ய வேண்டும். ஆங்கிலத்தின் வழியாக கல்விக் கற்றல் என்று, உலகத்தின்

பெருமொழிகள் பலவற்றின் வழியாகத் தமிழைப் படிப்பதற்குரிய சூழல்கள் உருவாகியுள்ளன. இதற்காக முறையான பாடத்திட்டம் அமைத்து பாடங்களை இணையத்திலே படிப்பதன் வழியாகத் தமிழைக் கற்றுக் கொள்ளமுடியும். தமிழ் இணையப் பல்கலைக்கழகம் கற்றலுக்கு மிகச்சிறந்த வழிக்காட்டியாகத் திகழ்கிறது. இது போல உலகின் பல நாடுகளில் செயல்படும் தமிழ்க் கல்விக் கழகங்கள், இருக்கைகள் என்று இணையம் மூலமாகத் தமிழ்க்கல்வியை முன்னெடுத்து வருகின்றன. இது தமிழ்க்கல்வியைக் கற்றல் கற்பித்தலுக்கு மிகப்பெரிய உருமாற்றத்தை ஏற்படுத்தியிருக்கிறது. தமிழ் நூல்களின் சுவையைச் சுவடிகளிலும் தாள்களிலும் படித்த நாம், வாசிப்பை மேலும் தூண்டும் மாற்றுக் களமாக இணைய நூலகம் அமைகின்றது. அந்நூல்கள் தமிழ் நூல்களை இசையோடு கேட்டிடத் துணைசெய்கின்றன. மதுரைத்திட்டம் ([www.projectmadurai.org](http://www.projectmadurai.org)), தமிழ் இணையம் ([www.tamilvu.org](http://www.tamilvu.org)), [www.tamilauthors.com](http://www.tamilauthors.com), [sangamtamizh.blogspot.com](http://sangamtamizh.blogspot.com), [www.cennai.library.org](http://www.cennai.library.org), போன்ற தளங்கள் இணைய நூலகம் தழைக்க உதவும் தளங்களாகும்.

### தமிழ்க்கல்வி கற்றல் கற்பித்தலில் அணுகுமுறைகள்

நல்ல தரமான நூல்களைக் கொண்ட ஒரு சிறிய நூலகம் ஒவ்வொருவர் வீட்டிலும் இருக்க வேண்டும். வீட்டில் நூல் நிலையம் இருந்தால், அங்கே அறிஞர் பெருமக்கள் நமக்காகக் காத்துக் கொண்டிருப்பார்கள். வால்ட் விட்மன் என்ற அமெரிக்கக் கவிஞன், “தோழனே! இது வெறும் புத்தகமன்று இதைத் தொடுவோன் ஒரு மனிதனையே தொடுகிறான்”<sup>10</sup> (ப.38 விஜயா பொதுக் கட்டுரைகள்) என்கிறார். “புனிதமுற்று மக்கள் புது வாழ்வு வேண்டில் புத்தகசாலைவேண்டும் நாட்டில் யாண்டும்” (பாரதிதாசன் கவிதைகள் முதற்பகுதி) என்கிறார் பாரதிதாசன். நூலகத்தினால் மாணவர்களின் மொழியறிவினையும் பொருளறிவினையும் வளர்த்தல் வேண்டும். அவ்வவ் பொழுது புதியனவாக வெளிவரும் வார இதழ்கள், பிறை இதழ்கள், திங்கள் இதழ்கள், ஆண்டிதழ்கள், வேறு சிறப்பிதழ்கள் ஆகியனவற்றையும், தாய் மொழியில் பல்வேறு துறைகளில் வெளிவரும் நூல்களையும் மாணாக்கர்க்கு கிட்டும்படி செய்து

இவற்றை வளர்க்கலாம். நூல் நூல்கள், பருவ வெளியீடுகள், ஆராய்ச்சி இதழ்கள், சிறு கதைகள், புதினங்கள், மதிப்புரைகள் ஆகியனவற்றை படிக்க வைத்தல் வேண்டும் என்று ந.சுப்புரெட்டியார் வலியுறுத்துகின்றார். “கொள்வோன் கொள்வகை அறிந்து அவன் உளங்கொளக் கோட்டம்இல் மனத்தின் நூல் கொடுத்தல் என்ப”<sup>11</sup>(நன்னூல் - எழுத்து ப. 26) என்று உளவியலறிவு நன்கு வாய்க்கப் பெற்ற ஆசிரியர்கள் தாம் மாணாக்கர்களை ஒருமுகப்படுத்தி கற்றல் ஒன்றையே நாடுமாறு செய்தல் இயலும் என்கிறார் நன்னூலார். “வானோலி, தொலைக்காட்சி கல்வியைப் பரப்பும் மிக அருமையான சாதனமாகும். பிழையின்றி எழுதப் பழகுவதற்குச் சொல்வதெழுதல் என்னும் ‘டிக்டேஷன்’ பயிற்சி அளித்தல் சிறப்பு”<sup>12</sup>(ப.83 19ஆம் நூற்றாண்டுத் தமிழ் இலக்கியம்) என்கிறார் மயிலை சீனிவேங்கடசாமி. இறையன்பு அவர்கள், மாணவர்கள் பங்கேற்கும் கல்வியைக் கொண்டுவர விருப்பம் தெரிவிக்கின்றார். “சில பாடங்களை மாணவர்களே முறைவாரியாகச் செல்லும் பாடம் பகிர்ந்து கொள்ளும்படியும், கருத்தரங்குகள், ஆய்வரங்குகள், பயிலரங்குகள் போன்றவற்றை அமைக்க வேண்டும் என்றும், ஒவ்வொரு பாடத்திலும் மாணவர்கள் ஆண்டு முடிவில் ஒரு பாடத்தைப் பற்றி ஆய்வுக் கட்டுரை தயார் செய்து விரிவுரை செய்ய வேண்டும்”<sup>13</sup>(ப.38 ஐ.ஏ.எஸ் தேர்வும் அணுகுமுறையும்) என்றும் பரிந்து உரைக்கின்றார். இம்முறை மாணவரின் விரிவுரை செய்யும் ஆற்றலையும், கருத்துகளைப் பகிர்ந்து கொள்ளும் ஆற்றலையும் பெருக்கும். மேலும், மாணவரின் அவை நடுக்கத்தைக் களைய தினம் இரண்டு மாணவர்கள் காலை வழிபாட்டுக் கூட்டத்தில் பேசுமாறு ஏற்பாடு செய்ய வேண்டும் என்று மேடை நடுக்கத்தை நீக்குவதற்கான ஆலோசனையும் தருகின்றார். கற்பித்தல் முறையை, “கட்பாரையைப் போல் கல்வியைக் கடினமாக பிரயோகப்படுத்தாமல் பூக்களுக்கு வலிக்காமல் தேனிக்கள் தேன் எடுக்கின்ற நேரத்தியுடனும், பூமிக்கு வலிக்காமல் விதைகள் வேர் விடுகின்ற நயத்துடனும் மாணவர்களுக்குப் போதிக்கப்பட்டால் அதை எப்போதும் நேசிப்பார்கள் என்று வலியுறுத்துகின்றார்”<sup>14</sup>(ப.55 இறையன்பு படைப்புலகம் பாகம்-2) இறையன்பு.

### வாய்மொழி கற்றல் கற்பித்தல்

பாடத்திட்டங்களில் வாய்மொழி கற்பித்தலை மிக உன்னத நிலையாகக் கருதலாம். ஏனெனில் தமிழ் மொழியை வாசிக்க வாசிக்கத்தான் அதன் சுவை நன்கு உணர முடியும். அது மட்டும் அல்லாமல் வாய்மொழியைக் கற்றுக் கொள்ளும் போது மாணவர்கள் முழு ஈடுபாடுடன் மொழியைச் சிறப்பாக கையாள கற்றுக் கொள்கிறார்கள். வாய்மொழிப் பயிற்சியில் தனிநபர் உரையாடல், கலந்துரையாடல், ஆட்டப் பாடல்கள், கதை சொல்லுதல், நடிப்பு என்று குறிக்கப்படும் போது கற்றல் அனுபவமும் பெருகும். இதனால் மாணவர்கள் தனியாகத் தங்களது திறனை வெளிப்படுத்த முடியும். மேலும் நம் பாடத்திட்டத்தை ஒட்டிய ஏதேனும் ஒரு பகுதியை எடுத்து தலைப்பாகக் கொடுத்து குறிப்பிட்ட நேரத்திற்குள் உரையாடல் நடப்பதற்கு மாணவனைச் சிந்திக்கச் செய்தால், மாணவர்கள் தங்களது உரையை வடிவமைப்பார்கள்.

“சித்திரமும் கைப்பழக்கம் செந்தமிழும் நாப்பழக்கம்”<sup>15</sup> “பார்க்காத பயிர் பாழ் படிக்காத பாடம் பாழ்”<sup>16</sup> (இலக்கியம் சிந்தும் விளையாட்டு இன்பம் ப.107) என்ற பழமொழிகளுக்கேற்ப இது போன்ற இடைவிடாத பயிற்சிகளால் நல்ல பேச்சுத் திறன் பெற முடியும். கற்றலும் அதே நேரத்தில் நிகழும். இந்த முறையினால் மாணவர்கள் தகவல்களைச் சேகரித்து தங்களுடைய பேச்சாற்றலை ஆர்வத்துடன் வளர்த்துக்கொண்டு பயனும் திறனும் பெறுவார்கள். குழந்தைகள் வாய்மொழி கற்பித்தலில் வாய்மொழியே முக்கியமானதாகும். பேசுவது படிப்பதைவிடவும், எழுதுவதைவிடவும் விரைவாகவும் எளிதாகவும் கைவரக்கூடியது. நல்ல உச்சரிப்பு, திருத்தமான பேச்சு ஆகியவற்றை வாய்மொழி பயிற்சியால் உண்டாக்கலாம். ஆதலால், குழந்தை முதல் பெரியவர் வரை மனப்பாடமாக சொல்வதற்கு வாய்மொழி பயிற்சி அவசியமாகிறது. சான்றாக,

“மாம்பழமாம் மாம்பழம்  
மல்கோவா மாம்பழம்  
சேலத்து மாம்பழம்  
தித்திக்கும் மாம்பழம்  
உங்களுக்கும் வேண்டுமா  
இங்கே ஓடி வாருங்கள்  
பங்கு போட்டுத் தின்னலாம்”

“அம்மா அங்கே வா! வா!  
ஆசை முத்தம் தா! தா!  
இலையில் சோறு போட்டு

.....

.....அ.தே எனக்கு வழியாம்”

“ஓரிரெண்டு ரெண்டு  
ஈரிரெண்டு நாலு  
மூவி ரெண்டு ஆறு  
நாலிரெண்டு எட்டு  
ஐரெண்டு பத்து”

“ஒருகுடம் தண்ணி ஊத்தி ஒருபூ பூத்ததாம்  
இரண்டுகுடம் தண்ணி ஊத்தி இரண்டுபூ  
பூத்ததாம்”

இப்படி “பாட்டு” என்றாலும் “வாய்பாடு”  
என்றாலும் ‘விளையாட்டு’ என்றாலும் நினைவாற்றல்  
பெருக வாய்மொழி பயிற்சி முக்கிய இடத்தை  
வகிக்கின்றது. வாய்மொழி பயிற்சியால் கற்றல்  
கற்பித்தல் இலகுவாக நடைபெறுகின்றது.

### தமிழ்க்கல்வி கற்றல் கற்பித்தலில் புதுமைகள்

மாணவர்களுக்கு கணிப்பொறி வழியே  
பாடங்களைக் கற்பிக்கும்போது தகவல்  
தொழில்நுட்பம் தொடர்பான திறன்களில் பயிற்சி  
அளித்து திறன்களை வளர்த்தல், களிப்பூட்டும்  
கற்றல் நுட்பம் வாயிலாக கற்பித்தல். அதாவது,  
ஆடுதல், பாடுதல், விளையாடுதல், நடித்தல்,  
வரைதல், செய்தல் போன்ற செயல்களில் தங்களை  
மறந்து ஈடுபடும் மாணவர்கள் பாலுக்குள்  
கற்கண்டு கரைந்து காணாமல் போனது போல,  
அச்செயல்களில் கரைந்து கலந்து போய்  
விடுகிறார்கள். இவ்வாறு ஆடி பாடி விளையாடும்  
மாணவர்கள் தாங்கள் புதிதாக ஒன்றைக்  
கற்கிறோம் என்று அறியாமலேயே கற்கின்றனர்.  
கற்பதிலுள்ள சிரமங்கள் தெரியாமலேயே கற்று  
விடுகின்றனர். இதனால், மாணவர்களுக்குக் கற்றல்  
மகிழ்ச்சியாகவும், இனிமையாகவும் திகழ்கிறது.  
பாரதியாரும் குழைந்தைகளின் உள்ளார்ந்த  
ஆற்றலை வெளிப்படுத்த விளையாட்டும், படிப்பும்  
இருகண்கள் என்பதை, “ஓடிவிளையாடு பாப்பா  
நீ ஓய்ந்திருக்கலாகாது பாப்பா காலை  
முழுவதும் படிப்பு” என்று குறிப்பிடுகிறார்.  
புதுமையான கற்பித்தல் நுட்பங்களைக்  
கையாளும் போது மாணவர்களின் மனம்

கல்வியில் அதிகமான ஈடுபாடும், ஆர்வமும் கொண்டு  
திகழ்வார்கள். “சுடர் விளக்காயினும் தூண்டுகோல்  
வேண்டும்” (Teachvision -2023 ப.321) என்பது  
போல எவருக்கும் ஒரு தூண்டுதல் ஏற்படும்போது  
புதிய படைப்பு மற்றும் திறன் மேம்படும்.  
தகவல்களைத் திரட்டல், தலைப்பைக் கொடுத்து  
எழுத வைத்தல், குறிப்புகள் கொடுத்தல், முடிவு  
கூறச் செய்தல், கவிதை எழுத வைத்தல், கதை  
பாடல்கள் என பல வகையில் மாணவர்களின்  
மனத்தில் மாற்றத்தை ஏற்படுத்தலாம். புதிய  
தேவைகள், புதிய சூழல்கள், மாணவர்களின்  
செயலில் புதுமை, பாடத்திட்டத்தில் புதுமை என்று  
புதியகற்பித்தல் நுட்பங்களைப் பயன்படுத்திக்  
கற்பித்து, குறைவான நேரத்தில் மாணவர்களைக்  
கூடுதலாகக் கற்க வைக்க தமிழ்க்கல்வியில்  
புதிய மாற்றங்கள் காலந்தோறும் தோன்றி கற்றல்  
கற்பித்தல் நடந்துக் கொண்டே இருக்கின்றன.

### முடிவுரை

வாழ்க்கையின் அனைத்துக் கலைகளையும்  
பழந்தமிழர் இலக்கியங்களில் வடித்தெடுத்தள்ளனர்.  
முத்தமிழாக விளங்கும் இயல், இசை, நாடகம்  
இன்று அறிவியல் தமிழாகவும், கணினி இணைய  
- வலைதளங்களிலும், ஊடகங்களிலும் இடம்  
பெற்ற மொழியாகவும் திகழ்கின்றது. “யாதும்  
ஊரே யாவரும் கேளிர் தீதும் நன்றும் பிறந்தர வாரா”  
என்ற கணியன் பூங்குன்றனார் வார்த்தைகளைக்  
கணினித்தமிழ் சாத்தியமாக்கி இருக்கிறது.  
இதனால், தமிழ்க்கல்வி கற்றல் கற்பித்தல் புது  
பொலிவுடன் மாணவர்களுக்கு எந்த அறிவுரையும்  
வழங்காமல் தன்மனப்பிக்கை ஏற்படுத்தி ஒவ்வொருவர்  
சிந்தையிலும், செயலிலும் பரிணாம வளர்ச்சியை  
வாழ்வின் எல்லைவரை தினந்தோறும் நடைபெற  
வழிவகுக்கும். ஒழுக்கம், நேர்மை, எளிமை,  
தன்னடக்கம், தெளிந்த சிந்தனை, சுயகட்டுப்பாடு,  
சுய மேம்பாடு, சேவை மனப்பான்மை போன்ற  
உயரிய பண்புகளைத் தமிழ்க்கல்வி புதியத்  
தளத்துடன் புதுமைகளுடன் கற்றல் கற்பித்தல்  
மூலம் வளர்த்து, முக்கியக் குறிகோள்களையும்,  
மதிப்பீடுகளையும் வழங்கும் என்பதில் சிறிதளவும்  
ஐயமில்லை.

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1. நீதிநூல் மஞ்சரி ப.73
2. நீதிநூல் மஞ்சரி ப.114
3. கல்கி வளர்த்த தமிழ் ப.85

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5. கல்விச் செல்வம் ப.51
6. பாரதியார் கவிதைகள் தமிழ்த்தாய் - 11 தமிழ் பயிற்று முறை ப. 535
7. பாரதியார் கவிதைகள் - முரசு - 30 ப.210
8. குறள்-392 ப.262
9. கொன்றை வேந்தன் - 7 மூத்தோர் மொழி ப.18
10. விஜயா பொதுக் கட்டுரைகள் ப.38
11. நன்னூல் - எழுத்து ப. 26
12. 19ஆம் நூற்றாண்டுத் தமிழ் இலக்கியம் ப.83
13. ஐ.ஏ.எஸ் தேர்வும் அணுகுமுறையும் ப.38
14. இறையன்பு படைப்புலகம் பாகம்-2 ப.55
15. இலக்கியம் சிந்தும் விளையாட்டு இன்பம் ப.107
16. இலக்கியம் சிந்தும் விளையாட்டு இன்பம் ப.107

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## நற்றிணைப் பாடல்களில் இடம் பெறும் குறிஞ்சி மற்றும் நெய்தல் திணை களவுநெறியில் தோழியின் கூற்றுக்கள் - ஒப்பீடு

தி. அனுசூயா

தமிழ்த்துறை விரிவுரையாளர்

இ.மா.கோ.யாதவர் மகளிர் கல்லூரி, மதுரை, தமிழ்நாடு, இந்தியா

### ஆய்வுச் சுருக்கம்

அகத்திணைச் செய்யுள் மனித வாழ்வில் ஏற்படும் காதல் நிகழ்ச்சிகளைப் பாடுபொருளாகக் கொண்டது. அகப் பாடல்களில் இடம்பெறும் மாந்தர்கள் யாவரும் தலைவன் தலைவியின் காதல் நிகழ்வோடு தொடர்புடையவராக இருக்கின்றனர். திணைச் செய்யுளில் ஒப்பிட முடியாததும் இணையற்றதுமான பாத்திரம் தோழியாகும். காதலைப் பெற்றோருக்கு எடுத்துரைத்தல், பேச்சு துணையாதல், திட்டமிடுதல் என்ற மூன்று நிலைக்கும் உரியவள் தோழி. அவள் கூர்மையான அறிவு நுட்பம் கொண்டவள். சமூக உறவையும் பண்பாட்டையும் நன்கு அறிந்து செயல்படக் கூடியவள். தலைமக்களின் காதலை பிறர் அறியாது வரையை நோக்கி கொண்டு செலுத்தும் அறிவுணர்ச்சி உடையவள். இத்தகைய தோழிக் கூற்றின் வழி அன்பின் ஐந்திணைகளில் குறிஞ்சி மற்றும் நெய்தல் நிலத்தில் திணையின் அடிப்படையில் அங்கு நிகழும் தலைமக்களின் களவுக் காதலை இக் கட்டுரை எடுத்தியம்புகிறது.

### தோழி அறிமுகம்

தோழி தானே செவிலி மகளே (1069)1 என்ற தொல்காப்பிய நூற்பாவின் படி செவிலித்தாயின் மகளாகக் கருதப்படும் தோழி உலகியலறிவு மிக்கவளாகக் திகழ்கின்றாள். தலைவன் தலைவி காதல் வாழ்க்கையில் பெரும் பங்கு எடுத்துத் துணை புரிபவள் தோழி. தலைவியினுடைய செயல்கள் எல்லாவற்றையும் இவள் அறிவாள். தன்னலம் சிறிதும் இல்லாமல் தலைவன் தலைவியின் நலத்தை மட்டுமே கருத்தில் கொண்டு சாமர்த்தியமாக செயலாற்றும் திறனுடையவள். தலைவன் - தலைவியின் களவொழுக்கத்தினை அதிகமாக நீட்டிக்க விரும்ப மாட்டாள். பகற்குறி இரவுக்குறிகளில் அவர்கள் அடிக்கடி சந்திக்கும் வாய்ப்புகளை ஏற்படுத்தாமல் ஊரார் அலர் பேசும் முன்னர் களவை கற்பாக்க முற்படுவாள். அதற்கு வேண்டிய திட்டங்களை வகுப்பதில் அறிவுத் திறம் மிக்கவளாகக் செயல்படுவாள்.

### குறிஞ்சித் திணையில் தோழி

குறிஞ்சித் திணையை களவுத் திணையெனவே குறிப்பிடலாம். குறிஞ்சியில் மட்டுமே காதலின் தொடக்க நிலைகளான இயற்கை புணர்ச்சி, இடந்தலைப்பாடு, பாங்கர் கூட்டம், தோழியிற் கூட்டம் என முறையே தலைமக்களின் காதல் நிலை படிப்படியாக வளர்வதைக் காண முடிகிறது. இவற்றுள் முதல் மூன்று கூறுகளை எடுத்துரைக்கும் பாடல்களை விட தோழியிற்

கூட்டப் பாடல்களையே புலவர்கள் அதிகம் பாடியுள்ளனர். குறிஞ்சியில் திணைப் புனங்காக்க தோழியோடு தலைவி செல்வது வழக்கமாக கூறப்படுகிறது. இவ்வாறு செல்லும் போதே பெரும்பாலும் தலைவன் தலைவியின் களவு நடைபெறுவதை குறிஞ்சித் திணைப் பாடல்கள் எடுத்துரைக்கின்றன.

திணைப்புணம் காத்தல் வரைவு கடாவுதல், இற்செறிப்பு, இரவுக்குறி, குறிகேட்டல், அறத்தொடு நிறறல், முதலியன குறிஞ்சித் திணைக்குச் சிறப்புச் சேர்க்கும் நிகழ்வுகள் ஆகும். இத் துறைகள் அனைத்தும் தோழியின் வாயிலாகவே நடைபெறுகின்றன. தோழி தன் இனிய சொற்களாலும் சில நேரங்களில் அச்சுறுத்தும் சொற்களாலு எப்போதும் தலைவனிடத்து தலைவியை விரைந்து மணந்த கொள்ள வற்புறுத்துவாள்.

### நெய்தல் திணையில் தோழி

குறிஞ்சியைப் போலவே நெய்தலும் மறைவான காதலைக் குறிக்கின்றது. நெய்தல் திணையைப் பொறுத்தவரை மகளிர் கடற்கரையின் அருகே உள்ள மணற்கானலில் நெய்தல் மலர்களை பறிக்கவும் உட்பிட்ட மீனை உலர்த்தவும் காயும் மீன்களை பறவைகள் கொத்திப் போகாதவாறு காப்பதற்கும் வெளியில் செல்வர். இந் நிகழ்வுகள் மூலம் தலைவி தலைவனை சந்திக்கும் வாய்ப்பினைப் பெறுகிறாள்.

நெய்தல் திணையின் தோழி தலைவன் தலைவியின் காதற்களவில் துணை செய்கின்றாள். களவை நீட்டிக்காமல் இருக்கவும் காதலரின் திருமணத்தை விரைவு படுத்தவும் செய்கிறாள். அவள் தலைவன் வரும் வழியில் உள்ள துன்பங்களை எடுத்துரைப்பதன் வழியாகத் தலைவியை விரைந்து அவன் மணந்து கொள்ள வற்புறுத்துகின்றாள். தலைவியின் இற்செறிப்பையும் ஊர் மக்களின் அலர் குறித்தும் சிறைப்புறமாக உள்ள தலைவன் அறியும் வண்ணம் கூறுகின்றாள். தலைவன் தலைவியை விரைவில் மணப்பான் எனத் தலைவியைத் தேற்றுகிறாள். தலைவி விரும்பிய காதலனை மணக்க உதவுவளாக நெய்தல் நிலத் தோழி இருக்கிறாள்.

### குறி நீட ஆற்றாளாகிய தலைமகளைத் தோழி வற்புறுத்தியது

தலைவன் தலைவியிடம் கூறிய இடத்திற்கு வரத் தாமதாகும் நிலையில் தலைவியின் மனம் வேதனைப் படுகிறது. அதனைக் கண்ட தோழி தலைவன் வருவதற்கான சூழல் தென்படுவதாகக் கூறி தலைவியைத் தேற்றுகிறாள்.

**“கவர்பரி நெடுந்தேர் மணியும் இசைக்கும்  
பெயர்பட இயங்கிய இளையரும் ஒலிப்பர்  
கடல்ஆடு வியல்இடைப் பேர்அணிப்  
பொலிந்த  
திதலை அல்குல் நலம்பா ராட்டிய  
வருமே தோழி! வார்மணற் சேர்ப்பன்....”2  
நற்-307**

தோழி! நம்மைக் குறிப்பிட்ட இடத்திற்கு வருமாறு கூறிய தலைவன் வரவில்லை எனக் கவலை கொள்ளாதே, அவன் வந்து கொண்டிருக்கும் தேரின் மணியோசை நீ கேட்கவில்லையா. அவ்வோசையைக் கேட்கும் இளைஞர்கள் ஆரவாரம் செய்கின்றனர். தலைவன் கட்டாயம் குறிப்பிட்ட இடத்திற்கு வந்து சேருவான். அந்தச் சோலையில் தலைவன் வந்தவுடன் அவன் கண்ணில் படாமல் மறைந்து நிற்போம். அவனைக் காணாது நாம் பட்ட துன்பத்தை அவனும் சிறிது நேரம் துன்பப்படுமாறு அதோ தோன்றுகிற புன்னை மரத்தின் பின்னால் ஒளிந்து கொள்வோம்.

தலைவன் குறிப்பிட்ட நேரத்திற்குள் வராததால் தன் மேல் காதல் இல்லையோ என தலைவி எண்ணுகிறாள். இதையறிந்த தோழி தலைவன் வரும் தேரின் ஓசை கேட்கிறது எனவே தலைவியை அச்சம் தவிர்க்க

வேண்டுகிறாள். மேலும் தலைவன் வரும் போது தலைவியை ஒளிந்து கொள்ளச் செய்கிறாள். அவன் தலைவியைக் காணாது தவிக்கும் போது வெளிப்படும் காதலைக் கொண்டு தலைவன் தலைவி மேல் கொண்ட அன்பை நிரூபிக்கின்றாள். தலைவியின் மன எண்ணங்களை புரிந்து கொண்டு செயல்படும் திறனை இப் பாடல் வெளிப்படுத்துகிறது.

### வரைவு கடாதல்

‘தாங்கருஞ் சிறப்பின் தோழி’ என்று கூறுவர் தொல்காப்பியர். இத்தகைய தோழி, தலைவன் தலைவியின் களவொழுக்கத்தினை அதிகமாக நீட்டிக்க விரும்ப மாட்டாள். பகற்குறி, இரவுக் குறிகளிலும் அவர்கள் அடிக்கடி சந்திக்கும் வாய்ப்புகளை ஏற்படுத்தவே மாட்டாள். விரைவில் அவர்கள் ஊரார் அறியத்திருமணம் புரிந்து கொண்டு கற்பு நெறியில் வாழ்க்கை நடத்த வேண்டும் என்ற விருப்பம் கொண்டவளாகவே இருப்பாள். எனவே அதற்கு வேண்டிய இடங்களை வகுப்பதில் அவள் அறிவுத் திறம் மிக்கவளாகக் காணப்படுகிறாள்.

தலைவன் இரு வகைக் குறிகளிலும் பல நாட்கள் வந்து செல்லும் போது தோழிக்கும் தலைவனுக்கும் சில உரையாடல்கள் நிகழும். இனியும் களவிலேயே தலைவியைக் கூடும் வழக்கத்தை விடுத்து விரைந்து மணம் செய்து கொள்ளும் முறையில் இவ் உரையாடல்கள் நடைபெறும். இதுவே ‘வரைவு கடாதல்’ எனப்படும்.

**“இரவினும் பகலினும் நீ வா’ என்றலும்  
கிழவோன் தன்னை ‘வாரல்’ என்றலும்  
நன்மையும் தீமையும் பிறிதினைக் கூறலும்  
புரைபட வந்த அன்னவை பிறவும்  
வரைதல் வேட்கைப் பொருளா என்ப”3  
தொல் - நூற்பா - 1153.**

தோழி வரைவு கடாதல் குறிப்பினால் வரைவு கடாதல், வெளிப்படையினால் வரைவு கடாதல் என இரு வகையில் அமையும் எனக் கூறுவர் இறையனார் களவியல் உரையாசிரியர்.

குறிப்பால் வரைவு கடாதல் என்பது, தோழி தலைவனை நோக்கி, தலைமகளை வேறுபாட்டினை உணர்ந்த அன்னை இ.து இவளுக்கு எதனால் வந்தது என ஆராய்வாளாய் தலைவியை இற்செறிக்கக் கூடும் எனவே

அதற்கு முன்பு மணம் புரிந்து கொள்ளுமாறு குறிப்பால் உணர்த்துவாள்.

**‘பசலை பாய்தரு நுதலும் நோக்கி  
வறிதுஉகு நெஞ்சினள் பிறிதுஒன்று சுட்டி  
வெய்ய உயிர்த்தனள் யாயே**

**ஐய அஞ்சினம், அனியம் யாமே’4 (நற்.368)**

இப்பாடலில் தலைவியின் நெற்றியில் பசலை படர்ந்தற்கு உரிய காரணத்தை அறியாத தாய் அவளை இல்லக் காவலில் வைப்பாள் என்று தலைவனுக்கு கூறுவதன் மூலம் வரைவை வலியுறுத்துகின்றாள். இ.து குறிப்பால் வரைவு கடாதல் ஆகும்.

### இற்செறிப்பு

தலைவனைச் சந்திக்க இடமின்றி பெற்றோர் தலைவியை வீட்டினுள் இருக்க வைத்தலே இற்செறிப்பு ஆகும். தலைவியின் உடலில் தோன்றும் மாற்றத்தினைக் காணும் பொழுதினும் ஊரார் அலர் பேசும் போதும் தலைவியை நற்றாய் இற்செறிப்பாள். தலைவி இற்செறிப்பில் இருப்பதை அறியாத தலைவன் இரவுக் குறியில் தலைவியைச் சந்திக்க வீட்டின் வேலி ஓரமாக வந்து நிற்பான். அது கண்ட தோழி தலைவனுக்கு இற்செறிப்பை தெரியப்படுத்தி விரைவாக மணம் முடிக்க தலைவனை குறிப்பாக வேண்டுவாள்.

**‘கண்போற் பூத்தமை கண்டு நுண்பல  
சிறுபா சடைய நெய்தல்**

**குறுமோ சென்றெனக் கூறா தோளே’5**

**(நற் - 28)**

இப்பாடலில் தோழி, அலைகடலினால் ஒதுக்கப்பட்ட மணலில் விளையாடினோம். அத்தகைய கடற்கரையில் நம் கண்கள் போலப் பூக்கும் நெய்தல் மலரைப் பறித்துச் சூடிக் கொள்ள அன்னை அனுமதி மறுக்கிறாள். எனத் தலைவனுக்கு கேட்குமாறு சிறைப்புறமாக கூறுகிறாள்.

சில நேரங்களில் தலைவனிடம் அன்னை தலைவியின் வேறுபாடு கண்டு இ.து இவளுக்கு எதனால் வந்தது என ஆராய்ந்தாள் எனப் பொய்யாய் கூறியும் தலைவியை அன்னை இற்செறிக்க நேரிடும் எனவும் கூறி இற்செறிப்பு நடப்பதற்கு முன்னரே வரைந்து கொள்ளுதல் நல்லது எனவும் குறிப்பாகக் கூறித் தோழி வரைவு கடாவுவாள்.

வெளிப்பட வரைவு கடாதல் என்பது, தோழி தலைவனிடம் அவர்கள் களவொழுக்கம் ஊராரால் அறியப்பட்டு, முதலில் அம்பலாக முளைத்து பின் அலராக வளர்ந்தது என்று கூறி இனி வரைந்து கொள்வதில் காலம் தாழ்த்தல் கூடாது என்று வெளிப்படையாகவே கூறுவாள் என்பதை,

**‘அறிந்தோர் அறன்இலர்என்றலின்,சிறந்த**

**இன்உயிர் கழியினும் நனிஇன்னாதே**

**புன்னைஅம் கானல் புணர்குறி வாய்த்த**

**பின்ஈர் ஓதிஎன் தோழிக்கு, அன்னோ....’6**

**(நற்.227)**

என்ற நற்றிணைப் பாடலால் அறியலாம்.

### அலர் அச்சம்

மணம் கொள்ளாது களவுப் புணர்ச்சியே கருதி வந்தொழுகும் தலைவனைத் தோழி குறியிடத்தில் தொழுது தலைவியின் களவு பலராலும் அறியப் பெற்று அலராயிற்று என்று வரைவு கடாவுதலை தொல்காப்பியர் கூறும்

**“களனும் பொழுதும் வரைநிலை விலக்கிக்**

**காதல் மிகுதி உளப்படப் பிறவும்**

**நாடும் ஊரும் இல்லுங் குடியும்**

**பிறப்புஞ் சிறப்பும் இறப்ப நோக்கி**

**அவன்வயின் தோன்றிய கிளவியொடு**

**தொகைஇ”7 (தொல் - நூற்பா-1058)**

தோழி கூற்றால் அறியலாம்.

தோழி தலைவனிடம் அவர்கள் களவொழுக்கம் ஊராரால் அறியப்பெற்று முதலில் அம்பலாக முளைத்துப் பின் அலராக வளர்ந்தது என்று கூறி இனி வரைந்து கொள்ளுவதில் காலம் தாழ்த்தல் கூடாது என வெளிப்படையாகவே கூறுவாள்.

**‘.....**

**கல்லக வெற்பன் சொல்லின் தேறி**

**யாம்எம் நலனிழந் தனமே யாமத்து**

**அல்வாய்ப் பெண்டிர் அம்பலொடு ஒன்றிப்**

**புரையில் தீமொழி பயிற்றிய வுரையெடுத்து**

**ஆனாக் கெளவைத் தாகத்**

**தான்என் இழந்தததுஇவ் அமுங்கல் ஊரே’8**

**(நற் - 36)**

இப்பாடலில் இரவுக்குறி வந்த தலைமகனிடம் ஊரார் களவை அலராக்கினர். நீ பிரியேன் எனக் கூறிய பொய்மொழியை மெய்யென நம்பி தலைவி இரவிலும் துயிலாமல் துன்பப்படுகிறாள்.

என வெளிப்படையாக தோழி வரைவினை வேண்டுகிறாள்.

தலைவியைக் காண வரும் தலைவனுக்குத் தோழி தரும் குறிப்புகள் அவனை வரைவு நோக்கி அழைத்துச் செல்லும். தலைவன் சிறைப்புறமாக இருக்க தோழி அலர், அச்சம் தோன்றச் சொல்லி வரைவுக்கு விரைவு படுத்துவதாய் இப்பாடல் அமைகிறது.

**“அலரே, அன்னை அறியின் இவண்உறை வாழ்க்கை**

**அரிய வாகும் நமக்கெனக் கூறின்,  
கொண்டு செல்வார்கொல் தோழி? உமணர்  
வெண்கல் உப்பின் கொள்ளை சாற்றி  
கணநிரை கிளர்க்கும் நெடுநெறிச்  
சகடம்....”9 நற். - 4**

தலைவன் சிறைப்புறமாக இருக்க தலைவியிடம் தோழி, கடற் சோலையில் உள்ள சிறுகுடியில் வாழும் பரதவர்கள் கடலுக்குள் செல்ல நல்ல தருணம் பார்த்து நிற்கும் துறையை உடைய நம் தலைவனிடம் சென்று ‘மறைவாகக் களவொழுக்கம் மேற்கொள்ளும் நமக்கு உண்டான பழிச்சொல்லை அன்னை அறிந்தால் நம்மை இல்லின் கண் சிறை வைப்பாள்’ எனக் கூறினால் வண்டிகளில் உப்பை ஏற்றிச் செல்லும் போது அவை மணலில் மடுத்து ஏற்படுத்தும் ஓசையினால் வயலில் உள்ள நாரைகள் அஞ்சுவதாகிய நெய்தல் நிலத் தலைவன் தன் ஊருக்கு நம்மை அழைத்துச் சென்று விரைந்து மணம் புரிவானா? எனக் கூறுகின்றாள். இப்பாடலில் ஊரின் கண் அலர் எழுந்த காரணத்தைக் கூறி தலைவன் மனதில் அச்சத்தினை ஏற்படுத்தி வரைவிற்கு ஆயத்தப் படுத்துகின்றாள்.

**தலைவியின் நலம் தொலைந்தது கூறி வரைவு  
கடாதல்**

திருமணத்தைப் பற்றிய எண்ணம் இல்லாது இருக்கும் தலைவனைக் கண்டு கோபம் கொண்டவளாய்த் தலைவியின் நலன் அளித்த கொடுமையைக் கூறுவதன் மூலம் தலைவன் விரைந்து திருமணம் செய்து கொள்ளுமாறு தோழி தூண்டுவதாய் இப் பாடல் அமைகிறது.

**“யாரை எலுவ? யாரேநீ எமக்கு  
யாரையும் அல்லை நொதும லாளனை**

**அனைத்தால் கொண்டநம் மிடையே  
நினைப்பின்**

**கடும்பகட்டு யானை நெடுந்தேர்க்  
குட்டுவன்...10 நற்.-395.**

எம்மிடம் நட்பு பாராட்டும் நீதான் எமக்கு என்ன உறவு? அயலான் போலவே உள்ளாய். நம்மிடையே உள்ள உறவைப் பார்த்தால் எந்த உறவும் சொல்லுவதற் கில்லை. குட்டுவன் போர்க் களத்தில் அதிரும் முரசு போல ஒலிக்கும் அக்கடல் அலைகளில் பெண்கள் விளையாடினர். அப்போது அவர்கள் சூட்டியிருந்த பூ கரைக்கு வந்தது. அவற்றையெல்லாம் அங்கு வந்த கிழப் பசு உண்டது. அப்பசு மீண்டும் தான் தங்கியுள்ள இடத்திற்குச் சென்று உறங்கியது. அத்தகைய கடல் வளம் நிரம்பிய மாந்தை என்னும் நகரைப் போல அழகு மிக்க எம்மை நீ விரும்பினாய் அல்லை.

இப்பாடலில் தலைவன் தலைவியை எப்போதாவது தான் வந்து சந்திக்கிறான். அதனால் அவன் மனத்தில் தலைவியை மணம் செய்து கொள்ளும் எண்ணம் இல்லையோ என்ற சந்தேகம் தோழியின் மனதில் எழுகிறது. எனவே தான் கோபமாக ‘நீதான் எமக்கு என்ன உறவு?’ எனக் கேட்கிறாள். தலைவியின் நலன் கெடுவதாய் சொன்னால் தலைவன் தலைவி மேல் கொண்ட காதலால் விரைவில் மணம் செய்து கொள்வான் என எண்ணியே தோழி இவ்வாறு தலைவனைத் தூண்டுகிறாள். தலைவியின் களவை கற்பு நோக்கி செலுத்தும் தோழியின் திறன் வெளிப்படுகிறது.

**வெறியாட்டு**

தலைவியின் உடலில் ஏற்பட்ட வேறுபாட்டை அறிந்து அன்னை கவலையுறுவாள். தலைவியின் நோய்த் தீர்க்க வேலனுக்கு வெறியாட்டு நிகழ்த்துவாள். தலைவி, அன்னையிடம் தன் மெய் வேறுபாட்டிற்கான காரணத்தை கூற இயலாமல் உடலாலும் உள்ளத்தாலும் வேதனையடைவாள். தலைவியின் வேதனையைக் காணும் தோழி, தலைவனிடம் இந்நிகழ்வை எடுத்துரைக்க முயலுவாள். தலைவியின் மேல் உள்ள காதலால் தலைவன் வரைவிற்கு முற்படுவான். எனவே வெறியாட்டு ஒரு வகையில் வரைவிற்கு முக்கிய காரணமாக அமைகின்றது.

‘.....

**அரும்புண் உறுநரின் வருந்தி வைகும்**



**கானக நாடற்கு இதுவென யான்அது  
கூறின் எவனோ தோழி வேறுணர்ந்து  
அணங்குஅறி கழங்கின் கோட்டம் காட்டி  
வெறியென உணர்ந்த உள்ளமொடு  
மறியறுத்து  
அன்னை அயரும் முருகுநின்  
பொன்றேர் பசலைக்கு உதவா மாறே'11  
(நற்- 47)**

இப்பாடல் தலைவிக்கு அன்னை வெறியாட்டு நிகழ்த்தியதையும் அதனால் இந்நோய் தீரும் என எண்ணினாள். ஆனால் வேலன் வெறியாட்டால் தலைவியின் பசலையை நீக்குவதற்கு பயன்படவில்லை. புலி பெரிய களிற்றினைக் கொன்றது. அதனால் பெண்யானை தன் கன்றினை தன்னொடு அணைத்துக் கொண்டு துன்பத்தோடும் வருத்தத்தோடும் செல்லுகின்ற நாட்டினை உடைய தலைவனிடம் இவ் வெறியாட்டு நிகழ்ச்சியை கூறுவதால் தலைவன் தலைவியின் நோய் தீர் விரைந்து வரைவிற்கு முற்படுவான். எனக் கருதிய தோழி தலைவனை மறைமுகமாக வரைவிற்கு வேண்டுவாள்.

### அறத்தொடு நின்றல்

இடம் பொழுது ஏவல் அறிந்து ஒன்றைக் கூறுவதும் செயல் படுத்துவதும் அறிவு நுட்பத்திற்கு அடையாளம் ஆகும். அறத்தொடு நின்றல் என்பது அக்கறையோடும் தெளிவோடும் தைரியத்தோடும் அணுக வேண்டிய ஒன்றாகும்.

அறத்தொடு நிற்கும் காலத்தன்றி அறத்தியல் மரபிலன் தோழி என்ப'12(தொல்.பொருள்.1149) அன்பில் சிறந்த ஒருவனைத் தனது ஆருயிர் துணையாக ஏற்றுக் கொள்வது அறமே என்பதை நினைவுபடுத்தி தகுதியும் சிறப்பும் உடைய தலைவனுக்கே மணம் செய்து கொடுத்தல் வேண்டும் என்று தாயிடம் கூறுவதே அறத்தொடு நின்றல் ஆகும்.

தலைவி முன்வந்து தோழியிடம் முறையிடும் காலமே அறத்தொடு நிற்கும் காலம் ஆகும். 'என் துயர் அறியா அன்னையிடம் இந் நோய் தீரும் வழி இதுவெனக் கூறுவாய் தோழி'13 (நற்.244) என்பாள். அதன் பிறகு தாமதிக்காது களவைக் கற்பு வாழ்விற்கு மாற்றும் செயலை விரைவு படுத்துவாள் தோழி. அந்நியர்க்கு மணம் பேசுதல்,வெறியாட்டு நிகழ்த்துதல் போன்ற செயல்களைத் தன் மதிநுட்பத்தால் நிறுத்தி

குறிப்புணர்ந்து நற்றாயும் செவிலியும் கேட்ட போது தலைவியின் காதலை எடுத்துரைப்பாள். தோழி அறத்தொடு நிற்கும் போது அவளுடைய பொறுப்பு பெரியதாக உள்ளது. தலைவியின் மணம் உணர்ந்து அவளது காதலை மணம் முடிக்கச் செய்வதில் தோழியின் ஆளுமைப் பண்பு வெளிப்படுகின்றது.

### உடன்போக்கு

தலைவியின் காதலை ஏற்காது வேறொருவனுக்கு மகளை மணம் பேசும் பொழுதும், தலைவனைக் காண அனுமதிக்காது இற்செறிப்புச் செய்தாலும் தலைவிக்கு ஆற்றாமையால் துயரம் பெருகும். இந் நிலையில் தோழி 'இனி இவள் இறந்து படவும் கூடும்' என்று உணர்ந்த நிலையில் வேறு வழியொன்றும் தோன்றாத நிலையில் உடன் போக்கிற்கு உடம்படுவாள். தலைவி உடன் போக்கிற்கு உடன்பட்டதும் தோழி அதற்கு வேண்டுவன புரிந்து இரவுக் குறி போல ஒருவரும் அறியா வண்ணம் குறியிடத்திற்கு கூட்டிச் செல்வாள். சென்றவள் தலைவனை நோக்கி,

**'இன்கடுங் கள்ளின் இழையணி நெடுந்தேர்க்  
கொற்றச் சோழர் கொங்கர்ப் பணியூர்  
வெண்கோட்டு யானைப் பேளர் கிழவோன்  
பழையன் வேல்வாய்த் தன்னநின்  
பிழையா நன்மொழி தேறிய இவட்கே'14  
(நற்.10)**

பழையன் என்பானுடைய வேல் குறி வைத்து எப்போதும் தவறியதே இல்லை.அது போல உன்னைத் துணையாகக் கொண்டு நும் சொல்லை நம்பி வரும் தலைவியைக் கைவிடாது வாழ்வில் வெற்றி பெறுக.வயது மிக்க காரணத்தால் தலைவியின் கருமணி போன்ற கூந்தல் நரைத்தாலும் நீ இவளைக் கை விடக் கூடாது என அறிவுரைக் கூறி தோழி தலைவியை தலைவனுடன் உடன் போகச் செய்ததை நற்றிணைப் பாடல் வழி அறியலாம். இவ்வாறு களவுப் புணர்ச்சிக்குரிய தலைவியைத் தலைவன் உடன் கொண்டு செல்லுதல் பண்டைய வழக்கமாக இருந்தது. அ.து உயர்ந்த அற நெறியாகவும் கருதப் பெற்றது என பேராசிரியர் ந.சுப்புரெட்டியார் கூறுகிறார்.15

### தொகுப்புரை

குறிஞ்சி நெய்தல் இரு திணைகளிலும் மறைவான காதல் ஒழுக்கம் அதிகமாக

பாடப்பட்டுள்ளது. குறிஞ்சி நிலத்தில் மகளிர் திணைப்புனங் காப்பதும் ஆடவர் வேட்டையாடுதலும் காதற்களவிற்கு பெரிதும் துணைபுரிகின்றன. மலையும் மலை சார்ந்த இடமாக இருப்பதனால் தலைமக்களின் களவுக் காதல் மறைவாக நடைபெற ஏற்ற சூழலாக குறிஞ்சித் திணை அமைந்துள்ளது.

நெய்தல் திணையில் தந்தை மீன் பிடிக்க சென்று வீடு திரும்ப நீடிக்கும் காலத்தில் தலைவன் தலைவியின் களவுக் காதல் நடைபெறுகிறது. பெரும்பாலும் இந்நிலத்து மகளிர் உப்பு விற்கவும் உப்பிட்ட மீனை உலர்த்துவதற்கும் அதிகம் வெளியில் செல்வது வழக்கமாகும். எனவே குறிஞ்சியைப் போன்றே நெய்தலிலும் தலைவன் தலைவியை சந்திக்க பகல் பொழுது ஏற்றதாக உள்ளது.

குறிஞ்சியில் இரவுக்குறி வீட்டின் அருகே நடப்பதாக பாடப்பட்டுள்ளது. ஆனால் நெய்தலில் மீன் பிடிக்கும் பொருட்டு ஆடவர்கள் கடலுக்கு செல்லும் காலங்களையே இரவுக்குறி நடைபெறுவதாகப் பாடல்கள் எடுத்துரைக்கின்றன.

அன்பின் ஐந்திணைகளில் குறிஞ்சி மற்றும் நெய்தல் நிலத்தில் திணையின் அடிப்படையில் அங்கு நிகழும் தலைமக்களின் களவுக் காதலை தோழிக் கூற்றின் வழி இக் கட்டுரை எடுத்தியம்புகிறது.

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# UNLOCKING THE THERAPEUTIC TREASURY: NILAVEMBU (*ANDROGRAPHIS PANICULATA*) IN FOCUS – A LITERATURE SYNTHESIS

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## Abstract

*"Nilavembu (*Andrographis paniculata*) in Focus" meticulously explores the medicinal potential of this botanical gem. This literature review provides a comprehensive examination of *Andrographis paniculata*, commonly known as Nilavembu, focusing on its diverse medicinal properties. Tracing its historical roots in ancient medicine, the synthesis analyses its phytochemical composition, highlighting key compounds like andrographolides. Illuminating a detailed analysis of its phytochemical composition, with emphasis on key constituents such as andrographolides, flavonoids, and diterpenoids, unveils the molecular basis for its therapeutic efficacy. The chronicle extends to its modern applications in integrative medicine and chronic disease management, supported by ongoing clinical trials. While recognizing existing research achievements, the review identifies gaps and suggests avenues for future investigation. This holistic examination positions *Andrographis paniculata* as a promising botanical resource with significant implications for global health and encourages further exploration in scientific inquiry.*

## Introduction

In the realm of natural remedies, the exploration of traditional medicinal plants has witnessed a resurgence of interest among researchers, driven by a quest to unveil the therapeutic treasures hidden within nature (Sharma et al., 2014). Among the myriad of botanical wonders, Nilavembu, scientifically identified as *Andrographis paniculata*, has emerged as a focal point of scientific inquiry. This literature synthesis endeavours to cast a comprehensive spotlight on Nilavembu, weaving together the strands of its historical roots (Rajagopal, et al., 2014), chemical intricacies (Mishra, et al. 2016), pharmacological significance (Akbar, 2011) and the promising avenues it presents in contemporary medicine.

Nilavembu has etched its presence in the traditional healing tapestry, and as scientific scrutiny intensifies, its potential to address a spectrum of health concerns comes to the fore. As we embark on this exploration, our journey begins by tracing the historical footprints of Nilavembu, understanding its cultural significance, and unraveling the tapestry of traditional uses that have withstood the test of time.

A closer examination of its chemical composition follows, delving into the molecular constituents that imbue Nilavembu with its medicinal prowess, with a keen focus on the renowned andrographolides and other bioactive compounds (Adhikari & Paul, 2018).

As we navigate through the pharmacological landscape, this synthesis aims to dissect the immunomodulatory, antiviral, antimicrobial, and anti-inflammatory facets of Nilavembu, shedding light on its potential therapeutic applications. Moreover, we will bridge the gap between tradition and modernity, exploring how Nilavembu's ancient wisdom aligns with contemporary scientific investigations, and how it might find a place in the evolving landscape of integrative medicine (Kamalarajan et al., 2019) and (Jain et al. 2020) Join us on this intellectual expedition as we unlock the therapeutic treasury of Nilavembu, a plant whose story transcends time and beckons the scientific community to harness its healing potential for the benefit of humanity.

## Historical Context: Nilavembu in Traditional Medicine

### Origins and Cultural Significance

The journey of Nilavembu through the annals of time reveals a rich tapestry woven into the fabric of ancient traditional medicine systems. Its origins can be traced back to regions where communities relied on nature's bounty for remedies, long before the advent of modern pharmaceuticals. Embedded in the historical narratives of diverse cultures, Nilavembu has stood as a stalwart companion in the pursuit of health and well-being (Jain, 1991., Krishna and Thileepan 2019., Gogte, 2000). For example, in ancient Indian Ayurveda, Nilavembu was valued for its ability to treat various ailments such as fevers, digestive issues, and respiratory problems (Mattummal et al., 2018). It was often prepared as an herbal concoction or decoction and consumed regularly as a preventive measure against diseases (Nety and Shraddha, 2019). This cultural significance of Nilavembu has been passed down through generations, with many traditional medicine practitioners still prescribing it today (Ghorai and Subrata, 2018).

The roots of Nilavembu run deep, reaching into the heart of traditional healing practices. Cultures across Asia, particularly in India and Southeast Asia, have venerated this botanical marvel for centuries. This section delves into the historical origins of Nilavembu, unraveling its migration through cultural practices and traditional healing rituals (Balick, and Cox, 1996., Prance & Nesbitt, 2005). By understanding its journey from ancient times, we gain insights into the cultural ethos that has nurtured and preserved the knowledge surrounding Nilavembu (Sudhakaran, 2012).

### Traditional Uses

Nilavembu's significance transcends its historical roots; it is deeply interwoven with the tapestry of traditional medicine (Chopra et al., 1958., Nadkarni, 1976). This subsection explores the diverse array of ailments for which Nilavembu has been a trusted remedy. From tackling fevers that have plagued communities to addressing respiratory issues that

linger in the air, Nilavembu has been a versatile therapeutic agent.

In different regions, communities have harnessed the potency of Nilavembu to combat a spectrum of health challenges. Its traditional uses extend to addressing conditions such as colds, flu, and digestive disorders. Moreover, the adaptability of Nilavembu in traditional healing practices showcases its versatility, marking it as a go-to remedy in the ancient pharmacopoeia (Sharma et al., 2014., Ghorai 2018).

As we navigate through the historical currents of Nilavembu's traditional uses, we uncover a legacy of healing that has withstood the tests of time. This exploration not only sheds light on its past applications but also serves as a foundation for understanding its potential in contemporary healthcare, linking the wisdom of the ancients with the advancements of the present.

## Chemical Composition of Nilavembu

### Phytochemical Profile

At the heart of Nilavembu's medicinal prowess lies its intricate phytochemical composition, a complex amalgamation of bioactive compounds that have been the subject of keen scientific interest (Mekala, and Murthy 2020). This section embarks on a journey into the molecular tapestry of Nilavembu, shedding light on key constituents that define its therapeutic identity.

Among the standout compounds within Nilavembu are the andrographolides. These diterpenoid lactones, prominently featuring andrographolide, neoandrographolide, and dehydroandrographolide, are recognized for their potent medicinal properties. Additionally, flavonoids, such as quercetin and kaempferol, contribute to the plant's antioxidant capacity. Diterpenoids further enrich Nilavembu's chemical profile, providing a diverse array of compounds that collectively bestow it with a multifaceted therapeutic potential (Rozaan, and Boriy, 2022).

Understanding the phytochemical makeup of Nilavembu is crucial in unravelling the mechanisms behind its traditional and modern applications. The

andrographolides, for instance, are renowned for their immune-boosting properties, acting as immunomodulators that enhance the body's defence mechanisms. Flavonoids, on the other hand, bring antioxidant capabilities, helping to neutralize harmful free radicals and reduce oxidative stress (Kamalarajan, et al., 2020., Anyamele, et al., 2023.)

### **Bioactive Compounds and their Effects**

Delving deeper into the pharmacological nuances, this subsection focuses on the specific bioactive compounds within Nilavembu and their profound effects on human health. Andrographolides, as primary contributors, exhibit a spectrum of therapeutic actions. Their anti-inflammatory properties make Nilavembu a potential candidate for addressing conditions characterized by excessive inflammation, offering relief and potential therapeutic avenues for disorders like arthritis or inflammatory bowel disease (Kamalarajan et al., 2020, Lekha et al., 2020).

Moreover, the antioxidant effects of flavonoids play a crucial role in mitigating oxidative stress, which is implicated in various chronic diseases. This multifaceted approach showcases Nilavembu as more than just a traditional remedy; it becomes a holistic botanical agent with diverse applications in modern medicine (Anbarasu et al., 2011., Jain et al., 2020).

In conclusion, the in-depth analysis of Nilavembu's phytochemical profile and bioactive compounds unravels a rich pharmacological tapestry. The integration of andrographolides, flavonoids, and diterpenoids contributes to the plant's efficacy, positioning Nilavembu as a promising subject for further exploration in the realm of natural medicine and drug development.

### **Pharmacological Properties of Nilavembu**

#### **Immunomodulatory Effects**

Nilavembu's pharmacological profile is characterized by its remarkable immunomodulatory effects, ushering in a new era of exploration in the realm of natural medicine. This section probes into the intricate dance between Nilavembu and the immune

system, unravelling how this botanical marvel enhances the body's defence mechanisms against a barrage of pathogens.

Studies have shown that Nilavembu acts as a potent immunomodulator, orchestrating a harmonious symphony within the immune system. The andrographolides, key bioactive compounds within Nilavembu, play a pivotal role in regulating immune responses. By modulating the activity of immune cells such as T lymphocytes and macrophages, Nilavembu fine-tunes the immune system's ability to recognize and combat invading pathogens. This immunomodulatory prowess positions Nilavembu as a promising candidate for supporting immune function and resilience (Krishna et al., 2019., Krishna, and Thileepan 2019., Mekala, and Murthy 2020).

#### **Antiviral and Antimicrobial Activity**

In the ongoing quest for effective antiviral and antimicrobial agents, Nilavembu emerges as a compelling contender. This subsection delves into the extensive body of research that scrutinizes Nilavembu's potential in inhibiting various pathogens, including viruses and bacteria. The plant's bioactive compounds, particularly andrographolides, showcase significant antiviral properties, hindering the replication of viruses and impeding their ability to infect host cells (Mishra and Mishra 2017).

Furthermore, Nilavembu demonstrates broad-spectrum antimicrobial activity, exerting inhibitory effects against a range of bacteria. From respiratory infections to gastrointestinal maladies, the antimicrobial potential of Nilavembu positions it as a versatile ally in the fight against infectious diseases (Jain et al., 2020). The exploration of its antiviral and antimicrobial activities not only accentuates Nilavembu's traditional uses but also elevates its status as a potential therapeutic agent in modern medicine.

#### **Anti-Inflammatory Effects**

Chronic inflammation is a hallmark of various diseases, and this section sheds light on Nilavembu's prowess in mitigating inflammatory responses. The

anti-inflammatory effects of Nilavembu, attributed to compounds like andrographolides, offer a promising avenue for managing conditions characterized by persistent inflammation.

By modulating key inflammatory pathways, Nilavembu demonstrates its potential in alleviating symptoms associated with inflammatory disorders. Conditions such as rheumatoid arthritis, inflammatory bowel diseases, and respiratory ailments may benefit from Nilavembu's anti-inflammatory properties. This dual action, targeting both the immune system and inflammatory pathways, positions Nilavembu as a holistic therapeutic agent with potential applications in immune-related and inflammatory conditions.

In conclusion, the exploration of Nilavembu's pharmacological properties reveals a multifaceted botanical ally. From orchestrating immune responses to combating pathogens and mitigating inflammation, Nilavembu emerges as a promising natural remedy with the potential to contribute to the ever-expanding arsenal of therapeutic options in modern medicine.

### **Modern Applications of Nilavembu Integrative Medicine and Nilavembu**

As the realms of traditional and modern medicine converge, Nilavembu emerges as a pivotal bridge between ancient wisdom and contemporary scientific exploration. This section delves into the evolving landscape of integrative medicine, where the synergistic integration of traditional practices and scientific advancements propels Nilavembu into the spotlight of modern healthcare (Handa, and Sharma 1992).

Researchers are actively exploring the integration of Nilavembu into contemporary healthcare practices, seeking to unlock its full therapeutic potential. Ongoing clinical trials and studies form the cornerstone of this exploration, providing a scientific lens through which the efficacy and safety of Nilavembu can be rigorously assessed. The marriage of traditional knowledge with evidence-based medicine becomes apparent as

researchers strive to validate the traditional uses of Nilavembu through robust scientific methodologies. Discussions within this section extend beyond theoretical considerations, encompassing real-world applications of Nilavembu in clinical settings. Preliminary findings and emerging trends in the integration of Nilavembu shed light on its feasibility as a complementary or alternative therapeutic option. From immune system modulation to potential anti-inflammatory effects, the modern applications of Nilavembu in integrative medicine hold promise for enhancing patient outcomes and expanding the therapeutic toolkit available to healthcare professionals (Chua, et al. 2020).

### **Nilavembu in Chronic Disease Management**

As the prevalence of chronic diseases continues to rise globally, the search for effective management strategies intensifies. This subsection focuses on the burgeoning research surrounding Nilavembu's role in the management of chronic diseases, encompassing conditions such as diabetes, cardiovascular disorders, and neurodegenerative ailments. Emerging studies suggest that Nilavembu may exert beneficial effects in chronic disease management. In the context of diabetes, for example, research indicates potential anti-diabetic properties, including blood sugar level regulation. Cardiovascular conditions, characterized by inflammation and oxidative stress, may find a potential ally in Nilavembu's anti-inflammatory and antioxidant properties. Additionally, ongoing investigations into the neuroprotective effects of Nilavembu hint at its potential role in mitigating neurodegenerative disorders.

The exploration of Nilavembu's applications in chronic disease management underscores its versatility as a holistic therapeutic agent. From addressing underlying inflammatory processes to modulating key physiological pathways, Nilavembu's potential contributions to modern healthcare become increasingly evident.

### **Challenges and Future Directions Research Gaps and Limitations**

Despite the burgeoning interest in Nilavembu, the landscape of research is not without its intricacies

and challenges. This section critically examines the existing body of research, aiming to identify gaps and limitations that warrant careful consideration in future investigations.

One notable challenge lies in the variability of Nilavembu preparations used across studies (Akowuah et al., 2004). Diverse formulations and extraction methods contribute to discrepancies in the reported outcomes, making it challenging to draw definitive conclusions about the plant's efficacy. Standardization of Nilavembu preparations and meticulous documentation of methodologies would provide a more robust foundation for comparison and analysis (Naranjo et al., 1981., Oh et al., 2016).

Another research gap pertains to the limited exploration of synergistic effects between Nilavembu and conventional therapies. Integrating Nilavembu into existing treatment regimens may offer enhanced therapeutic outcomes, yet comprehensive studies on potential interactions, both positive and negative, remain scarce. Future research should explore these interactions to ensure the safe and effective integration of Nilavembu into mainstream healthcare practices.

Furthermore, while some studies highlight the immunomodulatory, antiviral, and anti-inflammatory properties of Nilavembu, the precise mechanisms underlying these effects remain incompletely understood. Elucidating the molecular pathways involved will deepen our understanding of Nilavembu's pharmacological actions, paving the way for targeted therapeutic applications.

### Potential Risks and Side Effects

In the pursuit of medicinal efficacy, it is imperative to scrutinize the potential risks and side effects associated with Nilavembu. Despite its traditional use, limited information is available on its safety profile in the context of contemporary medicine. This subsection delves into existing literature, exploring reported adverse effects and potential risks (Naranjo et al., 1981., Yang et al., 2015).

While Nilavembu is generally considered safe in traditional practices, some studies suggest the possibility of gastrointestinal discomfort and allergic

reactions in susceptible individuals (Zhang et al., 2014). Rigorous clinical trials with larger sample sizes are needed to comprehensively assess the safety of Nilavembu, particularly in vulnerable populations such as pregnant women and individuals with pre-existing medical conditions.

Moreover, potential herb-drug interactions represent an area of concern. Given the growing interest in Nilavembu's integration into modern medicine, understanding its compatibility with commonly prescribed medications becomes paramount. Robust pharmacokinetic studies and real-world monitoring of patients undergoing combined therapies will contribute valuable insights into the safety of Nilavembu in diverse clinical scenarios (Singh et al., 2003).

### Conclusion

In concluding this literature synthesis, we underscore Nilavembu's potential as a therapeutic powerhouse, advocating for a nuanced approach in integrating it into modern medicine. From its roots in traditional healing to scientific scrutiny, Nilavembu's journey unfolds with historical significance, chemical intricacies, and pharmacological promise. Challenges, including research gaps and safety concerns, guide the future trajectory of Nilavembu exploration. Moving ahead necessitates collaborative efforts, standardized methodologies, and a multidisciplinary approach to bridge research gaps. Rigorous clinical trials and thorough safety assessments are imperative to unlock Nilavembu's full therapeutic potential.

Standing at the crossroads of tradition and modernity, Nilavembu invites researchers, clinicians, and policymakers to embrace its promise with prudence. The future envisions exciting possibilities for Nilavembu in modern medicine, and ongoing scientific inquiry will illuminate the path for its optimal utilization, contributing to global health improvement.

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## IMPACT OF CHILDHOOD EXPERIENCES IN SHAPING PERSONALITY: PSYCHODYNAMIC PERSPECTIVE IN SUDHA MURTY'S "COMMON YET UNCOMMON"

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### Abstract

*Literature is a repository of personal experience, individual realities, emotions, feelings and the Human psyche. Both Psychology and literature deal with similar issues and both can borrow from each other for interpretation and perspectives. Psychodynamics is the psychology of mental forces or processes developing especially in early childhood. Understanding the human behaviours through psychodynamic lens emphasizes on the role of underlying factors and subconscious forces. Sudha Murty, the renowned Indian author took inspiration for some of her books from her childhood memories which she spent with her parents and grandparents in her native town. This paper throws light on how the writer drives unconscious inspiration from the personalities of childhood for the rest of her life, which is evident through the characters of her stories in "Common Yet Uncommon". The author relived her childhood day through Nalini, the young girl who observes, participates and understands various aspects of life in the small town. The values she showed up in later life were the true inspirations of the real characters such as Bindu, Hema, Bhagirathi and her grandmother.*

**Keyword:** *Childhood Experience, Sudha Murty, Psychodynamic Approach.*

### Introduction

Sudha Murty is a renowned Indian writer who was born in Shiggaon, Karnataka. She writes in Kannada and English. She took inspiration from her childhood memories which she spent with her parents and grandparents. She has co-founded the Infosys Foundation along with her husband Narayana Murty. She has penned collections of short stories, travelogues, technical books, non-fiction stories, novels and children's books. Some of her books were translated into several Indian languages and adapted as television series and movies. She has received various prestigious awards such as Padma Shri in, the R.K. Narayan Award for Literature and the Daana Chintamani Attimabbe. Her famous works are How I Taught my Grandmother to Read and other stories, The Magic of the Lost Temple, 'Dollar Bahu, Mahashweta and Three Thousand Stitches.

Sudha Murty's "Common Yet Uncommon" is a collection of fourteen stories of ordinary people who stand out to others in everyday life. Sudha Murty delves into her childhood memories from her hometown. The setting of the book is in Northern

Karnataka which has a peculiar history. The region displays the amalgamation of cultures, different dialects and variety of food habits as the footprints of several emperors ruled over the state. Mrs. Murty brings out uncommon personalities from this land who were a part of her grown-up years. She appears as Nalini, called as Nali, who comes sometimes as a young girl, sometimes as adult and sometimes as a married woman linking the stories together.

Literature is a repository of personal experience, individual realities, emotions, feelings and the Human psyche. Both Psychology and literature deal with similar issues and both can borrow from each other for interpretation and perspectives. Psychodynamic is the psychology of mental forces or processes developing especially in early childhood. Psychodynamic theory is an approach to understanding human behaviour that emphasizes the role of underlying factors and subconscious forces. The term is also used to refer specifically to psychoanalytical approach developed by Sigmund Freud. This approach postulates that subconscious motivations are at the root of conscious experience

and behaviour, By understanding the subconscious, one can gain insights into why human behave the way they do. According to the theory the subconscious is constructed through experience throughout life, particularly in early childhood.

The tales in the book "Common Yet Uncommon" portray a group of uncommon personalities from Murty's homeland who inspired her in several ways from her childhood to adulthood. She has learned something from each of them. Hema, Parvati, and Bhagirathi are the truly inspiring middle-class women in the stories. In that region people like to call others by pet name rather than their actual names. The eccentricity of some Characters brought the peculiar names for them as, Bundle Bindu, Gadibidi Bhatta, Jealous Janaki, Shopkeeper Jayant, Miser Jeevraj and Selfish Suman. Bindu Madhav Patil, the young man was called Bundle Bindu. He hardly tells the truth with exaggeration. He got the prefix "bundle" since he wraps people in his talk. He never bothered about people insulting him. He neither says no to work assigned to him nor does it himself. In his embellished flow, he will narrate that he has written a letter to Obama to visit Hampi. The innocent children of the community believed whatever he told them. Though he had a skill for exaggerating he knows his history very well. He was the honorary history teacher for the children of the neighbourhood. Nali recalls how he enchanted them with his history lessons:

His words would hypnotize us- we would lose ourselves in these imaginary stories. Once, we sobbed after he had described the emperor Rama Raya, the son-in-law of Krishna Deva Raya and Commander-in-chief of the Vijayanagar Army. Then he said, 'Because the son-in-law never earned the kingdom with hard work, he never valued it. We lost our freedom forever'!(9)

Later Bindu wrote a Kannada poem for Nali's daughter to recite daily that reminds Nali of her childhood days memorizing and reciting the poem in front of him. She admits that even now she enjoys reading it and is proud of her rich heritage. Her love

for Kannada developed not from books or teachers but from him. He is one of the most influential people from her childhood.

People of the small town live like a family, taking pride in bonding and helping others in time of need. Hema is a heartwarming character, who willingly helps others at their crises or events such as childbirth, Marriage, Naming ceremony and death without expecting anything from them. She even put aside her ego to settle the misunderstanding between the two parties for a peaceful wedding. In Nali's view, Hema is one of the best philanthropists that she met in her childhood. Nali states the principle of Hema Aunt as:

Nali, I have a principle, I am not well educated, and I don't know much about philosophy, but I have learnt that we get a human life with great difficulty. You could have been easily born as a dog or a cat or a mosquito. When you are born a human, don't expect anything from anyone. But help others when they are in need. (62)

Banabhatta and Parvati are a mismatched couple in the town. Parvati has a gracious look and likable personality, she was known for her clean and organized household work. In contrast, Banabhatta was shabby and unattractive. He was always in a hurry, running to temple and ceremonies that earned him the name 'Gadibidi Bhatta' in Kannada which means hurry burry. Parvati and Bhatta's daily routines were different, they never sat together to share a common interest or went out together. Nali wondered when Parvati died of a heart attack, Banabhatta died within twenty-four hours of her death. They were together in the final journey. Nali was amazed at 'the couple who truly loved each other without even telling the other about it.'(74)

Through Nali, the writer remembers one of her childhood friends, Suman who was brought up in a greedy atmosphere by her parents. When Suman heard about the prospective groom to visit her friend Shyamala, a young girl of ordinary look. Cunningly Suman dressed up well and visited on time of the groom's arrival at Shyamala's house. He falls for Suman's beauty thus she snatches Shyamala's groom

Dr.Ganesh for her. Only after the marriage, her true colours came out. Nali's Grandmother peeps up in several stories giving out elderly advice, Jayant, Nali's cousin who failed in business used to associate everything with money. He opines that feeding guests is a waste of money. Grandmother advises that one must not equate food with money. She counsels, 'The more food you give away the better karma you get. Don't ever calculate how much we eat (16). Sudha Murthy through her several stories exposes that her Grandmother is her true inspiration for her values in life.

Sudha Murthy narrates the story of adventurous Bhagirathi, who at an early age climbs trees and visits the field for fun with her cousins. Later, she managed 100 acres of cultivation and showed great care towards her farmers and coolies like own her family. When her husband's uncle denied their share in the property, she fought for it without any support from her own family. At last, their uncle lost the case in court and hundred acres of land was allotted to her family. Mrs.Murty points out that this successful famer teaches what institutes of management teach today. Bhagirathi says 'to be a successful farmer you need to be able to motivate the people who work with you'. (91)

### Conclusion

Sigmund Freud proposed a well-acknowledged connection between childhood experience and adult characteristics. Childhood is a crucial stage in development. Much of our behaviour is driven by unconscious motives from our daily life. The writer who narrates her own childhood experience might

have unconscious influence from the personalities who lived with her in early days. Bindu introduced the children to their historical heritage and instilled love for Kannada at an early age. This invaluable inheritance leads her to write and love her mother tongue. As a young girl, she was amazed at the real philanthropist, Hema. She understands philanthropy need not be giving away money to other people. Helping people without expecting anything in return and continuing the work is real philanthropy. This profound philosophy that she learned in childhood made her find happiness in charitable works. Through the character Suman, the writer understands that the greatest Vijayanagar Empire lost because of selfishness. This happens when people prioritize their own benefit over the greatest good for all. A good leader needs to have a broad vision and a big heart. Sudha Murty's inspirational characters are not famous people who strive for any recognition from society and they possess clear minds and show high magnanimity. They are simple, straightforward and helpful, these characteristics influenced the writer's behaviours as a child and became the unconscious motives for her greatest personality and later achievements. Thus she has derived her creativity and ideology from her own experience.

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# A STUDY OF THE PRESENT SITUATION OF THE SAURASHTRA WEAVERS - A MINORITY GROUP IN MADURAI

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## **Abstract**

*The Saurashtra people, also colloquially known as Palkar or simply Saurashtrains are the linguistic minority group of India who speak the Indo-Aryan language called Saurashtra. These people are found majorly in the parts of South India, especially in Madurai. The predominant occupation of these people was weaving and merchanting. But in recent years there has been a tremendous decline in the number of Saurashtrains weaving. This is because of various socio-economic causes. The study aims to analyze the causes and reasons behind the decline of these weavers and the current situation of this minority group. The study also offers some recommendations to restrict the declining number of weavers.*

**Keywords:** *Saurashtrians, Handloom, Weavers, Socio-Economic Conditions, Minority Groups.*

## **Introduction**

Not too far from the heart of Madurai city, is Krishnapuram Colony, which also goes by the name Weaver's Colony, a reference to the primary vocation of those settled there. The community of handloom weavers hails from Saurashtra, which is the peninsular region of Gujarat, that covers nearly one-third of the western Indian state. The community from Saurashtra migrated to Tamil Nadu about 400 years ago and has made the cultural capital of Tamil Nadu their home. But in recent years the population of this linguistic group opting for weaving is facing a very big drop. The handloom industry in India is the second largest sector after agriculture. Despite such an imperative role played by the handloom industry, there is a notable decline in people's weaving. This is mainly because of industrialization and cheap labour. The study focuses only on the Saurashtrian population of Madurai who have dropped weaving and the reason and causes of such disinterest.

## **Review of Literature**

Many studies have been undertaken to study the economic conditions of handloom weavers at various places and studies have been made on various sectors of the textile industry. Here are a few such studies

reviewed. The paper studies the financial situation of Indian weavers and analyzes the strengths and weaknesses of the handloom industry to make it profitable. The study also suggests a few remedial measures for the growth and development of handloom industries. The paper aims to study the influence of demographic variables like gender, age, educational qualification, occupation and annual income on customer satisfaction towards handloom products. The study analyses the importance of the handloom industry in India and the problems faced by the sector. Also, it reveals the importance of the "Make in India" campaign for alleviating the Indian handloom sector. The paper makes an in-depth study into the life and misery of handloom households in a selected prominent area of this sector.

## **Statement of the Problem**

The paper attempts to study the reason behind the decline in the number of Saurashtrian weavers and their current living status. In short, the studies detail the demographical features, occupational activities and living style of the Saurashtrian weavers at present.

A. Scope of the study The present study deeply analyses the demographic, occupation and living of the Saurashtrian weavers. The study encounters the

problems faced by the weavers and the alternatives they choose because of such existing issues.

B. Limitation of the study The study is constrained only to the Saurashtra-speaking weavers-linguistic minority of the Madurai district in Tamilnadu. The information gathered and provided in this paper is purely collected from the Saurashtrian weavers of Madurai.

C. Objectives The main Objective of the study is to find out the reason behind the decline of the Saurashtra people's weaving. Current situation of this linguistic minority group. Suggest some helpful ways to protect the interest of the weavers.

D. Sources of data The study is made purely from the primary data collected from the Saurashtrian weavers. The study has been conducted in the areas of Madurai District, Tamil Nadu. The regions covered are Krishnapuram colony Nilaiyoor Pambannagar Avaniyapuram the Saurashtrian people are found more in these areas in Madurai.

E. Tools for data collection the data is collected through the investigative schedule method covering the questions relating to the demographic profile of the weavers, reasons for their backdrop from weaving, alternative occupation, socio-economic conditions, demand and suggestions they make for protecting their interest.

F. Sample size As the study is concentrated only on the Saurashtra-speaking weavers, the study is undertaken in a few selected places of Madurai and 50 families are taken as the sample size.

G. Division of study the study is divided into three parts. The first part discusses about the demographic details, the type of saris they weave, dealers, distributors, labour and other necessary information. The second part deals with the reason behind the disinterest of people in weaving and the problems they currently face. The last part deals with the demands raised by the weavers and some suggestive methods to protect the interests of these weavers.

H. Demographics The percentage of people weaving these sarees has a huge difference. Among the 100 families surveyed only 15 families weave

pure silk sarees, 27 families weave cotton sarees, and the remaining 58 families choose weaving cotton silks. When the reason analyzed behind this big gap in the choice of saree, the common reason given by the majority of the population was that though the wage for weaving pure silk is the highest the amount of work required is so high, that two people are required at a time to weave, it is very delegate, even a small mistake can spoil eight whole sarees. The weavers also are not affordable to replace the damage. For this main reason, many people avoid the liability of taking risks in weaving pure silks. Cotton sarees: handloom weaving cannot give an attractive design in cotton sarees, though today's generation goes for cotton sarees, people do not choose these unattractive sarees except a few. Having such less demand people weaving cotton sarees are more discouraged. Weaving of cotton saree is quite easier than weaving other sarees. Silk cotton saree: the majority of people choose to weave these silk cotton sarees as the weaving time is flexible, not so many risk-taking factors, also have considerable good demand compared to other types of sarees.

I. Agents and wages of the weavers The weavers get raw materials either directly from the wholesalers of the product or through agents. Maximum people choose to get it from the agents, the main reason behind this is that meeting the wholesaler directly and getting raw materials is time-consuming which results in one whole day of loss of work. There are so many disadvantages to relying upon agents. Despite such disadvantages, people prefer it because the weavers in remote areas and aged people find it difficult to travel to the place of the wholesalers. In the case of agents, they get the raw materials at their doorstep. The main disadvantage of the agents is that the agents get a higher percentage of commission resulting in lesser wages to the weavers. The intermediaries get more profit without much hard work. The main job of the agents is to distribute the raw materials to the weavers collect the finished sarees from the weavers and give them to the wholesalers for the actual market sale. The agents give the raw material that is the weaving thread and

an amount of Rs.9000-9500(second-grade silk) or Rs.4800(silk cotton) or Rs.4200(cotton) as the wage as a whole for a bundle of thread, depending on the type of saree they weave. The whole bundle of thread can give out 8-9 full sarees. A weaver may take a minimum of 5 and a maximum of 10 days to complete weaving the whole bundle. The wage given further goes into many hands, like to the people involved in warping and loading, punching cards and loading and repairers in case of any default.

### Process Involved in Weaving

There are various processes involved in weaving. The processes from thread to complete saree include the following.

- Dyeing
- Winding
- Spinning
- Warping and loading
- Punching card and loading
- Weaving

A. Dyeing The raw thread is dyed as per the need. Different and contrasting colours are used for the body of the saree and the border or pallu of the saree. For dyeing, the raw thread is soaked in the hot boiling water. Washing soda and the desired colour dye are added to the boiling water. The thread is dipped well and then immersed in normal water to remove excess colouring. The dyed thread is dried well for 3-4 days.

B. Winding: After dyeing the yarn is brought to the winding process. In this process, the yarn is transferred to the spool facilitating further process.

C. Spinning After winding, the spool is spun onto to the spindles and the parivattam with the help of the spinning wheel. The spindles are used in the fly-shuttle which is used in weaving. D. Wrapping and loading: Warping is the process in which the yarn is stretched between two iron (or) wood poles to entangle the thread and then knotted together. It is usually done in the shade so that the yarn is not sun-bleached. Four or six people work together in this process. After warping the yarn is dipped in the rice starch (kanji) to make it stiff and luster. The yarn is

later warped in the large wooden beam and loaded to the loom. The process of weaving starts after loading the warp.

E. Weaving After warping and loading, the weaver starts weaving. WE. Weaving After warping and loading, the weaver starts weaving. Weaving is done on the fly shuttle looms. The weaver interweaves the threads of weft and warp. The shuttle passes through the gap formed when the treadle is operated to interweave the threads of warp and the weft. Once the shuttle is passed, the adjourned rope from the jacquard is pulled to form the weave. The woven cloth is enfolded to the wooden beam. Thus, once the weaving is completed the cloth is cut into full-length sarees and folded neatly for sale.

F. Co-operative societies of the weavers: Co-operative societies are formed with the help of the government to assist weavers financially. Weavers' children are given Rs.600 every year once they complete 10th and 12th standard for their higher studies. The amount is given even after they join college, every year till they are graduated. G. Role of government The role of the government is very minimal. The government fails to look into the growth and development of the weavers. They struggle hard for their living because of the exploitation of the agents and the producers. Recently, the weavers of Madurai called up a strike demanding a rise in the wages given. After a week of continuous strikes, they have now raised the wage by 2-5%.

H. Declining number of weavers Due to lesser wages and the advancement of the power loom, the number of weavers continuing weaving has decreased. The present weavers will be the last generation of Saurashtrian weavers. The upcoming generations are opting to other fields that could earn more income. The weavers during the interview spoke out with tears filling their eyes that they struggle very hard to earn and give up many things for the education of their children. They do not want their next generation to suffer to earn an income from weaving. This alarms the society that the Saurashtrians known for weaving are declining. This

may result in no more weavers in the Saurashtrian community in the future.

I. Poor marketing Effective sales happen only when there is effective marketing. The marketing level is inadequate to reach the demand. As the sales rate is very low the wages are also low. In this trend world, people preferring handloom sarees has decreased. There are only a few people here and there who buy these sarees. Improvised marketing techniques and reaching out to people in wider geographical areas can increase sales thus resulting in increased demand.

J. Current situation of the weavers In recent years this weaving community have adopted various other occupations from professors, engineers, and doctors to lawyers. Many have also settled abroad with high-paying jobs. The saddest truth is that these community people are giving up their family traditional jobs for the sake of money that could satisfy their needs sufficiently.

K. Suggestions for protecting the interest of the weavers Though it is very late, some steps can be taken to protect the present surviving weavers. The suggestions include the following:

- The government shall take steps to buy all the products from the weavers directly.
- The government can provide interest-free education loans for the education of their children. Increase wages.
- Prevent exploitation of the agents.
- Encourage commoners to buy handloom sarees to increase the demand.
- Conduct camps to educate weavers about new weaving techniques.

These suggestions are only elementary and could protect the weavers' interest as of now. The government should make long-term policies to protect the weavers.

### Conclusion

From the above study, it can be construed that though weaving was the traditional occupation of Saurashtrians, people suspended themselves from weaving because of their lesser wages, development

of power, etc. They find it difficult to run their family with the wages they earn. Long working hours and efforts of the whole family earn only half of the stomach. The Government must see to the problems faced by them and take appropriate measures. The textile industry is the most prominent sector of India, and such a decline in the number of weavers may also affect the growth of the economy.

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## THE STATUS OF WOMEN DURING NAYAK'S PERIOD

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### Abstract

*During madurai Nayak's Period the status of women was generally inferior to that of men. The Madurai Nāyakkdom had the credit of having two queens as Regents, Mangammāl and Mīnākshi. During the declining state of the Nayakdom, power was bequeathed on women. It is to be noted that the rule of queens prevailed in the Madurai Nayakdom alone in the annals of Tamil country. But the status of women was not satisfactory. Education was not given to them. In the sixteenth century women were taken as prisoners of war and put into prison. A recently discovered Palani copper-plate appreciates the deed of Sangu Pillai, the custodian of the Virudhunagar region, for paying eight hundred and eighty gold coins and getting the release of eight women from prison who were captured by the generals of Madurai Nayak.*

### Introduction

During madurai Nayak's Period the status of women was generally inferior to that of men. The Madurai Nāyakkdom had the credit of having two queens as Regents, Mangammāl and Mīnākshi. During the declining state of the Nayakdom, power was bequeathed on women. It is to be noted that the rule of queens prevailed in the Madurai Nayakdom alone in the annals of Tamil country. But the status of women was not satisfactory. Education was not given to them. In the sixteenth century women were taken as prisoners of war and put into prison. A recently discovered Palani copper-plate appreciates the deed of Sangu Pillai, the custodian of the Virudhunagar region, for paying eight hundred and eighty gold coins and getting the release of eight women from prison who were captured by the generals of Madurai Nayak.

### Marriage

Polygamy prevailed among the ruling class and child marriage was accepted. Girls were given in marriage at the age of seven. The system of swayamvara was rare. The marriage of Akhilāṅ ḍ ēswari, the daughter of Vijaya Raghunatha Sethupathi, was performed in the swayamvara model. Different types of marriage tradition were followed by different castes. The Tottian or Kambalathār celebrated their marriage by constructing two huts outside their village. The

ceremony was held for three days. The taliwas tied by the bridegroom's sister and the marriage was performed by Koḍ āngi Nayakaṅ s. The custom of marrying within the caste was strictly followed and the child born of that marriage alonewas the legal successor. The system of giving dowry and the observance of rigid ceremonies during marriage was in practice. The Tirukalyanam festival in the Minakshi Temple in the month of Chitirai, which was introduced by Tirumalai Nayak, gives an insight into the ceremonies, customs and tradition of marriage during the Nayak period.

### Divorce

Divorce and widow remarriage were allowed among the lower classes. Divorce was not prevalent among higher classes. Divorce was easily obtained by either side if the reasons were established. If the husband opted for divorce he should give half of his property. If the wife initiated the proceedings, she should give forty-two Kali Paṅ ams which she obtained from her parents.

### Poly Gamy

During the time of marriage sridhanam (dowry) was given to the bridegroom. Aivar Rājākkal Kathai lists the things given as dowry. Polygamy prevailed. The kings and poligars married many ladies. Jesuit

Fathers John Nieuhoff and Proenza give accounts of the king's royal harem. According to Jesuit writers Tirumalai Nayak had two hundred wives in his harem. Kilavan Sethupathi had forty-seven wives. Among the Nayaks Muthu Virappa Nayak III (1682-1689 A.D.) alone observed monogamy and did not have a harem.

### **Kannimar Cult**

Quoting Abdul Razah, T.V. Mahalingam says that beautiful women in the province were taken to the king's palace and kept there as the king's concubines. Those who did not like to be the concubine of the ruler or the Poligar, committed suicide or the family members resorted to 'honour killing' and elevated them as deities. This is supposed to have given rise to the prevalence of many village female deities in the Madurai region. The Kannimār deity cult is an evidence of this practice.

### **Sati**

The custom of performing sati (the wife's immolation of herself on the husband's funeral pyre) prevailed. When the ruler passed away all his wives committed sati. But pregnant women were exempted as in the case of Mangammal and her daughter-in-law Muthammal. When Raghunatha Kilavan Sethupathi died at the age of eighty in 1710 A.D. all his forty-seven wives committed sati. To commemorate the performance of sati, satikal was planted. This custom started from the Nayak period onwards. The satikal found in the Nayakdom shows that the affluent in the society too performed sati. Pumalaipatti satikal describes the lady who performed sati as kanavanai piriyādā! (one who does not leave her husband even in death) Uthappanayakkanur sati stone mentions the sati performed by Venkatammal on the death of her husband Sappānithurai, a poligar. Later, they were elevated as village deities and the temple was called Theipāinthammaṅ Kōil. The Tōṭṭiar worshipped Jackammal Bomanakāḷ who performed sati.

### **The Devadasi System**

Devadasis, who were also known as devaradiyāl, were women dedicated to temples. The term means 'servant of God'. It was a socio-religious institution. The King patronised the devadasi system by giving gifts and presents. During festive times there were dancing performances by them providing recreation and entertainment. In 1731 A.D. Vijayaranga Chokkanatha granted houses to the devaraḍiyārs of the Nellaiappar Temple. Kuthiyār were also dancers. They performed dances in the royal court. Kuthiyar Kundu near Madurai was their settlement created by General Rāmappaiyan, who was a native of that place. At a magnificent nāṭ akasāla (theatre) in Tirumalai Nayak's palace, dancing performances were held in the evening. During the latter part of the Nayak period the dēvadāsi institution lost its popularity and patronage, and they got degenerated as prostitutes. Kāḷamegam, a poet in the Nayak period, mentions the sorry state of the devadasi system. The symptoms of the decline of the devadasi system made their explicit appearance during the Nayak period. K. Sadasivan says that an inherent weakness and some extraneous factors contributed to this decline. The literature of the Nayak period throws light on the sorry state of the devadasi. The Kūlappa Nayakkan Virali Viḍu Tūtu narrates their conditions. The Uḍayār Kathai describes the devadāsi of Nellaiappar Temple in Tirunelveli and Kāsi Visvanatha Temple in Tenkasi. The minor poems of the Nayak period portray them as being mainly interested in draining the wealth of men. The Nondi Natakam enacted in this period explains the story of the fallen heroes who fell a prey to them. The Sthalapurānas attests their moral degradation. Moreover lack of patronage due to political upheavals and degeneration of the temple administration led to the decadence of the devadasi system.

### **Dress and Ornaments**

As the Nayaks were immigrants from the Telugu region, they introduced their dresses and ornaments in the Tamil country as evidenced by their sculptures and paintings. The queens wore rich

blouses and sarees. In some of the sculptures, the queens are seen wearing full-sleeved tight-fitting jackets. They combed their hair and tied it in a big chignon. They wore chandraprabha and suryaprabha jewels on their head. All of them wore Pottu, a matrimonial disc worn by Telugu women.

The women folk used to wear sarees placing the folded pleats towards the back and the plaits fastened behind. Like Brahmin ladies, the Pattunūlkārar women of Madurai tied their cloths bunching them up in the front, passing one end between their legs and tucking it into the waist behind. The ravikkai, the blouse, was worn by Brahmin women alone. Women of non-Brahmin castes followed the practice of stretching their ear lobes. Tattooing was common.

They wore ornaments according to their social status. Their earrings, which were six to seven inches long, touched their shoulders. They wore glass beads on their necks and bangles made of glass and bronze. Kāthōlai, an ear ornament worn by women. The men of the Kambala Nayakkar caste wore ear-rings. During wedding ceremony, the bride wore mangala poṭ ṭ u or thāli in gold.

### Conclusion

Probably the devadasis were found everywhere in the kingdom. But they were in abundance, around the temples at Madurai, Tanjore, Kalyarkoil, Trichy,

Ramnad, Rameswaram, Kumbakonam, Thiruvarur etc. The devaradiyars were also permitted to have married life. Records proved that a few devaradiyars become housewives after marriage. Except royal women generally were inferior to the men. During madurai Nayak period.

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# AN ENHANCED THRESHOLD VALUES AND NODE PRIORITY (TVNP) GRAPH PROCESSING SCHEME USED IN DISTRIBUTED SYSTEM ENVIRONMENT

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## Abstract

*A large graph is used to store and represent the vast volume of information. Handling such a large graph is complex to operate, and the available single machine mechanism is not sufficient. It is essential to understand its structure and process without any data loss on processing a large graph. An effective way of decomposing the large graph is partitioning or clustering. In partition, the graphs are partitioned into subgraphs known as clusters. In the system, the partitioned clusters are utilized as distributed memory clusters like Pregel. This work proposes an enhanced graph algorithm with the association of threshold values and node priority (TVNP Graph Processing Scheme). The proposed system partitioned the graph into four parts according to the reachability, such as incoming or outgoing. The initial partitions are done based on the inward and outward strategies. The final partitions are done by merging the advantages of both techniques. In the final result, refined partitions is obtained by eliminating the incompatible partitions. The proposed work contains four phases, and its executed in the Java platform. The work is processed with two real-time datasets, and its outputs are considered. The dataset taken for the experiment is good enough for dealing with large graphs addressing the existing issues. The proposed algorithm improves the overall partitioning quickly than the existing algorithms with minimum time.*

**Keywords:** *Graph Processing, Large Graph, Sub Graph, Clusters, Node Priority, and Threshold.*

## Introduction

In recent days, data generation has rapidly growth, and the primary reason for this instance is the evolution of scientific innovation. The primary data generation source is social media, government, healthcare industry, organization etc via the internet. The handling of these enormous data is too complicated for the existing conventional methods. The graph is one of the adequate representations of the data and its characteristics in a well-defined manner. Generally, graphs describe the data collected from day-to-day applications like social media, on-road networks, blogs, online purchases, scientific simulations, etc. The dynamicity of graphs involves hot events or updates of the web contents that happen all over the world [1]. The large scale graph analysis applications are the best solutions for balancing the huge dynamic workloads. Large graphs are enclosed with numerous nodes and millions of edges. The Web graphs, social networks are the most famous instances of the large graph. The graphing of

enormous data is a complicated process because of its complex data structure, massive storage, and variation in knowledge patterns. The size of the large graph is dynamic according to the time. The processing of a large graph begins with the partitions of subgraphs. The next process is connecting subgraphs (nodes) into a cluster based on the relationship availabilities. The existing partition approaches are incremental partition, multilevel partitioning, spectral bisection, and so on. An efficient graph partitioning method is achieved by answering the below questions;

- Need to analyze the threshold value of partition for the given graph.
- What is the connection basis between the subgraphs?

Graph processing is an application used to distinguish and analyze big data. Graph analytics are classified into two types as Online graph analytics (or graph querying) and Offline graph analytics (or batch processing). Online graph analytics is

processing a small subset of the graph, which needs quick response time-offline graph analytics process iterative computations that require high throughput. Graph processing on a single machine is not sufficient, and the raw data do not represent graphs. It consists of various steps like process, transform, filter, data source, distribution, and storage. The difficulties in effective graph processing are proper distribution, computational load balance, and computational overhead. This defines the need for advanced in the large graph processing systems. In recent years, the lack of an effective graph processing system has gained a lot of attention among researchers. As a result, several existing works have evolved in recent years, but the complete need is still fulfilling with available mechanisms. Systems like Pregel [2] and GraphChi [3] are the existing distributed memory clusters mechanism. The performance of graph frameworks are measures based on power usages. WattWatcher [4] is one of the popular tools to evaluate workloads.



**Figure 1 A Sample Social Media Graph**

The above figure 1 shows the graphing process of popular social media Facebook. The Facebook page consists of several entities like users, posts, friends, and groups. The post pages are enclosed with tags, text, images, audios, and videos. People may comment, like, or dislike the user's post, and the Facebook user only can comment on the posts. Posts are associated with the locations, and the graph visualizes all the stated information or the same types of information. The graph is structured based on the

objects and their relationship, and figure 1 is the best example of that kind.

The main aim of this works is to discuss the graph processing framework needs and its working mechanism. For this, several works are concerned with its processing nature. The existing studies are valuable for consulting with the small graph but fail to describe its performances on large graphs. This research's final scope is to contribute the best graph processing mechanism that overcoming the existing drawbacks. This paper is organized as follows: section 1 contains the introduction, section 2 described the related works, section 3 with the proposed framework, section 4 contains the result and discussion, and finally, the section contains the conclusion.

### Related Works

Several works have evolved in describing the characteristics of graph processing and numerous algorithm improving its working performances. In this section, several graph processing related works with issues addressed and proposed solutions are discussed below;

J.Chinna et al. [5] describe that the graph partition can be effectively processed by optimizing the hardware or software standpoint. In this work, the author addressed various graph applications' power behavior and compared their performance, energy cost, and scalability. As a result, the author contributed the scalability impacts in the graph processing.

Lee and Liu et al. [6] proposed VB-Partitioner, a distributed data partitioning model. The main objective of this work is to give maximum importance to the queries in clouds. The vertex block grouping is processed by enabling the connection between the vertex. In this work, the Hadoop Distributed file system is the prototype to analyze big data using graph processing.

E. G. Boman et al. [7] proposed the Cartesian Vertex-Cuts mechanism, and it uses the 1D block partitioning policy for partition. The graphs are determined as adjacency matrices, and its partitions are done using two choices, such as the edges and

nominating a master node. Here the hosts of the nodes created the master node.

S. Salihoglu et al. [8] developed a multilevel label propagation (MLP) method for partitioning graphs. In this work, the observation is conducted on real-time and synthetic graphs. The proposed works partitioning time is described as several hours.

Huang et al. [9] developed a light-weight customizable partition framework for Leopard. The proposed framework is a dynamic graph that effectively detects replication and maximizes efficiency. Kyrola et al [10] implemented the GraphChi approach for maximizing the iteration speed.

Yu Zhang et al. [11] proposed a structure-centric partitioning algorithm for achieving the fault-tolerant and access locality. The proposed method process graph partitions using a priority strategy for scheduling. The proposed method shows effective results in scalability, cache miss rate, and IO resource overheads.

Chen et al. [12] developed a novel framework using the vertex-oriented graph partitioning method. This system is mainly developed for the cloud environment. The experimental work is carried out in cloud environments such as Amazon and EC2 using cluster mechanisms with graphs over 100GB.

Zhang et al. [13] proposed a topology refactorization-based graph partitioning method known as TopoX. TopoX is mainly developed to address the significant graph processing issues such as load imbalance and increased communication cost. The proposed work is compared with the current graph processing prototype PowerLyra. The PowerLyra achieves 78% of minimal overhead, whereas the performance achieved by the TopoX is far better than the PowerLyra with minimum memory consumptions.

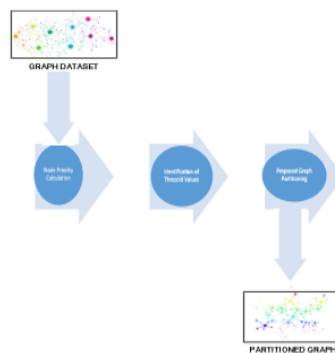
Chen et al. [14] proposed PowerLyra, which provides a centralized computation environment for high degree and low degree vertices. The proposed PowerLyra is a new hybrid cut partition algorithm that addressed existing Pregel [2] load imbalance for high degree and GraphX increase on memory and

communication costs. The new PowerLyra is a combined edge-cut and vertex-cut; both are well defined for their simplification and competences.

Li et al. [15] proposed an adaptive partitioning algorithm using Spark and GraphLab. In comparison to the existing parallel graph processing algorithms, GraphA achieves excellence in partitioning with minimum memory consumption, time consumption, ingress time, and computational cost.

### Proposed Mechanism

The proposed TVNP Graph Processing Scheme consists of three phases: calculating the nodes' priority, identifying the threshold values, and threshold based partitioning. Below Figure 2 describes the workflow of the proposed efficient threshold based partitioning algorithm



**Figure 2 Proposed Workflow**

### Node Priority Estimation

In this research work, the graph dataset is taken, and the node priority is calculated based on the two fields such as "From node" and "To node." The node with multiple links or out links or both is taken as the graph's influential reachable nodes. In graph processing, the essential subjects are in-degrees and out-degrees of the nodes. The proposed system's node priority is executed based on the number of in-links and out links. Here  $G = (I, K)$  is the directed graph with the set vertices  $I = \{I_1, I_2, \dots, I_n\}$  and the set of edges as  $E = \{k_{ij}, \dots, k_{mn}\}$ . The edge  $k_{ij}$  is the ordered pair of the vertices  $(I_i, I_j)$ . The  $\text{deg}^+(I_i)$  and

deg-(Ii) represent the degree and degree of any vertex Ii.

The vertex/node's in degree is the number of vertex/node's entering edges. The out-degree is described by the number of edges initiated from the vertex/node. The in-degree and out-degree are expressed as follows;

$$\text{deg}^+(U_i) = \sum_j k_{ij} \quad (1)$$

$$\text{deg}^-(U_i) = \sum_j k_{ji} \quad (2)$$

The node priorities are computed into two different categories such as INP – In degree-based Node Priority and ONP – Out degree-based Node Priority. Both priority levels define the node's reachability in the graphs. The INP and ONP are expressed as below;

$$\text{INP}(U_n) = \alpha(\text{deg}^+(U_n)) + \beta(\text{deg}^-(U_n)) \quad (3)$$

$$\text{ONP}(U_n) = \beta(\text{deg}^+(U_n)) + \alpha(\text{deg}^-(U_n)) \quad (4)$$

Where

I.  $\alpha$  and  $\beta$  are fractions.  $0 > \alpha < 1.0 > \beta < 1$

II.  $\alpha$  should be greater than  $\beta$ .  $\alpha > \beta$

III. sum of  $\alpha$  and  $\beta$  should be equal to 1.  $\alpha + \beta = 1$

### Analyzing the Threshold Values

The node priority values determine the threshold values for graph partitioning the datasets. Based on the in-degree and out-degree priorities, the partition is of four types such as Low priority (LP), Medium priority (MP), High priority (HP), and Very high priority (VHP). Each partition is assigned with weights, which decides the standards for forming partitions.

$$T_{in} = w_1 * \max \text{INP} + w_2 * \max \text{INP} + w_3 * \max \text{INP} \quad (5)$$

$$T_{out} = w_1 * \max \text{ONP} + w_2 * \max \text{ONP} + w_3 * \max \text{ONP} \quad (6)$$

### Splitting According to the Threshold Values

Two boundaries are set on the four partitioned levels, such as upper and lower boundaries, based on the threshold value and assigned weights. The partitions according to its in-degree priorities and threshold values described below;

$$w_1 * T_{in} > \text{VHP}_{in} \leq T_{in} \quad (7)$$

$$w_2 * T_{in} > \text{HP}_{in} \leq w_1 * T_{in} \quad (8)$$

$$w_3 * T_{in} > \text{MP}_{in} \leq w_2 * T_{in} \quad (9)$$

$$0 > \text{LP}_{in} \leq w_3 * T_{in} \quad (10)$$

The out-degree priorities and threshold values based priorities are described below;

$$w_1 * T_{out} > \text{VHP}_{out} \leq T_{out} \quad (11)$$

$$w_2 * T_{out} > \text{HP}_{out} \leq w_1 * T_{out} \quad (12)$$

$$w_3 * T_{out} > \text{MP}_{out} \leq w_2 * T_{out} \quad (13)$$

$$0 > \text{LP}_{out} \leq w_3 * T_{out} \quad (14)$$

As expressed above, graph partitions are made into eight groups. From which analysis is done to obtain the final partitions.

### Graph partition with Threshold Values

In this phase, the in-degree priorities and out-degree priorities are considered to generate the final partitions. A comparison work is carried out between the in-degree priorities and out-degree priorities. On the refining partitions stage, the lesser priority level vertices are instantly upgraded into the higher priority levels. In the graph dataset, threshold-based partitioning is done into four categories: four concerning in-degree priorities and four concerning the out-degree priorities. Consider Ii as vertex and assigned with the medium priority such as with in degree priorities and upgraded into Higher priority partition based on the out-degree priorities. The higher priority level's vertex Ii can be upgraded into the higher priority level partition of any phase. From the eight partitions, a final set of four partitions is derived in this phase.

### TVNP Graph Processing Scheme

The proposed TVNP Graph Processing Scheme is described below. Initially, the graph dataset undergoes the proposed algorithmic design with two attributes: "from node" and "to node". Process the proposed partitioning algorithm with the graph set. The algorithm does not support the graph data in the form of an adjacency matrix. Final obtained output contains four partitions of nodes.

**Algorithm:** TVNP (Threshold values – Node Priority) Graph Processing Scheme

**Input:** Graph dataset G

**Output:** Partitioned Graph

1. The in-degree  $deg^+(I_n)$  and out-degree  $deg^-(I_n)$  is applied to all the nodes.
2. The corresponding node priorities are estimated according to the in degrees  $INP(I_n)$  and out degrees  $ONP(I_n)$ .
3. Optimally analyzing the weights ( $w_1, w_2, w_3$ )
4. Threshold value detection, according to the  $INP$  and  $ONP$ .
5. Graph data partition into initial partitions
6. Examining the initial partitions
  - a. Evaluation of in-degree and out-degree partitions
  - b. Investigating the refining suitability
  - c. The up-gradation of the possible node into the next immediate higher partition priority level
  - d. Linking of partition if required
7. Final partitions **VHP, HP, MP, LP**.

### Final Partitions

#### Result and Discussions

The experimental work is conducted with the dataset taken from Stanford Large Network Dataset Collection. For implementation, two datasets are attempted with the proposed partitioning algorithm [16 – 20].

#### Dataset Description

The amazon0601.txt.gz and Wiki-talk.txt.gz are the two datasets taken for observation purposes. The amazon 0601. txt.gz is taken from the sneaking the Amazon website. This dataset encloses with similar

product purchase details from the Amazon customers. The second one, the Wiki-talk.txt.gz dataset, is taken from Wikipedia. Every registered user is provided with a page known as the talk page; using this, the registered can edit the Wikipedia articles. The dataset is constructed from the page edit history till of January 2008. The below Table1 describes the information about the datasets.

**Table 1 Data set Details**

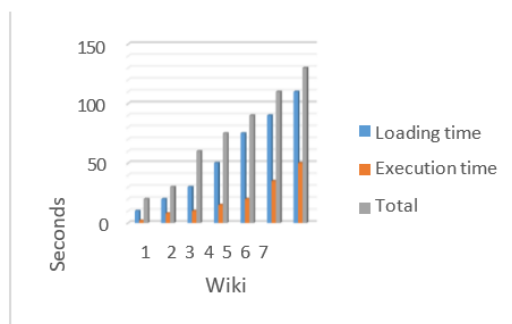
Name	Type	Nodes	Edges	Size
amazon0601	Directed	403,394	3,387,388	45.6 MB
wiki-Talk	Directed	2,394,385	5,021,410	63.3 MB

#### Research Outcomes

The proposed mechanism is executed in the is Intel Core-i7 processor 7th generation. The clock speed is up to 4.50 GHz, and the memory capacity is 8M Cache. The obtained results with the parameters are graphical representation as mentioned below;



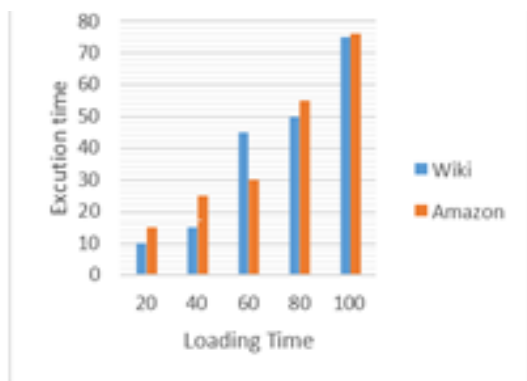
**Figure 3 Time is taken (in seconds) for partitioning the Amazon Dataset**



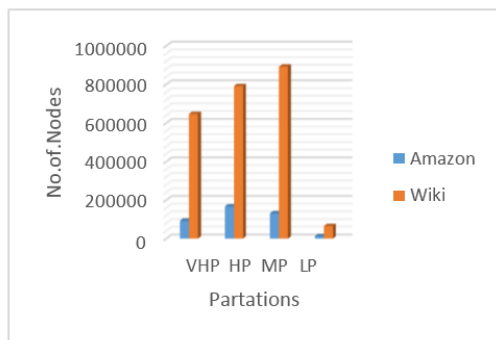
**Figure 4 Time is Taken (in seconds) for partitioning the Wiki Dataset**



The above Figure 3 & 4 illustrates the performance obtained with amazon and wiki datasets. The evaluation metrics consider are loading time, execution time, and total. The partitioning time is calculated in the aspects of seconds. The X-axis represents the datasets implemented, such as Amazon and Wiki. The Y-axis determines the time calculation in seconds.



**Figure 5 Percentage of Time Taken for Partitioning the Datasets**



**Figure 6 Stacked Area Chart for the Datasets Chosen**

Figure 5 illustrates the comparison of time taken between the Wiki and Amazon. The comparison is based on execution time and loading time. The X-axis determines the loading time, and the Y-axis determines the execution time. The observation is recorded with an increment of 20 seconds gradually. Figure 6 illustrates the priority values achieved by the Amazon and Wiki datasets. The partition values are categorized into very high priority (VHP), high

priority (HP), medium priority (MP), and low priority (LP). The X-axis denotes the partition values, and the Y-axis determines the number of nodes taken for execution, which is increased gradually in terms of 200000 each.

## Conclusion

The research work is computed with the proposed systems on the amazon and wiki datasets. Initially, the node priorities are identified based on the incoming and outgoing link. Based on the obtained values, the threshold for partitioning is measured. The proposed partition is done with four phases on the graph dataset. The proposed threshold based partitioning algorithm executes the four priority classes, such as VHP, HP, MP, and LP. This is partial research on energy-efficient graph processing, and further investigation can be carried out to minimize the energy consumption on the graph processing.

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## IMPORTANT VAISHNAVA TEMPLES AROUND MADURAI

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### Abstract

*In India, a region's temple is frequently the focal point of its history and culture. This is especially true in South India, where the temple has had a significant impact on people's religious and social and cultural lives in addition to serving as the centre of their religious life. Nonetheless, Madurai is one of the few cities that has had a continuous history that dates back to the prehistoric era. In Madurai, Saivism and Vaishnavism flourished. The monarchs of Pandya and Nayak generally practiced religious tolerance. Kings Pandya and Nayak encouraged Vaisnavism and constructed numerous temples in its honors. In and around Madurai, there are a large number of Vaishnava shrines. Kudal Alagar, Tallakulam Prasanna Venkatachalapathy, Alagarmalai, Thirumohur, and Aanaimalai Narasinga Perumal temples are significant temples in this regard. The village of Narasingam is located to the Aanaimalai Narasinga Perumal temple. Although the Thirumohur temple is small in size, it is an old shrine that dates to the fourteenth century and has remnants of earlier constructions. Kudal Alagar temple is one of the 47th sthalas the 108 Thirupathies and one of the well-known padalsthalam. Situated right in the middle of Madurai. The Prasanna Venkatachalapati temple dates back four centuries. In Tamil Nadu, there are 108 Vaishnavite temples, including Alagarkoil. It is located directly beneath the southernmost tip of the hill known as Tirumaliruncolaimalai or Alagarmalai. People can get the necessary spiritual benefits from temples. These Vaishnava temples are hubs of intellectual, artistic, social, and commercial activity.*

**Keywords:** *Vaishnavism, Temples, Religion.*

### Introduction

In India, a region's temple is frequently the focal point of its history and culture. This is especially true in South India, where the temple has had a significant impact on people's religious and social and cultural lives in addition to serving as the centre of their religious life. Nonetheless, Madurai is one of the few cities that has had a continuous history that dates back to the prehistoric era. In Madurai, Saivism and Vaishnavism flourished. The monarchs of Pandya and Nayak generally practiced religious tolerance. Kings Pandya and Nayak encouraged Vaisnavism and constructed numerous temples in its honors. In and around Madurai, there are a large number of Vaishnava shrines. Kudal Alagar, Tallakulam Prasanna Venkatachalapathy, Alagarmalai, Thirumohur, and Aanaimalai Narasinga Perumal temples are significant temples in this regard. The village of Narasingam is located to the

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that dates to the fourteenth century and has remnants of earlier constructions. Kudal Alagar temple is one of the 47th sthalas the 108 Thirupathies and one of the well-known padalsthalam. Situated right in the middle of Madurai. The Prasanna Venkatachalapati temple dates back four centuries. In Tamil Nadu, there are 108 Vaishnavite temples, including Alagarkoil. It is located directly beneath the southernmost tip of the hill known as Tirumaliruncolaimalai or Alagarmalai. People can get the necessary spiritual benefits from temples. These Vaishnava temples are hubs of intellectual, artistic, social, and commercial activity.

### Kudal Alagar Temple under Pandiyas

Kudal Alagar temple is the Vaishnava temple in Madurai city. The names "Koodal" and "Alavoi" were also used to refer to Madurai back then. In the "Pasurams" of the great Alvarss, this holy place is referred to as "Thirukudal". The majority of Pandayan monarchs extolled Tirumal, bestowed upon the numerous grants, and erected numerous temples in her honour. Among the 108 Tirupathies, the temple in

Kudal Alagar is the 47th sthala. The main god of the temple is Lord Vishnu named Koodalalagar perumal. All the twelve vaishnavite Alvars in praise of god in their sacred book of poems called "Nalayira Divya Prabandam". It is said to have been constructed during the presangam Age. The chief deity of the temple is Kudal Alagar. His companions are Sridevi and Bhudevi. The Utsava is named as Vyuha Sundararaja Perumal with his consorts Sridevi and Bhudevi.

The temple's moolavar is around six feet tall and is seated with his back to the east. Vyuga Sundararajar and Vaikundanathar are the other names for the god. The location of Maduraivalli Thayar Shrine is south of Garbhagraha. Seated and facing east are the Goddesses. The location of Sri Andal Shrine is north of Swamy Shrine. There are ardhmandapa and mahamandapa unique to the Andal Shrine. The grabhagriha contains a standing icon of Andal. Beautiful sculptures adorn the pillars of the Ardhmandapa and Mahamandapa.

The Vimana contains of three forms here, sitting (Amarandhakolam), Standing (Nindra Kolam) and lying (Kidandha Kolam). There are two tiers in the artistic Ashtanga Vimana over the sanctum Sanctorum in the First tier there is an imposing image the god in a standing posture. He is called Sri Suryanarayanamoorthy. In the Second tier the Lord's image has been carved out in a graceful reclining pose. He is called Kshriabadhanathar. Each of these two tiers on a nominal payment. Sixteen stone pillars are vertical and supportive the Ardhmandapa. These pillars have stone sculptures. This mandapa has two arrivals one is the south side entrance and other one is the north side entrance. The Nayaks of Madurai renovated and granted a lot of donations to this temple. They might have been renovated the famous Astanka Vimana of Kudal Alagar temple.

### **Alagarkoil**

In Tamil Nadu, there are 108 Vaishnavite temples, including Alagarkoil. It is located directly beneath the southernmost tip of the hill known as Tirumaliruncolimalai or Alagarmalai. This is roughly 15 kilometres long and goes east to west.

About 12 kilometres to the northeast of Madurai is Alagarmalai. The principal deity of the temple is identified as Sundaraja Perumal, Vishnu, Tirumal, and Kallazhagar. Vaishnavite works of famous saints such as Periyalwar, Peyalwar, Bhoothathalwar, Nammalwar, Andal and Thirumangai Alwar. There are 123 songs about this hill and its chief deity in the Vaishnavite scripture known as Nalayiradivya Pabandhams. The main temple is situated in the inner fort. The inner-wall is known as "Iraniyan Fort" and the outer wall is called Alagapurei Fort. The grabagraha was renovated by Sundara Pandiyan in the 13th century AD.

The main entrance to the temple is the Padinettambadivasal which is on the eastern wall of the third prakaram. This is a seven storeyed gopuram with a stone base two storeys high. The presiding deity of this gopuram is known as Pandinettambadi Karuppannaswami and next to the Kallalagar himself is the most venerated deity of the place. There is no idol to Karuppannaswami. The two doors of the gopuram are the only symbols used for worshipping him. A smaller doorway to the north of the Padinettambadivasal known as the vandi vassal is now used by the pilgrims. The largest of these mandapams is known as the Kalyana Mandapam with its many monolithic sculptured pillars. The pillars are carved with figures of yalis, iconographic images and portraits of royal personages. Some of these sculptures are those of Narasimhavatar, Lakshmi Varahar, Krishnar, Garudaruda Mahavishnu, Anjaneyar, Trivikramar, Rati and Manmatan.

On the south side of this prakaram which is known as the Thirumalai Nayakarprakaram are a number of old shrines dating more or less about the same period as the base of the Thondaman Gopuram. The first shrine is the Alvar Sannidhi, the next one the Thayar Sannidhi with the Sudarsana shrine next to it. In the corner is the palliyarai. Four portrait statues are in front of the Alvar shrine. The mulavar in the sanctum is called Sri Paramaswami. He is in the standing posture with Sri Devi and Bhudevi on either side on the same pitham. The utsavar is called Sri Sundararajar or Alagar. The Rayagopuram is on

the same south exterior wall as the Hicranyan gate. Between the south wall and that of the temple is the Vasantha Mandapam which is another old structure which may be dated about the 14th or 15th centuries. This mandapam is remarkable for its ceiling paintings relating to the Ramayanam and other Vaishnava episodes. The Vijayanagara viceroys and the Nayakar rulers also extended their liberal patronage to the temple.

### **Thirumohur Temple**

One of the 108 Vaishnava sthalas is the temple in Thirumohur, which is six miles northeast of Madurai. Manavalamuni, Nammalvar, and Thirumangai Alvar have all sung in this place in worship of the god. The shrine's goddess is also appropriately known as Maharavalli Thayar. Here, the deity is known as Kalamegha Perumal. Although the Thirumohur temple is small in size, it is an old shrine that dates to the fourteenth century and has remnants of earlier buildings. The Garuda Mandapam, which is reached by the Kambatthadi Mandapam, has exquisitely carved pillars featuring images of Ramar alongside Sitha, Lakshmana, Rati, and Manmathan. There are some elaborate Vijayanagara-style pillars in the Mahamandapam.

The Kalameghapperumal sanctum is almost a square structure. Architecturally the temple may be stated to be about the middle of the 16th c. A.D. The shrine seems to be an ancient structure. A huge Sudarsanar picture sits on a square rock that is higher than four feet. Sri Sudarsanar is carved on the front with sixteen hands encircling a circle that is filled with several tantric symbols. Numerous figurines are carved into the square's varied edges on its smooth surface. The back of the Sudarsanar is similarly carved, but in the centre is a figure of Yoga-Narasimhar. The figures of Sudarsanar and Narasimhar are somewhat mutilated, but there can be no doubt that this is a unique piece of iconography which should find a more secure place than the ground on which it stands next to the wall of the inner prakaram. There are a number of mediaeval inscriptions on the walls of the temple.

### **Narasinga Perumal Temple**

These two temples are adjacent to each other at Aanaimalai (a hill that looks like an elephant in a sitting posture). At the foot of this hill is situated a village called Narasingam. This place is at a distance of about 8 KMs from Madurai in the northeast. A cave temple, where pujas and offerings are performed now also, for Narasima exists at the bottom of the hill. The presiding deity of the temple Lord Narasima is facing west. At the entrance to the temple one may find a sanctum sanctorum for NarasingavalliThayar facing south. After this, one may find a mandapa for Garuda while entering the Sannathi of Lord NarasingaPerumal. Adjacent to this is a Mahamandapa, which has two big pillars with simhas at the bottom and also other small pillars. After this Mahamandapa, a small mandapa exists. Later Pandyas and rulers of Vijayanagar period developed all these structures. Sanctum Sanctorum with Muhamandapa only had been excavated during the early Pandya period. On the north side of the temple, there exists a Lotus tank.

During the third regnal year (AD 770) of the king, Jatila Parantaka, Maran Kari, the minister in his court, started the excavation of the above temple. However, as the minister could not get the temple completed, his younger brother MaranEinan alias Pandimangalavisaiyariyan, who succeeded him as minister, subsequently built the mandapa in front and performed the consecration ceremony. There are two inscriptions on the rocks at the left and right side of the Muhamandapa. These two inscriptions are historical in nature, in that it helps to ascertain the period of the early Pandyas.

The Yoga Narasima idol at the temple is six feet high, carved out of the hill itself. The two lower hands rest on his knees as in a sitting yoga posture. In right upper hand, he holds chakra, while chank is held in the left hand. His face is adorned with hair as in a lion. This is a rare feature of the early Pandyas.

### **Prasanna Venkatachalapathy Thallakulam**

King Thirumalai Naicker built the Vaishnavite temple Prasanna Venkatachalapathy. The management of Azhagar Koil's Kallalagar Temple in the Madurai

district is in charge of this temple. 'Poodevi' and 'Sridevi' are the goddesses at this temple. Srinivasar is the name of Utsavar. 'Well water' is the Theertha of this temple. It is discovered that Hanuman is positioned in the "anger mode," with Chakkaraththazhvaar in the opposite position. Prasanna Venkatachalapathy, the principal deity, is oriented towards the south. The primary deity in Vaishnavite temples typically faces east. Perumal is the only Vaishnava temple facing south. Tallakulam Perumal Temple is not among the 108 Divya Desams but is hailed as one of the notable ancient temples. This temple is related to Madurai Kallaghar temple. The unique feature of this temple is that it is filled with water through the canal which was connected to Thirumukkulam and Vaigai. Vaikunda Ekadasi, Ani Puranam, Puratasi Brahmotsavam along with Chitrai Festival are celebrated in this temple with much fanfare. It is a long-held belief that those who are unable to travel to Tirupati from Madurai will get the benefits of visiting Tirupati Venkatajalapati in person by worshiping this Perumala.

### **Mathana Gopalaswamy Temple**

The Arulmigu Madana Gopala Swamy Temple is located in Madurai on Melamasi Street. It is precisely situated on the eastern side of Immayil Nanmai Tharuvar Koil, near the Periyar bus stop.

Madana Gopala Swamy is the principal deity here, along with Bama and Rukmini. In the temple, there is a goddess shrine dedicated to Madhuravalli Thayar. The plantain tree is the temple's primary vrishksha.

Legend has it that Lord Shiva became Sundara Pandiyan and rose to the Madurai throne following his marriage to Meenakshi. Then, his body temperature caused him to enter a deep penance and

get enveloped in flames. The earth began to collapse, and devas came near Lord Vishnu. Then Vishnu tries to stop Lord Shiva, but in vain. Then Vishnu understands divine music from his flute can calm down Lord Shiva. Hence, he becomes Madana Gopalan and starts playing his flute and Lord Shiva immediately comes out of his penance. It is widely believed that those who want to excel as musicians should visit this temple in order to receive blessings.

### **Conclusion**

This Vaishnava temples make a significant contribution to culture and society, whether directly or indirectly. It demonstrates the proliferation of temple building and sculpture as well as the development of religious cult and ideas. Many festivals of these Vaishnava temple have an ancient tradition behind them. From the king's rule till today, annual festival have been observed continuously throughout the year. Festivals are primarily religious in nature, but the events that surround them often have more political, economic, and social significance.

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## GENDERED ROLES AND SOCIETAL DYNAMICS IN ARUNDHATI ROY'S THE GOD OF SMALL THINGS AND NGŪGĨWATHIONGÓ'S DEVIL ON THE CROSS

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### Abstract

*The God of Small Things by Arundhati Roy and Devil on the Cross by NgugiwaThiong'o both novels highlight how colonized women's roles in postcolonial African and Indian literature are always evolving. In Detained: A Writer's Prison Diary, NgugiwaThiong'o states, "When I'm writing a book, I love to hear the voices of the people. The lively voices of attractive women are what I need their touches, their sighs, their tears, and their laughter" (8–9). Arundhati Roy's protagonists in The God of Small Things fight against allowing themselves to be bound by the laws and regulations set out by a society that is very conservative. The voices and decisions made by women to improve the world in which they and others live are expressed in the works of both authors. The purpose of the paper is to illustrate the predicament of women fighting against an exploitative and restrictive society while also symbolizing the emergence of a new one.*

**Keywords:** *Gender, Dominance, Subjugation, Oppression, Freedom.*

### Introduction

In non-European continents, British colonies were just new communities settling for better living conditions. Nonetheless, over time, the settlers established their racial superiority over non-White peoples, imposed their history, culture, language, customs, and beliefs, and eventually persuaded the colonized to view them as universal, normative, and superior to their own local indigenous culture. This led to the colonized developing a strong sense of inferiority, encroaching on their colonies for economic gain, and causing the non-White colonized to feel divided and alienated from their own culture. In the words of Peter Barry, "For centuries the European colonizing power will have devalued the nation's past, seeing its precolonial era as a pre-civilized limbo, or even as a historical void (Barry 192). Derek Walcott satirizes the entire notion of colonialism in his poem 'New World' as:

"Adam has an idea.

He and the snake would share

The loss of Eden for a profit.

So both made the New World. And it looked good" (qtd. in Breslin 114).

In opposition to these Occidental inclinations towards colonization, dominance, marginalization, and subordination, postcolonial authors saw it as their duty to highlight the suffering of the colonized to the world. The study of postcolonial literature delves into the many ways that race, gender, class, ethnicity, and sexual orientation shape power dynamics, identities, and subjectivities. According to Nayar, post-colonial literature aims to identify methods for non-European (Asian, African, and South American) literatures and cultures to reject, reclaim, and reverse their "own" pre-colonial pasts, as well as to confront the ways in which these cultures and literatures have been marginalized as a result of colonial control (1).

The range of roles that women play in literature is often rather broad. A formidable female figure has emerged within the stormy colonial age; rather, a new breed of feminine strength has sprung from the ashes of depressing literary damsels. Remarkable and extraordinarily strong-willed are the two fictitious characters that symbolize South Africa's Wariinga in NgugiwaThiong'o's *Devil on the Cross* and Rahel in Arundhati Roy's *The God of Small Things*. This study investigates the choices taken by women in the

face of oppression to create a new culture, while also examining their voices against male chauvinism and conventional social dynamics. Ranga Rao writes, "Roy's book is the only one I can think among Indian novels in English which can be comprehensively described as a protest novel. It is all about atrocities against minorities, Small Things: children and youth, women and untouchables" (Rao 13).

As Thiong'o writes in *Detained: A Writer's Prison Diary*, "A writer needs people around him. ... For me, in writing a novel, I love to hear the voices of the people... I need the vibrant voices of beautiful women: their touch, their sighs, their tears, their laughter" (8-9). The Kenyan author Thiong'o highlights the significant role that female characters have had in his work throughout the years with these complimentary remarks.

The heartbreaking tale of Wariinga, a little girl whose parents are taken into custody while she is only two years old, is shown in *Devil on the Cross*. After that, her aunt takes care of her, but her uncle, together with the elderly wealthy man Gitahi from Ngorika, ends up becoming Wariinga's executioner and defiler. She becomes pregnant when this elderly man gets her pregnant, which causes her to quit school and lose the opportunity to pursue her sole means of paying back the corrupt society. Early on, Wariinga begins to reflect on her tragedy, which traumatizes her and causes her to consider suicide. However, Wariinga agrees to continue her education and pick up typewriting and shorthand in order to support herself. Her move to Nairobi in search of a better life was not successful. However, Kihara, her employer, made a sexual proposition to her, which was the only way to save her work. She is rejected because she won't provide sex, and her partner John Kimwana leaves her rather than console her. As a result, the heroine is overcome by a string of hardships and makes her second attempt at suicide. Fortunately, she is saved by a fantastic character, as this quotes shows: "Suddenly Wariinga heard a voice within her: why are you trying to kill yourself again? Who instructed you that your work on

earth is finished? Who has told you that your time is up? (Devil on the Cross 12).

Wariinga takes on the role of community spokeswoman and, as a result, sharpens her forces against forces of evil and demonstrates her concern for the masses above her personal pleasure and satisfaction. She is motivated by the lessons learned from the past and present experience, the various trials encountered by Wangarii, Muturi, Mwireri, and all her other duplications. She boldly makes the decision to stop being in love and being betrothed to the old rich man's son, Gatuiria, and instead dedicate herself to fighting for women's rights.

Ngugi utilizes Wariinga's experience, which is typical for many young Kenyan women. *Devil on the Cross* makes it evident that women are persecuted and exploited on two fronts: "There is no boss who wants a girl with independent thoughts, no boss is happy with a secretary who questions things, or opens her eyes to see what is being done to her" (*Devil on the Cross*, 206). People are employed based on what they can provide, not on their qualifications or qualities, as Ngugi portrays it. When it comes to women looking for work, the situation is worse. The only thing the latter can provide is their sex. The story emphasizes that women's thighs serve as the tables on which contracts are written, and that the Modern Bar and Lodging has evolved into the primary employment agency for females. The writer regrets, "Modern problems are solved with the aid of thigh" (*Devil on the Cross*, 52).

According to Boehmer, Ngugi has created heroines of enormous, if not impossible, stature by giving his principal female characters the dignity of ages or an almost bionic power: either fierce, gun-toting revolutionaries, or magnificent mothers of a future Kenya (42). Gachikia claims that Wariinga serves as an inspiration in a conflict that is mostly defined and carried out by males. Despite giving up everything, she does not give up her femininity, her silky hair, or her attractive figure (30). She is assertive, courageous, and unwavering in her resolve to change society.



The God of Small Things tells the tale of a family that has been destroyed by life's injustices. The "two-egg" twins of their mother Ammu, Estha and Rahel, are the primary protagonists. After a disastrous marriage to Larry Mc Caslin, Rahel returns to Ayemenem at the beginning of the story to visit her twin brother Estha, who was sent to his father after Sophie Mol's burial and has now, twenty-three years later, returned to their hometown. The twins, Rahel and Estha, shared a home with their mother Ammu, who had divorced, their blind maternal grandmother Mammachy, their maternal uncle Chacko, who assisted his mother in managing their pickle business in Paradise, and Baby Kochamma, the youngest sister of their maternal grandpa. Chacko had a daughter named Sophie Mol who drowned later in life. Margaret, an English woman, was his wife; she eventually divorced him and wed Joe. The conventional society prescribed who should love whom, making it both conservative and dictatorial. The writer fiercely disagrees with this notion.

A woman's innate right to love the man of her choosing should not be violated in the name of her religion, caste, race, or social status. In this way, the novel might be seen as a post-colonial work as the goal of post-colonialism is to overthrow the established power system. Roy wants to challenge this long-standing gendered roles in order to protect a woman's freedom to wed the man of her choosing. In Arundhati Roy's novel *The God of Small Things*, Rahel stands in for a totally different kind of powerful woman. Though Warangii has a strong will when acting, Rahel's extraordinary intelligence is evident from an early age. Rahel has the ability to see across boundaries associated with gender, postcolonial oppression, and family. Rahel may live two lives - one entirely within her brain and the other as a misfortunate young Indian lady with a deteriorating family. Rahel tries to think outside the box and fight the odds, but her twin brother Estha just accepts the destiny that has been predetermined for him. She never views herself as a victim and has a strong sense of independence.

Rahel has many characteristics with her mother Ammu. Ammu, too, refused to accept the life that was thrust upon her; instead, she set out on a quest with the Untouchable Velutha, the man she loved, that demanded more difficulties than she could have ever imagined. Ammu chose the path he had been led on in order to remain with him, even though her beloved had already been subjected to oppression; this decision ultimately led to her death. Rahel was able to look outside the limitations of mortality, circumstance, and destiny from an early age, and her strong-willed mother served as an example for her independent daughter. Like her mother, Rahel begins connections that naturally bring out her feminine traits because she is eager to find the good in others. She has grown to be a product of post colonialism, yet she chooses to reject its influence on who she is, defying the movement as a whole.

While trying to give a historical perspective to Estha and Raphael, Chacko says: "We're Prisoners of War'. 'Our dreams have been doctored. We belong nowhere. We sail unanchored on troubled seas. We may never be allowed ashore. Our sorrows will never be sad enough. Our joys never happy enough. Our dreams never big enough. Our lives never important enough to matter'" (*The God of Small Things*, 53). Roy's writings centered on the real representation of the real life experiences and struggles of an individual. According to Mullaney, *The God of Small Things* portrays the colonial element of dominant order which structures each of their individual life stories and their relation to the larger tessellations, familial, and cultural histories (11).

Roy has shown the never-ending story of Indian women fighting to break free from the grip of the country's patriarchal culture. She recounts several stories of women's unfairness and tyranny in India's andocentric and patriarchal culture, both inside and outside of their homes (Chandra, 152). Upon thorough examination, the two female figures make repeated assertions about who they are. While Rahel, an ultra-modern girl, manages to escape the grasp of such conventional attitudes and survives in both Delhi and New York despite all the hardships and

oppression imposed by male dominant society, Wariinga must contend with life's inflexible racial based patriarchal social norms in Kenya. According to Kulkarni, "Probably with lost hopes and unsatisfied desires, Rahel represents the contemporary women representing the western land-culturally barren, morally empty, socially inimical" (22). The basis for the construction, establishment, and legitimization of gender inequality is a woman's body, sex, and gender. The God of big things takes advantage of women. "Wife is but a slave who can be driven out of the house at his will" (The God of Small Things, 181).

Both authors serve as spokespersons for the doomed class by viciously criticizing the vicious class that condemns the underprivileged to a life of suffering and hopelessness. As a result, the writers make an effort to free them from the bonds of pessimism and despair. Indian and African women may fight against both national and local injustices by following the example set by Roy and Thiong'o. The predicament of Indian and African women as lower class and racial subalterns is depicted in both works. Roy and Thiong'o observe the opposition against caste, class, and gender discrimination as well as the instigation of anti-colonial movements. Both books use a tale framework that gives them strength, power, and the capacity to affect readers while representing society and cultural customs. Roy and Thiong'o used two distinct approaches to tell their experiences. Despite their differences, the tales have elements in common such as masculine chauvinism, moral and familial betrayal, economic conflict, and social difficulties. Both books make clear that women are sexually abused and held as slaves by males. Rahel and Wariinga struggle much to change into new ladies in each of the stories. They must go through several trials in order to accomplish their aim.

The article detailed how Ngugi and Roy mustered the bravery to declare that the "devil" exists in society and to call on the exploited and downtrodden people, especially women and children, to refuse to accept their lot in life and instead chose

to speak out against injustice. They discover that it is their responsibility to condemn the pervasive sins that destroy India and Africa. The weight of patriarchal oppression falls on women. The political, social, cultural, and personal knowledge that women exhibit today is a direct outcome of the fiction authors who broke with conventional thinking and ushered in a new age of awareness.

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## ACHIEVEMENTS AND AGONIZATIONS OF WOMEN IN THEIR WORK SPACE AS REPRESENTED IN FRANCES HARPER'S IOLA

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### Abstract

*'Women and Glass Ceiling', many of us are unaware of this conception, it might sound as a typical feministic term, but it has shades of profound meanings. Women are vehemently put down under the Glass Ceiling, which restricts and devastates their career path. If something that hurdles or prevents them from making a progress in their professional life, it is termed as Glass Ceiling. This study gives a detailed scrutinization of achievements and agonizations of women in their workspaces, through the lens of Frances Harper's Iola Leroy.*

**Objective:** *The primary aim of this study is to impart awareness among women about 'Glass Ceiling' and to make them efficiently capable and strong enough to face the challenges in the outside world.*

**Keywords:** *Women and Glass Ceiling.*

### Introduction

'Women and Glass Ceiling' is one of the core concept that falls under Women's studies. The term 'Glass Ceiling' is an oblique representation of trammels like male dominance, sexual abuse, marginalization and gender discrimination etc., that shackles women in their workplaces. Women are being curbed and tormented in the name of rules and regulations. But women are obstinately determined to break these barriers. Though they have been put down by the society, they have proved their mettle by etching their names in the pages of history. An American author named Frances Ellen Watkins Harper captured women's success and snags because of Glass Ceiling in her strikingly notable work Iola Leroy. Frances Harper profoundly sketched the Protagonist Iola Leroy, whose character is a conspicuous portrayal of the accomplishments and vanquishments of women in the patriarchal society. Iola Leroy who has negro blood in her veins, was repressed by the society. But with her persistent effort, she touched the zenith of triumph by conquering the crest-fallen episodes of her life. This paper is an explicit illustration of how women can shatter the Glass Ceiling to embellish their dreams with wings to fly.

### Sad Truth Behind Glass Ceiling

The term 'Glass Ceiling' was first coined and leveraged by a consultant and writer Marilyn Loden in 1978 at a discussion about women's position in the workplace. The term gained its popularity in the year 1980 through a book. The Working Woman Report in 1984 and through an article Wall Street Journal in 1986. In 1990 in the U.S. women employees are less than 54 million, but after the circulation of this term women procured progress by women workers rising up to 74 million in 2022. But the betterment doesn't last long, soon nearly one million women were forced to relinquish their jobs. Later as the women employees increased in number, the Glass Ceiling becomes immovably strong enough to break. The government implemented 'The Glass Ceiling Act' in 1991, which tried to unfetter women from certain barriers. Though government executed many acts for the well-being of women, Glass Ceiling persistently remained as an ineradicable stumbling block that restricted women from reaching a better position. From days of yore till today, it remains indestructible and it is strong enough to prevail over the life of women. Glass Ceiling implicitly signify that the work world is different for both men and women, which propels men to move forward but deliberately drag down proficient

women. Here are some of the malignant acts that hegemonize women in their workplaces.

**Sexual Harassment:** is the most diabolical act that women encounters in their workspaces. A report says, 59 percent of women have been victimized by Sexual Harassment and from the year 2018 to 2021, The U.S. Equal Employment Opportunity Commission filed 27,291 Sexual Harassment cases. As a ramification of this brutish act, 37 percent women are forced to give up their jobs. Gender Bias: is nothing but, the ascendancy of one gender over the other. In the year 2017, Pew Research Study released a report that says 42 percent women experienced Gender Biases Marginalization and the most depressing truth is that 51 percent women are discriminated because of their skin colour, they have been victimized by Racism. Men always anticipates women to be a slave to them. They don't want to see the progression of women, instead they want them to look after the household chores. They want to leash them, their talents and want to make them as a puppet. Wage Inequality: is a consequence of Gender Bias. Still 95 countries restrict women and they doesn't grant equal pay to them.

The list doesn't end here, It prolongs. Women are shoved to face such ruthless acts and they have been forcefully brought beneath the Glass Ceiling.

#### **A Brief Sketch out of A prominent Writer**

Frances Ellen Watkins Harper is a renowned teacher, poet, writer, public speaker and abolitionist. She was born on September 24, 1825 in Baltimore, Maryland and raised by her uncle and aunt. She completed her schooling in the Academy for Negro Youth. She commenced her career as a teacher by teaching in Ohio and Pennsylvania. She also acted as a traveling speaker by voicing out for slaves and frequently penned her thoughts for anti-slavery newspapers. Frances Harper was an active member of the American Women's Suffrage Association. National Association of Colored Women was co-founded by her and she was the vice-president of this association. Many works were published from her pen, but the most significant couple of works are Sketches of Southern Life (1872), Iola Leroy

(1892). She died on February 22, 1911 in Philadelphia, Pennsylvania at the age of 85.

A Crisp And Concise Overview Of Frances Harper's Iola Leroy.

The story opens with the episode of slavery. Iola Leroy who has been working as slave of a wealthy planter. Her mother Marie Leroy, was a resolutely strong-willed person, who has negro blood in her veins, she was a slave and was pertinaciously against slavery. Her father Eugene Leroy was a rich and lavish person, but has no one to guide him, solitude was his companion. He sponsored Marie for her education and after Marie's graduation, he married her. But Eugene's cousin Alfred Lorraine opposed this wedlock. The couple had three children Harry Leroy, Iola Leroy and Gracie Leroy. They doesn't want their children to know that they have negro blood, because they doesn't want their children to go through what their mother have. So they sent Harry and Iola to the schools in North. Marie Leroy led a fairy tale life, but unfortunately that doesn't last long. Yellow fever took the lives of Eugene Leroy and Gracie Leroy. Eugene's Cousin Alfred Lorraine proved Eugene and Marie's marriage to be invalid, looted Eugene's assets and tried to slave Marie Leroy and Iola Leroy. Iola got separated from her mother Marie.

This is how Iola was pushed into Slavery. Her former slave Tom Anderson released her and made her to find a job as a nurse in the Union Army. But life took a turn, after Tom Anderson's death, Iola left the Union Army and went in search of her lost mother. In the process she encountered umpteen tribulations as a woman. But she doesn't relinquish and eventually she reunited with her mother Marie and her brother Harry. Iola's agonies as a black woman instigated her to liberate other women who belongs to black community. So, she actively took part in conferences and meetings and voiced out for the well-being of the black women. Dr. Latimer, who admires the African community and who's strongly against Racism supported her acts. The novel ends with an euphoric episode of Iola Leroy and Dr. Latimer's marriage. They went to North Carolina,

there Iola conduct meetings for the sake of black women on how to audaciously survive in the patriarchal society and for black mothers on how to raise their children, she also worked as a teacher in the Sunday school.

An Imperceptible Glass Ceiling That Obstructs Women In Their Workspaces, Through The Lens Of Frances Harper's Iola Leroy.

'Glass Ceiling' is a metaphorical term which denotes the snags of women workers. The corporate environment is different for both and men. Whilesustaining in the workplace and escalating their lifestyle has been a cakewalk for men, for women evenstepping into lower level jobs has become a dream. In short, 'Glass Ceiling' is nothing but theimpediments that hold back women from reaching the pinnacle of their career.

There are shedload of obstacles for women in their workplaces. But among these, the most common and implacablehindrance is Racial Discrimination that constraints women. Women endures intolerable distress on the score of Racism. They are marginalized due to their skin colour. Even though they are exceptionally skillful, good opportunities were shut down for them. They have nothing to do with their skin tone, but they are forcedto abide the torments. Skin colour is not their mistake, but making themselves as a victim of Racism is a mistake. This iswhat Frances Harper delineates by dint of her groundbreaking work Iola Leroy.

Iola Leroy, her skin was fair enough like a white woman, but just because she has negro blood in her veins, her life was derailed by the society. All her miseries started from beingenslaved by a wealthyplanter. She has been subjugated by him to work in his field as a slave. She struggled to unshackle herself from the manacles of being a slave, but all her efforts sank like a stone. Blessedly, Tom Anderson, her former slavefettered Iola from her clutches and assisted her to work as a nurse in the Union Army. But fate doesn't let her persist in that job too. Her hardships resumed after Tom Anderson's death. Again she foraged for jobs, but she was turned

down. Amidst all her dejections, she also set her heart in search of her mother from whom she was parted. Being a lone woman that too in the society which suppressed her for her negro blood, Iola stood strong enough to face everything. Her persistent search for her mother, eventuated in a ravishing reunion. Everything went well, but again Iola was pushed to become the breadwinner of the family. She continued her search for jobs, but she has to jump through so many hoops to obtain her objective. Her uncle Robert Johnson helped her in the process.

One day she informed her uncle that she is going to make an application as a saleswoman in Mr. Waterman's store. She took the job and everything fell in line, until a colored woman, who was Iola's companion in church came to the store. Iola greeted her and their conversation induced a suspicion among the workers. A spy was appointed to scrutinize Iola's background. Finally Iola was terminated from the job, when they found outthat she belongs to a mixed race. 'Glass Ceiling' is seemingly evident here. She was hurdled and discriminated in her workplace because of Racism. But her diligence doesn't cease. She took the work of a saleswoman in another place, but this time she cautiously informed the owner Mr. Cohen, about her identity before taking the job. But he said not to inform other girls anything regarding this. One day, everyone was chewing the fat, talking about churches. It was Iola's turn to tell about her church. Everyone was surprised, because the church she mentioned belongs to the black people. The girls refused to work with Iola, and Mr. Cohen was coerced to dismiss Iola from the store. But when uncle Robert enquired about this to Iola, she said "The best blood in my veins is African blood, and I am not ashamed of it" (Iola Leroy, chapter 24, p.162). These lines are more than sufficient to meticulously illustrate her determination as a woman. She took pride in her negro blood. Racism is the 'Glass Ceiling' in Iola Leroy's life.

Dr. Gresham, a physician who belongs to the white community asks for Iola's hand in marriage, but Iola denies, saying that she doesn't like two

different races mixing up together. Furthermore Iola's goal is to strive for the welfare of the African community and to illuminate their lives, she told marrying Gresham would obstruct pursuing her goal. Later she married Dr. Latimer who voiced out for voiceless African heritage and involved himself in anti-slavery movements. Iola actively participated in conferences, held meetings for the sake of African mothers on how to be self-reliant and raise their children modestly. She embarked her teaching career by teaching in Sunday Schools. Iola Leroy endeavored to bring sunshine in the lives of the African people by making herself strong, through her own life. No matter how hard she was suppressed by the society, she never failed to chin up and take the challenges.

This is what every woman supposed to do in their life. Iola Leroy's journey was not simple. Life didn't give her any opportunities, she created it. When she was put down by the society in every circumstance, she strained every nerve to prove her mettle. Eventually she was on the crest of a wave. Iola Leroy is a valiant representation of women who touched the summit of success by decisively smashing the 'Glass Ceiling'. Women are more capable of doing toilsome chores than men. The problem is, they are not welcomed. If they are provided with a proper shot, then their audacity can move the mountains.

### Conclusion

"Every woman ought to know how to earn her own living. I believe that a great amount of sin and misery springs from the weakness and inefficiency of women." (Iola Leroy, chapter 24, p.160). A trepidation shadows women, that if they step outside the house, they might not get accepted by the society, so they are confining themselves. But women must learn to prioritize their identity and must not be dependent on someone else for their living. They must strive to earn an ineffaceable identity for themselves. Each and every woman has some kind of 'Glass Ceiling' in their workspaces, the one who shatters makes a clean sweep, the one who abides will miss the mark. Women ought to smash the 'Glass Ceiling', only then they can sense the sweet smell of success. Indeed it is an arduous task, but if a woman push herself out of her boundaries and peg away, then she can have the world at her feet.

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# A COMPREHENSIVE ANALYSIS OF STATISTICS LOOKING FOR BEHAVIOUR OF LIBRARY USERS IN SELF-GOVERNING ARTS AND SCIENCE COLLEGES IN TAMIL NADU

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## **Abstract**

*The libraries aren't handiest accumulating and providing get admission to everyday published materials, but additionally coping with ever-growing range of electronics sources, online indexes, databases, e-journals and so on., the e-books are growing day by day and are every day be had inside the internet. The present paper deals with data seeking behaviour of customers in autonomous colleges and humanities and technological know-how colleges in Tamil Nadu. It additionally examines the utilization level of e-journals, characteristics of e-journals, sorts of e-journals, steps worried in getting access to e-journals the position of library professionals, its merits and demerits. Information leads the day-to-day activities of the people. Everybody wishes statistics. Powerful utilization of facts determines the extent of pride on the success of needs. This looks at goals at analyzing the information in search of conduct of users in independent and humanities and science colleges in Tamil Nadu.*

**Keywords:** *Information Seeking Behaviour, Autonomous Colleges and Arts & Science College, Tamil Nadu State, E-Resources.*

## **Introduction**

The existing technology is the era of facts and know-how revolution. Records is now starting to be considered as a vital useful resource for the socio-financial development of a rustic. It's also familiar as a device for the usage of natural and human resources (Avijit dutta, 2007).

Facts looking for behavior is the package of attitudes through set of moves with a view to gain statistics need. Whilst attitudes and moves are collaborated, the overall performance emerges. Based totally on the extent of performance, the satisfaction level of the received information is decided (Poongodi et al., 2017).

Libraries help to improve reading habits, know-how, and recognition of the customers. They can be a part of properly examine habits of college students in any vicinity of specialization. Reading enhances private talents and helps to address complicated ideas or troubles. Reading encourages quick getting to know and strengthens the curriculum of the scholars. There are numerous forms of readers like talented readers, ordinary readers and e-readers. Gifted

readers have the addiction of deep analyzing and the normal readers read for his or her purposes simple and the e-readers examine e-books only through internet. The arts & technology colleges' libraries have a diffusion of books to fulfil extraordinary purposes of numerous types of instructional readers. Smooth access to analyzing materials is one of the crucial elements in cultivating reading.

Studying habits are crucial for college kids for their highbrow improvements. The library has the obligation of creating information day to day in different formats day-to-day inspire studying subculture the various college students. The college library has the obligation of creating statistics resources day-to-day in different forms everyday encourage analyzing conduct of the freshmen. Library customers read books day-to-day get the contemporary facts every day associated with their day-to-day realistic lifestyles. Books are chargeable for creating and generating analyzing habits among the university students. even though reading conduct are crucial want of the students, the full-size explosion of data posted within the shape of

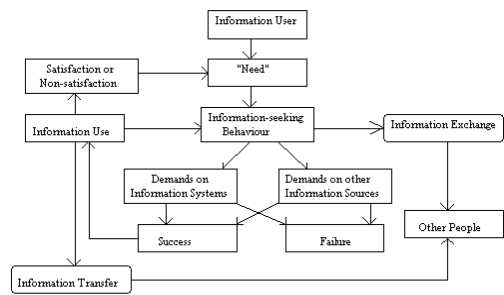
newspapers and books in one-of-a-kind topics, it's far impossible for all libraries every day subscribe all which are published on the country wide and worldwide stages. Below these situations the first-rate manner of serving the customers is every day show books nicely and notifying users about the brand-new facts day-to-day schooling (Balasubramanian et al., 2021).

This assignment ambitions to pick out information customers to decide their facts want and facts gathering behavior, patterns of statistics use and flow and consumer behaviour. Studies have additionally been finished to acquire views or opinion of users for designing and improvement of information structures and offerings.

It's miles to be cited that, consumer's scale of preference to distinctive varieties of services, variety of difficulty specification, orientation towards such offerings, strategies of presentation of facts and so forth. Are to be taken into consideration in their personal context. For evaluation of the efficiency of a library or facts structures, above stated elements also are considered.

### Information Seeking Behaviour

Statistics in search of conduct refers back to the strategies for finding information and retrieving it to fulfil the educational desires and quest for expertise. It has three elements, particularly, people, records, and structures worried. statistics in search of is an herbal and important mechanism of human lifestyles. Information seeking is the manner of attempting to find data from all fact's assets along with e-assets. Statistics searching for differs from man or woman to person, that is, the approaches and way they're using in looking for the facts are extraordinary at one-of-a-kind objects. The statistics looking for conduct basically refers to the techniques and actions undertaken to find and discrete information elements. The incorporated usage of the three fundamental sources - people, statistics and system have end up placed and parcel of facts seeking conduct, to yield the very best records delight to the customers.



**Figure 1 A Model of Information Behaviour  
(Reproduced from Wilson, 1981)**

### Review of Literature

Floyd (1975) investigated the information seeking behaviour of the students in seven Jamaican high schools and found out that the increased access to books and other sources made a difference in the book preferences, and that Jamaican students had some common interests with their peers from other countries. The identification of books commensurate with their reading interests is of particular importance for sixth graders who are at a crucial stage in their reading development.

Gorman (1990) carried out a study entitled, patterns of information seeking and library use by theologians in seven Adelaide theological colleges. The researcher described an attempt to develop the theological libraries, a replicable method for collecting data on information seeking behaviour and library. Use by theologians provide information on Adelaide theological colleges, derives data from the study of research habits analysis data on the use of libraries.

Griffiths and Brophy (2005) conducted a survey on student's information searching behaviour on the web. They found out that the students prefer to locate information or resources via a search engine and Google is the search engine of their choice. Also, it was reported that search engines influence their perception and expectations of other electronic resources.

Jamali et al., (2005) article provides a review of the log analysis studies on use and users of scholarly electronic journals. Log analysis is clearly useful for



certain kinds of analyses, like shedding light on the format of the article's scientists read (PDF or HTML), the age of the articles (obsolescence), and the way scientists navigate to the required material (searching and browsing behavior). But log analysis is not helpful in discovering the value and use of the articles retrieved, or about what lies behind the expressed information seeking behaviour.

Keller, Melanie. (2006) conducted a study on "An examination of user behaviour during web information task" with 21 participants in order to understand the characteristics of information seeking tasks on the web and how the tools of current web browsers are being used within information seeking tasks. The result of the study was that there are several differences in how the users integrated with their web browser during different tasks. The information gathering tasks take longer time than the fact-finding tasks but both were search-based with the heavy use of Google.

### Statement of the Problem

The point of interest of the take a look at is to research the level of reading habits and the usage of library services through the students of users in self-sufficient colleges and humanities & technological know-how colleges in Tamil Nadu. The statement of the trouble is to examine the information searching for behaviour of the humanities and science colleges in Tamil Nadu.

### Objectives of the Study

The following objectives are framed for the study.

1. To identify the causes or motives of reading among the users of autonomous colleges in
2. Arts & Science Colleges.
3. To know the level of information seeking behaviour of respondents.
4. To identify the factors affecting the users' reading habit.
5. To provide possible recommendations to make reading habits more convenient.

### Scope of the Study

This study is concerned with the information seeking behavior of users in autonomous colleges and Arts & Science Colleges in the Tamil Nadu has 25 Arts & Science Colleges. Affiliated to UGC. Delhi. Out of these colleges, 5 Colleges are taken for the present study.

### Methodology

For the motive of this examine, a stratified random sampling approach become accompanied for the selection of respondents. The take a look at is based at the number one information collected from the scholars. A questionnaire became advanced for this examine and given to 150 college users and students located inside the libraries and the crammed 146 questionnaire changed into gathered from the students of select Arts & science colleges in Tamil Nadu. Enough time changed into given to the respondents for furnishing the statistics. Their tips relating to the improvement of library offerings also are known as for.

### Analysis and Interpretation

**Table 1 Sample size**

S. No	No. of Questionaris distributed	No. of Questionaries filled	%
1	150	110	73.33

Questionnaires were distributed among the students of users in autonomous colleges and Arts & Science Colleges in the Tamil Nadu. Number of questionnaires distributed and the response received are shown-in Table 1.

**Table 2 Showing the Time Spend on an average in Libraries**

S. No	Usage	No. of Respondent	%
1	Less than 1 hour	18	16.36
2	2-3hour	41	37.27
3	3-4hour	21	19.09
4	4-5hour	20	18.18
5	Morethan 5 hours	10	09.09
	<b>Total</b>	<b>110</b>	<b>100</b>

### Interpretation

From the above Table.2 it is found that 37.27% of the users spent time 2–3 hours per day in the library.

**Table 3 Showing the Methods of Information Seeking Behavior**

S. No	Methods	Level of Satisfaction	No. of Respondents	%
1	Discuss with librarians	Highly Satisfied	31	28.18
2	Consult with teachers	Satisfied	29	26.36
3	Lookfore-devices	Unsatisfied	24	21.81
4	Discuss with seniors	Highly Unsatisfied	11	10.00
5	Browsein the library catalogue	Neutral	15	13.63

### Interpretation

From the above Table. 3 it is found that 28.18% of the students are highly satisfied with consulting with their teachers for seeking information.

**Table 4 Showing the Purpose of Information Seeking**

S. No	Purpose for Seeking Information	No. of Respondents	Percentage of Respondents
1	General awareness	19	17.27
2	Prepare for class notes	29	26.36
3	Project work/ workshop/ seminar	33	30.00
4	Reading/ thinking purpose	16	14.54
5	Preparing answer for questions	13	11.81
<b>Total</b>		<b>110</b>	<b>100</b>

### Interpretation

From the above Table. 4 it is found that 30.00% of the users preparing for their work related to project /seminar /workshop.

### Result

Table.1 Shows that Questionnaires were distributed among the students of users in autonomous collegesand Arts & Science Colleges in the Tamil Nadu. Number of questionnaires distributed and the response received. 37.27% of the users spent time 2–3 hours per day in the library are shown-in Table. 2 and Table. 3 shows that 28.18% of the students are highly satisfied with consulting with their librarians for seeking information. Table. 4 shown in 30.00% of the students preparing for their work related to project/seminar/workshop.

### Suggestions

University libraries should conduct campus studying packages, e-book golf equipment, readers' advisory offerings and so forth., to enhance the scholars' reading habits, and there have to be secure studying areas. Parents must encourage the scholars and customers to study and go to libraries even from the early life as computer systems and clever telephones have come to be dominant functions that have an effect on the reading habit and information looking for conduct of the younger technologies.

### Conclusion

The evaluation of facts absolutely exhibits that the libraries of users in self-reliant colleges and arts & science colleges within the Tamil Nadu. Encouraging the studying habit of the scholars. Smooth get right of entry to studying substances is one of the vital elements in cultivating analyzing habit. Users are using each print substances and digital assets which can be available inside the college libraries to expand their reading habits and to fulfil their instructional functions. Within the educational libraries there should be adequate books and newspapers to boost up analyzing conduct. This have a look at may be useful to the librarians to understand the significance of the statistics seeking conduct of customers.

The study also emphasizes the want to beautify the students' information seeking conduct by using enhancing the offerings related to library and by sharing the provision of the traditional and e-resources.

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# CYCLIC PARTITIONS OF SUPERMAGICAL PARTITIONS

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## Abstract

Let  $n \geq 2$  be an integer and  $P_n = \{p_1, p_2, \dots, p_r\}$  be a set of  $r \geq 2$  partitions of  $n$  satisfying the following conditions:

1. in each  $p_i$  the integers are all distinct and
2. any two distinct  $p_i$ 's have at most one part in common.

Further the set  $P_n$  is called a supermagical configuration of  $n$  and of order  $p$  if it satisfies for some positive integer  $p$ . Two special types of supermagical configurations of  $n$  called cycles and stars have been discussed by E Sampathkumar et.al. in 2006. If  $n$  admits a 3-uniform  $r$ -cyclic partition, then vertices and edges of  $C_r$ , the cycle of length  $r$ , can be labeled with  $\{1, 2, \dots, 2r\}$  such that for each edge  $e=uv$ ,  $l(u)+l(v)+l(e)=n$ . Necessary and sufficient conditions for  $n$  to admit a 3-uniform super magic  $r$ -cyclic partition have been given by them for  $3 \leq r \leq 6$ . This paper extends this result to  $r=7, 8, 9$  & 10. It has been proved that  $n$  admits a 3-uniform supermagic 7-cyclic partition if and only if,  $19 \leq n \leq 26$ . If  $n$  admits a 3-uniform supermagic 8-cyclic partition if and only if,  $23 \leq n \leq 29$ . Two more special configurations are introduced. Instead of  $C_r$ , we take disjoint union  $C_r \sqcup C_r$  in the first and union of two cycles of length  $r$  with exactly one common vertex in the second. Bound for  $n$  to admit the above types of partitions have been obtained. It has been proved that  $19 \leq n \leq 29$  in type I.  $23 \leq n \leq 29$  in type II. AMS Subject Classification: 05C 022 Graph Theory

**Keywords:** Cyclic Partition, Partition of an Integer, Supermagical Partition.

## Introduction

Partition of number play a vital role in number theory. Magic square attracts everyone's attention towards number theory. It is highly interesting to deal with Supermagical partitions which in turn are associated with a particular type of graph labeling.

### Definition 1.1. Partition

By a partition of a positive integer  $n \geq 2$  we mean an ordered  $k$ -tuple  $(a_1, a_2, \dots, a_k)$  of positive integers  $a_i$ , called its parts, such that  $n$  equals their sum; we regard two partitions of  $n$  as identical if they have the same set of integers. A set of partitions of  $n$  is a positive integer  $n \geq 3$  is said to be semigraphical if every member of  $S$  has at least two parts and no two members of  $S$  have more than one part in common.

### Super Magic- Cyclic Partition

#### Definition 2.1. Supermagical configuration

Let  $n \geq 2$  be an integer and  $P_n = \{p_1, p_2, \dots, p_r\}$  be a set of  $r \geq 2$  partitions of  $n$  satisfying the

Following conditions:

1. in each  $p_i$  the integers are all distinct and

2. any two distinct  $p_i$ 's have at most one part in common.

Further the set  $P_n$  is called a supermagical configuration of  $n$  and of order  $p$  if it satisfies for some positive integer  $p$ .

#### Definition 2.2. Super magical partition

A set  $P_n = \{p_1, p_2, \dots, p_r\}$  of partitions of an integer  $n$  is super  $n$ -magic if for some integer  $p$ , every integer in  $S_p = \{1, 2, \dots, p\}$  belongs to some  $p_i$  in  $P_n$ , and every  $p_i$  contains integers only from  $S_p$ .

#### Definition 2.3. Cyclic Partition

A linear set  $P_n = \{p_1, p_2, \dots, p_r\}$  of  $r \geq 2$  partitions of  $n$  is

1.  $r$ -cyclic (or cycle of length  $r$ ) if each pair of ordered pairs of the form  $(p_i, p_{i+1}), (p_{i+1}, p_{i+2})$  the first part of  $p_{i+1}$  is the last part of  $p_i$  and the last part of  $p_{i+1}$  is the first part of  $p_{i+2}$ ,  $1 \leq i \leq r$ , where indices are reduced modulo  $r$ , and no two partitions other than those specified above share a common part;
2. An  $r$ -star if all the partitions in  $P_n$  have a part in common. Further,  $P_n$  is  $r$ -cyclic (an  $r$ -star), then we

say that  $n$  admits a cyclic partition of length  $r$  (an  $r$ -star, or star partition of size  $r$ ).

### Some Results on Supermagical R-Cyclic Partitions

**Theorem 3.1:-**[1] Let  $P_n = \{p_1, p_2, \dots, p_r\}$  be a set of 3-uniform cyclic partitions of an integer  $n$  which is super-magic and of length  $r$ .

Then  $\leq n \leq$ .

#### Theorem 3.2.

Suppose  $n$  is a positive integer. Then

1.  $n$  admits a 3-uniform supermagic 7-cyclic partition if, and only if,  $19 \leq n \leq 26$ ;
2.  $n$  admits a 3-uniform supermagic 8-cyclic partition if, and only if,  $23 \leq n \leq 29$

#### Theorem 3.3

$n$  admits a 3-uniform super magic 7-cyclic partition if and only if  $19 \leq n \leq 26$ .

#### Proof

If  $n$  admits a 3-uniform super magic 7-cyclic partitions then

$$\leq n \leq$$

$$(ie) 19 \leq n \leq 26.$$

The list of such partitions are given below for  $19 \leq n \leq 26$ .

$n=19$	1,13,5	5,12,2	2,11,6	6,10,3	3,9,7
	7,8,4	4,14,1			
$n=20$	2,12,6	6,13,1	1,14,5	5,11,4	4,9,7
	7,3,10	10,8,2			
$n=21$	4,14,3	3,12,6	6,13,2	2,8,11	11,1,9
	9, 5, 7	7,10,4			
$n=22$	2,8,12	12,9,1	1,10,11	11,7,4	4,5,13
	13,3,6	6,14,2			
$n=23$	1,12,10	10,2,11	11, 5, 7	7,3,13	13,4,6
	6, 9, 8	8,14,1			
$n=24$	9, 7, 8	8, 2, 14	14, 4, 6	6,5,13	13,1,10
	10,11,3	3,12,9			
$n=25$	13, 7, 5	5, 12, 8	8, 6, 11	11,4,10	10,1,14
	14, 2, 9	9,3,13			
$n=26$	12, 5, 9	9, 4, 13	13,3,10	10,2,14	14,1,11
	11, 7, 8	2,6,12			

### Hence the Result

#### Theorem 3.4:-

$n$  admits a 3-uniform super magic 8-cyclic partition if and only if  $23 \leq n \leq 29$ . Integers 30 and 31 do not admit any set of supermagic 3-uniform 8-cyclic partitions.

#### Proof

If  $n$  admits a 3-uniform super magic 8-cyclic partitions then

$$\leq n \leq$$

$$(ie) 23 \leq n \leq 31.$$

The list of such partitions are given below for  $23 \leq n \leq 29$ . 30 and 31 do not admit any set of supermagic 3-uniform 8-cyclic partitions

$n=23$	1,12,10	10,11,2	2,16,5	5,15,3	3,7,13
	13,4,6	6,9,8	8,14,1		
$n=24$	10, 6, 8	8, 14, 2	2,7,15	15,4,5	5,16,3
	3,9,12	12,11,1	1,13,10		
$n=25$	14,1,10	10,12,3	3,16,6	6,15,4	4,8,13
	13,7,5	5,11,9	9,2,14		
$n=26$	8,2,16	16,1,9	9,14,3	3,11,12	12,10,4
	4,15,7	7,6,13	13,5,8		
$n=27$	4,7,16	16,2,9	9,3,15	15,11,1	1,12,14
	14,5,8	8,6,13	13,10,4		
$n=28$	3,14,11	11,2,15	15,1,12	12,6,10	10,5,13
	13,7,8	8,4,16	16,9,3		
$n=29$	16,2,11	11,3,15	15,1,13	13,6,10	10,5,14
	14,7,8	8,12,9	9,4,16		

#### Claim

The integers 30 and 31 do not admit any set of supermagic 3-uniform 8-cyclic partitions.

#### Proof

Suppose on the contrary 30 admits such set of partitions say,

$(a_1, a_2, a_3), (a_3, a_4, a_5), (a_5, a_6, a_7), (a_7, a_8, a_9), (a_9, a_{10}, a_{11}), (a_{11}, a_{12}, a_{13}), (a_{13}, a_{14}, a_{15}), (a_{15}, a_{16}, a_1)$ .

then  $a_i + a_{i+1} + a_{i+2} = 30$  for  $1 \leq i \leq 13$ ,  $i$  being an odd integer and  $a_{15} + a_{16} + a_1 = 30$ .

Also

$$=1+2+3+4+5+6+7+8+9+10+11+12+13+14+15+16=136.$$

Clearly each 3-partition sums up to 30 and there are 8 partitions.

$$\text{Total sum}=8 \times 30=240$$

$$\begin{aligned} \text{Sum of the repeated labels} &= a_1 + a_3 + a_5 + a_7 + a_9 + \\ & a_{11} + a_{13} + a_{15} \\ &= 240 - 136 = 104. \end{aligned}$$

$$\begin{aligned} \text{Hence sum of the middle labels} &= a_2 + a_4 + a_6 + a_8 + \\ & a_{10} + a_{12} + a_{14} + a_{16} \\ &= 136 - 104 = 32. \end{aligned}$$

Minimum possible value for super magic partitions

$$a_2 + a_4 + a_6 + \dots + a_{16}$$

$$1+2+\dots+8=$$

Similarly 31 do not admit any set of supermagic 3-uniform 8-cyclic partitions.

### Double Cyclic

Definition 4.1. Double Cyclic

A linear set  $p_n = \{p_1, p_2, \dots, p_{2r}\}$  of partitions of  $n$  is type I-r- double cyclic if

$$p_n = p^n \cup p'^n \text{ where both } p^n, p'^n \text{ are r-cyclic.}$$

Note 4.2:-

$n$  admits a 3-uniform super magic type I-r-double cyclic partition if the vertices

and edges of  $2C_r$  can be labelled with  $\{1, 2, \dots, 4r\}$

such that for each edge  $e=uv$ , we have  $l(u) + l(v) + l(e) = n$ .

### Theorem 4.3

Let  $P_n = \{p_1, p_2, \dots, p_{2r}\}$  be a set of 3-uniform type I-r-double cyclic partitions of an

integer  $n$  which is super-magic and of length  $r$ . Then

$$\leq n \leq$$

### Proof

Let  $(a_1, a_2, a_3), (a_3, a_4, a_5), \dots, (a_{2r-1}, a_{2r}, a_1)$  and  $(a_{2r+1}, a_{2r+2}, a_{2r+3}),$

$(a_{2r+3}, a_{2r+4}, a_{2r+5}), \dots, (a_{4r-1}, a_{4r}, a_{2r+1})$  be the  $2r$  partitions of the  $n$ -supermagic cycle. Since  $P_n$  is supermagic,  $a_1, a_2, \dots, a_{4r}$  are distinct integers from the set

$\{1, 2, \dots, 4r\}$  and  $a_i + a_{i+1} + a_{i+2} = n$  for  $1 \leq i \leq 2r-3$   $i$  being an odd integer,

$a_{2r-1} + a_{2r} + a_1 = n$  and  $a_{4r+i} + a_{4r+i+1} + a_{4r+i+2} = n$  for  $1 \leq i \leq 4r-3$   $i$  being an odd integer,

$$a_{4r-1} + a_{4r} + a_{2r+1} = n.$$

Now clearly

$$1+2+\dots+2r \leq a_1 + a_3 + a_5 + \dots + a_{4r-1} \leq (2r+1) + (2r+2) + \dots + (4r)$$

We observe that

$$1+2+\dots+4r =$$
 and adding this to the above eqn.

We have

$$+ a_1 + a_3 + a_5 + \dots + a_{4r-1} \leq (2r+1) + (2r+2) + \dots + \leq a_1 + a_3 + a_5 + \dots + a_{4r-1} \leq - +$$

Now since the sum of the labels in each partition is  $n$ , we find that the middle term above is  $2rn$ .

$$14r^2 + 3r$$

Hence we have

$$\leq n \leq.$$

Example:-

$n$  admits a 3-uniform super magic 4-double cyclic partitions  $22 \leq n \leq 29$

$$n = 22: (6, 15, 1), (1, 16, 5), (5, 14, 13), (3, 13, 6), (8, 10, 4), (4, 7, 11), (11, 9, 2), (2, 12, 8).$$

$$n = 24: (7, 15, 2), (2, 16, 6), (6, 14, 4), (4, 13, 7), (11, 1, 12), (12, 3, 9), (9, 10, 5), (5, 8, 11).$$

$$n = 25: (1, 15, 9), (9, 14, 2), (2, 10, 13), (13, 11, 1), (6, 3, 16), (16, 4, 5), (5, 8, 12), (12, 7, 6).$$

$$n = 26: (12, 9, 5), (5, 10, 11), (11, 2, 13), (13, 1, 12), (16, 7, 3), (3, 15, 8), (8, 14, 4), (4, 6, 16).$$

$$n = 27: (15, 3, 9), (9, 4, 14), (14, 2, 11), (11, 1, 15), (5, 16, 6), (6, 13, 8), (8, 7, 12), (12, 10, 5).$$

$$n = 28: (2, 10, 16), (16, 1, 11), (11, 3, 14), (14, 12, 2), (15, 5, 8), (8, 7, 13), (13, 6, 9), (9, 4, 15).$$

$$n = 29: (12, 3, 14), (14, 4, 11), (11, 2, 16), (16, 1, 12), (13, 7, 9), (9, 5, 15), (15, 8, 6), (6, 10, 13).$$

Illustration:-  $n=25$

### Theorem 4.4

Let  $P_n = \{p_1, p_2, \dots, p_{2r}\}$  be a set of 3-uniform type II-r- double cyclic partitions of an

integer  $n$  which is super-magic and of length  $r$ . Then

$$\leq n \leq$$

### Proof

Let  $(a_1, a_2, a_3), (a_3, a_4, a_5), \dots, (a_{2r-1}, a_{2r}, a_1)$  and  $(a_1, a_{2r+1}, a_{2r+2}), (a_{2r+2}, a_{2r+3}, a_{2r+4}), \dots$

$(a_{4r-2}, a_{4r-1}, a_1)$  be the  $2r$  partitions of the  $n$ -supermagic cycle. Since  $P_n$  is supermagic,  $a_1, a_2, \dots, a_{4r-1}$  are distinct integers from the set  $\{1, 2, \dots, 4r-1\}$  and  $a_i + a_{i+1} + a_{i+2} = n$  for  $1 \leq i \leq 2r-3$   $i$  being an odd integer,  $a_{2r-1} + a_{2r} + a_1 = n$  and

$$a_{4r+i} + a_{4r+i+1} + a_{4r+i+2} = n \text{ for}$$

$$1 \leq i \leq 4r-4 \text{ } i \text{ being an odd integer, } a_{4r-2} + a_{4r-1} + a_1 = n.$$

Now clearly

$$1+2+\dots+2r-1 \leq a_1 + a_3 + a_5 + \dots + a_{2r-1} + a_{2r+2} + a_{2r+4} + \dots + a_{4r-2} \leq (4r-1) + (4r-2) + \dots + (4r-2r+1)$$

We observe that

$$1+2+\dots+(4r-1) = \text{and adding this to the above eqn.}$$

$$2r(4r-1) + \leq a_1 + a_3 + a_5 + \dots + a_{2r-1} + a_{2r+2} + a_{2r+4} + \dots + a_{4r-2} \leq 2r(4r-1) + (4r-1) + (4r-2) + \dots + (4r-2r+1)$$

$$10r^2-3r \leq a_1 + a_3 + a_5 + \dots + a_{2r-1} + a_{2r+2} + a_{2r+4} + \dots + a_{4r-2} \leq 14r^2-5r$$

$a_1$  appears 4 times but in the middle term we have  $a_1$  2 times only allowing the minimum value as 1 and the maximum value as 4 for  $a_1$ . We get

Now since the sum of the labels in each partition is  $n$ , we find the middle term above is  $2rn$ .

$$10r^2-3r + 2r \leq 2rn \leq 14r^2-5r + 8r$$

$$10r^2-3r + 2r \leq 2rn \leq 14r^2+3r$$

Hence we have  $\leq n \leq$ .

### Conclusion

Characterization of numbers admitting  $K$ -uniform partitions can be done using semi graphs. This trial may give many magic semigraphs. Number theoretic properties can be used for labelings and nature of labeled graphs may provide some information or properties of numbers.

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## GENDER EMPATHY IN KAMALA MARKANDAYA'S SOME INNER FURY

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*The Indian social system, with just a few exceptions, is dominated by patriarchy, which advocates male supremacy and female subordination. The bigger share has always been in the clutches of men and women have to be satisfied with the secondary role and have to be confined to the background. In this system, a woman is expected to mould herself in the pattern of the family into which she is married and ultimately merges her identity with that of her husband.*

In recent years, there has been an overabundance of hypothetical speculations on the problems of women in their feminine identities in the context of societal interpersonal relationships. Indian women novelists in English have reflected this in their writings with a sharp concern for the role and status of Indian women in terms of social and familial authority. Markandaya's novels exemplify a perceptive and insightful understanding of the feminine and the female in the Indian ethos. Women in her novels fall into two distinct categories – first are those who acquiesce their traditional social roles and perceive ideal womanhood in terms of being an obedient daughter, a subservient wife, a protective mother and only a marginal participant in decision making and the second are those who militate against the constraints of traditional Indian womanhood and attempt to assert social and sexual power in the face of socio- moral resistance. A.V. Krishna Rao, in his *The Indo-Anglian Novel and the Changing Tradition*

### **Observes**

Kamala Markandaya's novels, in comparison with those of her contemporary women writers, seem to be more fully reflective of the awakened feminine sensibility in modern India as she attempts to project the image of the changing traditional society. (Rao 55)

This paper attempts to examine and discuss the torments and desires, the pains and the pleasures of women in *Some Inner Fury*. The portrayal of the relationships between the two genders always had a

fascination for Markandaya. Her characters are strong and courageous as they have sturdy will power and face all the odds of life with great audacity. The protagonists of Markandaya are not idealists but they surpass the general weakness of the mortals. They know how to bend like a grass and how to face the reality of life and they always exhibit the courage to overcome disappointment and despair and they choose to fight against the odds of life through a heroic indulgence in conflict and struggle. For them, consistent fights form the integral part of life. However her women pass through the transitional phase which is neither too conventional nor too avant-garde. In all her novels, Markandaya has revealed her protagonists who believe that they are never inferior to their male counterparts.

Gender sensitization is mainly dealt through the experience of love and death in *Some Inner Fury*. S.C. Harrex writes that the theme of the novel "is the tragic participation of disunity and catastrophe in personal relationship." (Harrex 258) The novel is set against the background of the Second World War when the Quit India Movement was in air in 1942. It studies the impact of the troubled national spirit upon the love of Richard and Mira who belong to the different race and status – the ruler and the ruled. Mirabel being the protagonist of the novel, is the most comprehensively presented character with her own compassion and ingenious insight. She is more contemporary than conventional in her attitude as she is brought up in a Westernized household where there are two dining halls and two sets of cooks, one



western and the other Indian, and whose members go to European clubs and dance and play. In this family, visiting clubs is compulsory for everyone and Mira is introduced to the club to get her adequately westernized:

I went because I was taken; and to learn to mix with Europeans. This last was part of my training, for one day-soon – I would marry, a man of my own class who, like my brother, would have been educated abroad and who would expect his wife to move as freely in European circles as he himself did. (SIF14)

Mira has a Westernized outlook, yet she retains the inherent spirit of a traditional Indian woman for she has the Indian heart and possesses Indian acceptance and resilience. At the railway station, she goes to welcome her brother Kitsamy who returns with his English friend Richard from England. As it is the tradition of Indian culture that the guest is like a god and hence, the first priority to him, she welcomes him. She also receives Richard with the garland that she has brought for her brother. The basic shyness can be seen on her face when she garlands him. “And yet the first time we met I was so shy I hardly looked up until someone prodded me and I stumbled forward and garlanded him.” (SIF1)

When it comes to love or duty, certainly a traditional woman will opt for duty thereby sacrificing love. Country becomes more important for her than love and she sacrifices it for the sake of performing her duty. When Richard asks her “Do you really think people can be singled out like that? One by one, each as an individual? At a time like this?—After today?” (SIF 169) Mira in spite of her resilience and courage realizes that this is true. She replies: “There is a time in one’s life, they say, when one opens the door and lets the future in: I had the feeling I had done so, but had neither the power nor the courage to recognize the shape of things to come; and therefore I could not speak.” (SIF169)

Mira’s fears come true when Govind is accused of stabbing to death by Hickey. So, Govind is arrested and put on trial and Sudir Kumar Arora opines as:

She is convinced that Govind is innocent since she remembers that she had thrown her arms around Govind as a kid and therefore it is impossible for him to have thrown the dagger. Hickey maintains that he had seen Govind throwing the dagger. Before the issue could be decided, the court is mobbed by slogan-shouting crowds and Govind is taken away. She also realizes that it is no longer possible for her to keep herself aloof from her own people and maintain her relationship with Richard. She rises above the self and plunges into the great redeeming fire of the national movement. Being helpless and inexorable, she renounces her love reconciling her lot with the crowd. After all, she is convinced. (Arora 45)

Mira acquires the great choice of leaving her lover for the sake of her country. She is not mean and selfish when it comes to the duty for the nation and the people of her own country.

Premala, who is traditionally brought up, lives in a world defined by her parents and society. She is made to refuse her desires and is forced to live according to an abstract set of ideals far removed from reality. Premala’s family has protected her from the realities of being a woman. Her mother wishes Kitsamy to be her son-in-law but he will not marry Premala until or unless he meets her. In order to facilitate marriage, Premala comes to stay with Kit’s family. She knows, of course, the object of her coming. “No woman, after all, goes lightly to her marriage, there are always shadows before.” (SIF 36)

Premala becomes very nervous when she comes and her face becomes wet. She feels uncomfortable in the new changing circumstances as “She (Premala) is too young. I thought, forgetting she was older than me. To me she seemed a child and this feeling was always to remain for like a child, she had no defences.” (SIF 35)

By nature Premala is shy and conventional and basically Indian in spirit. She bends backwards in order to become a suitable mate for Kit and tries to mould herself according to his ultramodern tastes. Vijay Mehta and Bilal Ahmed Ganaie comment: “In contrast to the relationship of Richard and Mira

which represents the power of love, there is the intimate relationship between Kit and Premala... she is the victim of the modernity of her husband.” (Mehta and Ganaie 28) She comes to Mira to borrow her shorts, which she puts on only to satisfy Kit, but the blush in her face has no meaning and favour in the eyes of Kit.

... for she would have done anything for him – Premala came to borrow my shorts, put them on, blushing: blushed again, furiously, when Kit looked at her bare legs, for she had never worn anything but a sari. But this modesty, which is supposed to grace a woman, found little favour in Kit’s eyes. (SIF 36)

In the course of time, within a month, she wins the goodwill and heartfelt support of everybody in the family. There was no one who could not speak of Premala with affection, “for she was gentle and unassuming, and had bare legs, for she had tender pleasing ways” (SIF 38) Mira, who likes Premala, praises her saying: “And Premala...? A lovely face, tenderly moulded, which never lost its tenderness because she could never learn to be tough.” (SIF 107-108) In her valiant effort to gratify her husband and abiding by the notion of dharma, she thinks nothing of abnegating her identity. She is profoundly religious and is in accord with the religious part of the ritual. Mira writes about her religious nature as: “Several times I saw her praying eyes closed, forgetful of the crowd, with that expression of desperate entreaty you sometimes see on the face of a small pleading child.” (SIF 51)

Premala’s sacrifices go in vain as she becomes a martyr without a reason. She sacrifices herself at her attempts to be a perfect wife and later when she rushes to protect the school, which she has helped to build, she is burnt to death. Govind blames Kit for driving her to death. “She loved you,” he said, “you never loved her – you do not even know the meaning of love. You gave her nothing not even a home. You drove her to the village – you drove her to her death.” (SIF 187)

Kaur and Bajaj enlighten the readers as: “Death means nothing for people like Premala who spread out love around, because one remains beautiful in

death.” (Kaur and Bajaj 143) Premala as her name put forward, is a personification of love, and she, like a reformer, must lavish on her husband, on Govind, on the adopted child as also on the entire village but which, in the pervading violence and hatred, cannot endure and must certainly die.

In the case of Mira, from the very beginning of the novel, Mira’s actions show an unconscious fondness for Richard which can be taken as the indication of love and which had steadily transformed into profound love. Her confused act of garlanding him at the railway station, her delight at having him in her house, and her subsequent defense of Richard’s embarrassing act of borrowing a dhoti and a pair of slippers from one of the servants shows the sprouting of love in her. Markandaya deftly depicts the first flame of love in Mira, detailing her changing colors and tones, as also her growing sense of possession over him. They go out together as man and woman with a rich glow of love on Mira’s face. She meets Richard in the Government house and “the tapers of pleasure began to glow” (SIF 50) on her. His absence makes her uneasy like a chameleon in summer. For her, to be in the company of Richard becomes pleasure in itself as they are now in deep love. He thinks of marrying her, while Mira, in his absence, cannot put his image away and ecstatically unmindful of the world, Mira and Richard act as unmarried husband and wife. They live a life of love without marriage.

In contrast to the relationship between Mira and Richard which is based on love without marriage, the relationship of Premala and Kitsamy, could be termed marriage- without- love, being no more than yoking together of two contrasting individuals into a conjugal coalition. Kitsamy refuses to marry a girl without first knowing her as his love for the silk-haired English girl called Sylvia could not be turned into a marriage. Kitsamy’s opposition to marry Premala arose in the absence of his acquaintance with her. Finally Kitsamy married Premala and then he takes many efforts to modernize her. Kit likes playing tennis, whereas Premala does not and Kit asks her to put on shorts for which she has no liking.

She praises honesty, which has no significance for Kit. Her desire of playing on veena is in contrast with Kit's lack of interest for classical music. She knows Gita which Kit has forgotten and their natures are as diametrically opposed as those of Maya and Gautama in Anita Desai's *Cry, the Peacock*, except that whereas Premala strives robustly for modification, Maya does not. Premala agrees to give many more honest attempts for adjustment with her husband, but they continue to remain poles apart. Vijay Mehta and Bilal Ahmed Ganaie make a reference to relate: "Premala was not a child chronologically, but her behavior and mental setup was not worth to survive as the life partner of Kit, an English man by education but Indian by birth." (Mehta and Ganaie 29)

Premala's diminished yet gleaming love for Kit is extinguished in the absence of her husband's reciprocal gesture because it could turn into a flame the way it had become in Mira– Richard relationship. Mira talks of Premala's quite- pained disorientation and her lost face which "give up, one by one, the lights and colour of happiness." (SIF 108) In any case, Premala's love has been one sided for, it was because of her love that she tried so hard to please him. The bubbling enthusiasm of Kitsamy in modernizing her also cools down for Premala becomes quiet and withdrawn in the parties and her awkward behavior before the guests invites her husband's wrath.

Subsequently, the absence of her husband's love breeds frustration in Premala. The failure of Kitsamy is not in providing for Premala's physical comforts but making her soul starve for love. Having nothing, she adopts a child and shares with the village people the warmth of her love. For K.R. SrinivasaIyengar, Premala "is symbolic of the mother–mother India who is compassion and sufferance, who must indeed suffer all hurts and survive all disasters." (Iyengar 440) The child that pleases Premala irritates Kit because of the danger of it being taken as nonsense.

It is this unsatisfactory marriage which initiates Premala to take up social service, since broken-hearted women are often driven to become good

reformers. The proposition that "only a broken heart makes women reformers rather than passive lovers, that feminism is the result of ill- regulated or ill-bestowed passion." (SIF 216) applies as well to Premala. If Kit had really loved and accepted her as she was, without forcing her personality into inhospitable moulds, the problem of her becoming a reformer would not have arisen.

In *Some Inner Fury*, Mira's search is that of the self-deprecating as she enjoys a limited degree of freedom – enough to understand and identify the quest for identity undertaken by Premala and Roshan. But she cannot rebel totally for she has to make an uneasy truce with necessity. Her search for selfhood suggests the regions of tension and repose in our cultural life and she is the existential character who lives constantly under the shadow of the "death" of her selfhood.

These women characters in the novel are in one sense part of a failed quest, if one accepts the traditional concept of the pursuit motif as the hero's search for a goal and attainment of it. Yet Mira, Roshan and Premala have been successful in attaining some degree of selfhood. In this sense their quest is a success and they have dealt with social stereotypes – Premala in her goal of becoming an ideal wife, Roshan as the leader, and Mira in fighting for her freedom to love and have searched for a definition of sanctity and respect for themselves, as women, and as persons. It has meant releasing the self from the chains and shackles of doubt, ambivalence, guilt and shame to take charge of their own destiny. But, to realize their goals they have to undergo more painful experiences.

It is true that Roshan did not complete her quest as, Premala died in the process, and Mira lost her love. Yet, when one considers the fact that each of them did come out of the role model prescribed for them by the society, and tried to carve out their own destiny, they have lived through the century – old identity of being victims and martyrs and discovered the resilient spirit of an identity in search of creating a wholesome space.

Markandaya is able to examine the cross section of Indian women in her novels – the traditional and the modern and the rich and the poor. While Premala, representing the traditional women folk, bring out the moral courage of the Indian tradition through her stoic patience of all the pains and sufferings, Mira is a classic example of the modern woman, who exhibits rare courage in sacrificing her personal love and comfort for the sake of national loyalty. One can argue with conviction that Markandaya, as a matured creative artist, has successfully presented the different shades of the experiences, their meanings and their undercurrents through the women characters in her fiction.

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## A STUDY ON GREEN ENTREPRENEUR INCLINATION AMONG YOUNGER GENERATION IN DINDIGUL DISTRICT

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### Abstract

*The present study required to foresee the inclination toward green entrepreneurship among the younger generation. The study employed a descriptive approach by collecting cross-sectional data. Bachelor degree students in Arts and Science College and entrepreneurship courses comprised the respondents. The study analyzed 110 usable survey questionnaires in its final estimation. The result obtained by employing simple percentage analysis and chi-square test show the positive and significant impact of sustainability orientation and sustainability education on the green entrepreneurship inclination among younger generation. In contrast, the significant level effect of self-efficacy on green entrepreneurship inclination is detected among respondents. The study's findings would support the government, policy makers, and university authorities in developing a tailor-made awareness program through building a curriculum that could offer greater inclination toward green and sustainable education.*

**Keywords:** *Green Economy, Green Entrepreneurship Inclination, Future Generation, Quality of Life, Self-Efficacy, Sustainability Education, Sustainability Orientation.*

### Introduction

Green Entrepreneurship is the move by entrepreneurs to a sustainable business framework that is environmentally friendly by not only making profit but also driven by concerns toward saving our world and making it a better place to live in for us and our future generations to come. Both protection of environment and achievement of entrepreneurial goals are very important concept of Green Entrepreneurship.

Green Entrepreneurship in India is an emerging practice which is gaining more prominence from all avenues with each passing day. Our Future generation must realize that this is the need of time and one must not solely question the administration on solution to such matters but as being a responsible part of society each of us must fulfill or serve our environmental obligations and responsibilities, so as to create a smarter and more sustainable education and motivation programme.

### Green Entrepreneurship

The concept for the “green entrepreneurship” springs from the blend of the key appearances of the term

‘entrepreneurship’ and ‘green’. Entrepreneurship: Passion, Motivation, Risk, Innovation and competitive advantage. Green: Sustainable, Ecological and Social. “Green Entrepreneurship” is one of the three most important components of the sustainable development and an intersection of traditional, social and sustainable entrepreneurship. Thus, the “green entrepreneurship” is a cost-effective activity whose products, services, methods of production or organization have positive upshot on the environment.

### This Upshot Could be a Result of the Following

- Offering products or services the consumption of which leads to a change in the consumer's behavior, reducing the negative effect on the environment;
- Balancing the ecological and the economic goals of the company;
- Acquaint innovative ecological solutions to problems connected with production and consumption of products and services;
- Emerging business models which, when applied to use, might lead to a sustainable economic development;

- Discovering new possibilities on the market which are in connection with the demand and new way of living of the society.

Entrepreneurship is considered to be the moving force of the economy, assuring economic growth, technological and organizational innovations, and new workplaces. Training staff to work in the field of “eco-entrepreneurship”, as well as finding ecologically engaged people who have developed a plan for solving an environmental issue, is the key strategy for the success of the “green” idea. All types of eco-friendly business are many and thus, it could reflect on younger generation life in different ways in order to encourage them to think “green”.

### **Green Entrepreneurship - the Engine for Growth of Entrepreneurs and Youth Employment**

Entrepreneurship is indispensable for the country's socioeconomic development. Green entrepreneurship can form an integral part in the fight against youth unemployment due to the low entry-level requirements for young people in many sectors and their generally strong interest in innovative business solutions and sustainability considerations.

In addition, the creation of new firms allows equal access in terms of gender and is not limited to urban areas where traditionally larger employment opportunities exist. Green entrepreneurship can also provide new employment opportunities to workers who are set free during the restructuring towards a greener economic model.

### **Significance of the Study**

Today's burning issues causing environment are air and water pollution, solar ultra violet radiation, climate change, lead and mercury. These environmental threats have huge adverse impact on health, education, livelihood and well being of human life, and it also affects the other creatures on the globe. India will be affected pretty massively by climate change. Our environment fights us back, we are forced to rethink and amend our ways of living to become more eco-friendly. A new trend hence was given birth in our endeavor to become eco-friendly which many define as 'Being Green'. Some of the

most popular ways existing businesses can go green include operating almost entirely online and allowing employees to telecommute. Other ways existing businesses can become greener include placing recycling bins in employee reclines or cafeterias, replacing paper towel dispensers with hand dryers, and using recycled paper.

### **Review of Literature**

Early studies on green entrepreneurship have focused on three main aspects, Lenox and York, 2021. The backgrounds for this type of literature studies can be attributed to environmental economics, or institutional entrepreneurship. This approach focused on different aspects of remotely related questions, and hence the result is characterized as fragmented and inconclusive. The second aspect is on the motives inducing individuals to engage in green entrepreneurship (Keogh and Polonski, 2008; Pastakia, 2008; Linnanen, 2012; Choi and Gray, 2018; Kuckertz and Wagner, 2020; Schlange, 2020). These researchers point out that motivations of green entrepreneurs are partially differ from those of traditional entrepreneurs, as green entrepreneurs are to a certain extent motivated by both economic and environmental concerns. However, these studies do not examine the implications of these motivations on the process of green entrepreneurship.

An interesting theoretical contribution with respect to barriers to green entrepreneurship is made by Lennenen (2021). Lennenen states three kinds of barriers to overcome in order to succeed in introducing green products. The first barrier is the challenge of marketcreation. With respect to this barrier, Lennenen argument is that of the lack of environmental awareness among the general population and that consumer behavior is only changing slowly (Meffert and Kirchgeorg, 2013). Further, he argues that consumers are not confronted with immediate direct effects of their environmentally-sustainable actions. The second barrier is the financial barrier. He identifies the mismatch between the green entrepreneurs need for finance, and investors search for trustable and promising ventures to invest in. The reasons quoted

by linnenen for the mismatch are; green entrepreneurs are unfamiliar with the investment community and thus struggle to obtain require funds but also and investors prejudices towards green entrepreneurs and their ability and willingness to act in the interest of investors.

Hence, in the present work the researcher aims to study the motivations and barriers to green entrepreneurship. The study takes into account only Arts and Science graduates, those who have completed their education as well of those who are in the final semester. It can be justified the selection of the sample size is 100 respondent taken from Arts and Science colleges.

### Statement of the Problem

Normally, College students would be around 20 to 23 years of age complete their graduation. This gives them an urgency to decide on their career for the future. The over population and steady increases in the number of educated youth in the country, have made it virtually impossible for the government and the private sector to provide employment opportunities to the growing youth sector. In the context, self-employment has assumed greater significance in India. Therefore, it is an ideal time for the younger generation especially the college students of the our country to be motivated towards green entrepreneurship for solving the major problem confronting the nation, particularly unemployment.

This study contributes in many ways to current literature. This paper contributes to the understanding of unexplored aspect of green entrepreneurship and its overall process. This paper identifies and analyzes the motivation and barriers to actual green entrepreneurship that are perceived by the graduates and thereby provides valuable insights on the subject. Further, this paper provides results that are valuable to policy makers. It also provides a suitable base for further research, particularly, in Indian context.

### Objectives of the Study

The following objectives have been set for the study:

1. To know the green entrepreneurship inclination among younger generation.

2. To analyse the socio economic characteristics of young graduate students.
3. To know the effectiveness of green entrepreneurs education among the college students.
4. To offer suitable findings and suggestions of the present study.

### Research Methodology

The present study is purely based on primary data and secondary data.

#### Primary Data

Primary data being the original data. A structured questionnaire is used with the objective of gathering information on young graduate students.

#### Secondary Data

The data will be collected from various publications, different journals, articles related to the subject under study, websites, magazines and other materials are utilized.

#### Sampling Design and Data Analysis

The study aims at analyzing the Education institutions motivating the green entrepreneurship practice especially among college students. Both primary and secondary data were collected. Convenient sampling method was adopted to select 120 respondents selected from arts and science colleges.

#### Data Analysis and Interpretation

- Percentage Analysis
- Crosstabs With Percentage Analysis
- Chi – Square Analysis
- One Way ANNOVA

Percentage Analysis Technique is used to identify inclination of green entrepreneurs in future. For this the researcher identified five reason for the young entrepreneur to start the enterprise through the development of ecosystem.

**Table 1 Gender Composition of the Respondent**

Gender	Total	Percentage
Male	69	58
Female	51	42
<b>Total</b>	<b>120</b>	<b>100</b>

From the above table, it is show that the majority of the respondent are 58% is male and 42% are female respondent.

### Age Composition of the Respondents

Age are the most relevant factors when considering the socio-economic characteristics of the population. Age is an important factors showing the capability of the respondents to take up the risk and starting own business.

**Table 2 Age of the Respondents**

Age	No. of. Respondent	Percentage
Upto 18 years	17	14
19 – 20	53	44
21 – 22	50	42
<b>Total</b>	<b>120</b>	<b>100</b>

From the above table, it is clear that majority of 44% of the respondents are come under the age group between 19-20 years, 42% of the respondent are age group 21-22 years and 14% of the respondents are comes under the age group are upto 18 years.

**Table 3 Nature of Institution of the Respondent**

Stream of Study	No. of. Respodents	Percentage
Science	54	45
Arts	66	55
<b>Total</b>	<b>120</b>	<b>100</b>

From the above table, Nature of Institution plays an important role in efficiency of students. The nature of institution details of the respondents can understand. It is clear from the above table shows that out of 120 respondents, 55% of the respondents are arts streams and 45% of the respondents are science students.

### Institution Have a Entrepreneurs Cell

Education Institution is an important role to play inducing the students to become a green entrepreneur

through entrepreneur's cell. Table 4 Institution have a entrepreneurs cell.

**Table 4 Institution Have a Entrepreneurs Cell**

Stream of Study	Yes	No	Total
Science	33	20	53
Arts	45	22	67
<b>Total</b>	<b>78</b>	<b>42</b>	<b>120</b>

It is evident from the above table shows that, 65% of the respondents are member in the entrepreneurs cell and 35% of the respondents are not member in the entrepreneurs cell.

### Participation of Entrepreneurship Training Programs

The main purpose of organizing entrepreneurship training programs in the educational institutions is to foster the entrepreneurial talents among the students. Entrepreneurial training programs are conducted higher educational institutions to create entrepreneurial awareness among the students. It may also help them to acquire the necessary knowledge and skill needed to become green entrepreneurs. Table 5 shows the respondents' participations in entrepreneurship training programs.

**Table 5 Participation of Entrepreneurship Training Programs**

Stream of Study	Yes	No	Total
Science	30	20	50
Arts	45	25	70
<b>Total</b>	<b>75</b>	<b>45</b>	<b>120</b>

From the above table, it is clear that only, 65% of the respondents participated in the entrepreneurial training programs conducted by their educational institutions and 45% respondents are not participated in the entrepreneurial programs.

Chi – Square Analysis between Gender and awareness of green entrepreneurs of the respondents:

H0: There is no significance difference between the gender and awareness of green entrepreneur among the respondent.



**Table 6 Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.001a	1	.980		
Continuity Correction <sup>b</sup>	.000	1	1.000		
Likelihood Ratio	.001	1	.980		
Fisher's Exact Test				1.000	.592
Linear-by-Linear Association	.001	1	.980		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.05.

b. Computed only for a 2x2 table

The result of chi square test between gender and awareness of green entrepreneur among young graduate students in arts and science colleges above

Table. It shows that the value of Pearson Chi Square is 0.001 with the degree of freedom at 1. Further, it is represented that the p value is at 0.005. Since p value for chi square is less than 0.05 for gender and green entrepreneur awareness among young graduate students, it leads to accept the null hypothesis.

One – Way ANNOVA Analysis Between Stream Of Study And Facilitating Factors Are Highly Inclination The Green Entrepreneur Among Young Graduate Students:

The present study aimed to understand the extent of green entrepreneur inclination among the student's respondents. Based on the review of literature, 8 statement were formulated to study the respondents' awareness towards green entrepreneurs. A five point scale was used to measure the respondents inclination starting from Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1).

H0: There is no association between the stream of study and inclination of green entrepreneur among the respondent.

**Table 7 ANOVA**

		Sum of Squares	Df	Mean Square	F	Sig.
Sustainability Orientation	Between Groups	.290	1	.290	.663	.417
	Within Groups	51.577	118	.437		
	<b>Total</b>	<b>51.867</b>	<b>119</b>			
Sustainability Green Entrepreneur Education	Between Groups	.026	1	.026	.105	.747
	Within Groups	29.840	118	.253		
	<b>Total</b>	<b>29.867</b>	<b>119</b>			
Self- Efficiency	Between Groups	.632	1	.632	.451	.503
	Within Groups	165.335	118	1.401		
	<b>Total</b>	<b>165.967</b>	<b>119</b>			
Risk Taking	Between Groups	.220	1	.220	.265	.608
	Within Groups	98.280	118	.833		
	<b>Total</b>	<b>98.500</b>	<b>119</b>			
Creativity and Innovativeness	Between Groups	.041	1	.041	.041	.840
	Within Groups	118.750	118	1.006		
	<b>Total</b>	<b>118.792</b>	<b>119</b>			
Problem solving attitude	Between Groups	1.444	1	1.444	2.607	.109
	Within Groups	65.356	118	.554		
	<b>Total</b>	<b>66.800</b>	<b>119</b>			
Creating Economic Situation	Between Groups	.357	1	.357	2.312	.131
	Within Groups	18.234	118	.155		
	<b>Total</b>	<b>18.592</b>	<b>119</b>			
Strong willpower	Between Groups	39.259	1	39.259	1.697	.196
	Within Groups	2452.407	106	23.136		
	<b>Total</b>	<b>2491.667</b>	<b>107</b>	Mean Square	F	Sig.

The above table shows the result of ANOVA based on facilitating factors are highly induced the entrepreneurship with age of the respondents. Since the respective “p” value of the facilitating factors are highly inclination the green entrepreneurs with stream of study of the respondents with reference to sustainability orientation, sustainability green entrepreneur education, creativity and innovative thinking, self - efficiency, risk taking, problem solving attitude, creating economic situation and strong will power are more than 0.05. So the Null Hypothesis is rejected. Therefore it may be concluded that stream of course of the respondents are not highly associated the facilitating factors is inclination of green entrepreneur practices among the young graduate students.

#### **Finding of the Study**

- 58% of the respondent are male
- 44% of the respondent age group is 19-20.
- 55% of the respondents are arts streams
- 65% of the respondents are member in the entrepreneurs cell
- 65% of the respondents participated in the entrepreneurial training programs conducted by their educational institutions.
- There is a significant relationship between gender and awareness's of green entrepreneur.

#### **Conclusion**

The present study revealed that most of the young green entrepreneurs even though had other

occupational opportunities, chose green entrepreneurship as a career because they aspire to be independent and to earn more eco-money. The study makes it clear the green entrepreneur inclination among youth are diverse and their exposure to entrepreneurship education for a period of three year is capable of provoking the intention of becoming green entrepreneurs. This is also an indication that they have been equipped with the necessary knowledge and skills required for a new venture start up. It is also importance essence of introducing entrepreneurial educational programs to school and colleges to equip the students with the necessary skill and mindsets required for effective green entrepreneurship from the early years and also to instill in graduate students across all levels of education, the self-confidence and assurance required for launching green business. Government should make entrepreneurship education a obligatory course in India school and colleges.

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# IDENTIFICATION OF BUTTERFLY DIVERSITY IN E.M.G. YADAVA WOMENS COLLEGE CAMPUS, MADURAI, TAMILNADU, INDIA

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## Abstract

*Among the most noticeable members of Earth's biodiversity are butterflies. These insects are considered to be valuable bioindicators because of their high sensitivity to changes in temperature, humidity, light, and rainfall patterns. Due to the degradation of habitat caused by urban development activities Considering the surroundings and the careless use of natural resources, many native butterflies are rapidly disappearing, and their survival is currently under risk. The objective of the present survey is focused on the assessment of the diversity of butterfly in the study area. In present investigation, during June 2021 to December 2021 a total 20 species of butterflies under 4 families and 15 genera were recorded in E.M.G. Yadava Womens College Campus, Madurai. Nymphalidae was recorded as the most dominant family in terms of number of species, represented by 10 species followed by Pieridae (5), Papilionidae (3) and Lycaenidae (2). The literature suggests that each family of butterflies contributes uniquely to the ecosystem's biodiversity, therefore future planning is necessary to effectively conserve both the butterflies and their host plants, as well as the nectar-food plants. The goal of this study is to support our campus's approach for restoring biodiversity.*

**Keywords:** *Butterfly, Biodiversity, Bioindicators, E.M.G. Yadava Womens College, Madurai.*

## Introduction

Butterflies are generally regarded as one of the best taxonomically studied group of insects. Butterflies are scaled wing insects belonging to the order Lepidoptera of class Insecta. They provide the best rapid indicators of habitat quality. Butterflies are also called the Beauty of the Insect World (Duncan, 1934). India is described as a butterfly paradise by Venkataramani. Some larvae (caterpillar) are useful for weed control as a biological agent in place of herbicides. Among the insects, butterflies occupy a vital position in ecosystems and their occurrence and diversity are considered as good indicators of the health of any given terrestrial biotope. Of late, we are rapidly losing greenery in the name of development. There has also been an alarming rise in industrial and automobile pollution in Indian metropolitan cities with shrinking of greenery and increase in pollution, butterflies, birds and all our wildlife are fast disappearing. The net result is a complete imbalance of the ecosystem and extinction of many species. E.M.G. Yadava Womens College campus which is

located in the rural region of Madurai has a rich canopy to its credit. It is located between latitude and 28.634540 and 77.234170 E longitude. The present survey was aimed to prepare a checklist of the butterflies found in E.M.G. Yadava Womens College campus.

## Material and Methods

Butterflies were primarily identified directly in the field with the help of field guides followed by photography. Classification was done in the light of available literature (Mani 1974) using the standard keys (Akinori et.al. 2004) as well as different websites from the internet. Survey was conducted for a span of six months from June to December 2022 between 9.00 am to 12.00 Noon the active biological hours for butterflies.

## Result and Discussion

Twenty species of butterflies representing four families and fifteen genera have been recorded during the study. The family Nymphalidae and Pieridae was common with ten species in

Nymphalidae families and five species in Pieridae followed by three species in papilionidae and two species from Lycaenidae. The diversity of butterfly especially Nymphalidae is dominant in E.M.G. Yadava Womens College campus. Owing to its large size and vibrant colouration it was easy to spot as many as Nymphalidae species as against Pieridae, Papilionidae and Lycaenidae. Hesperids could not be identified because of their small size and fluttering nature. Therefore, an abundance of butterflies usually indicates a healthier ecosystem. Butterflies also serve as major pollinators of both wild and cultivated plants. With the pressing needs of the growing human

population in India loss of prime habitat is the major threat to all wildlife including butterflies.

### Conclusion

Monitoring butterflies is important for managing biodiversity and establishing conservation objectives. Almost one-third of the known butterfly species are in the Nymphalidae family, which continues to be the biggest representative family during the study period. In addition to baseline data for aspiring researchers, it offers valuable insights into their diversity and offers enough opportunities for additional research in the field.

**Table 1 List of Butterflies Recorded in E.M.G. Yadava Womens College Campus, Madurai, Tamilnadu**

S.No	Family	Scientific Name	Common Name
1	Nymphalidae	Danauschryseus	Plain Tiger
2		Danaus genutia	Striped Tiger
3		Euthalia aconthea	Common Baron
4		Euploea core	Common Indian Crow
5		Junonia iphita	Chocolate Pansy
6		Junonia lemonias	Lemon Pansy
7		Melanitis leda	Common Evening Brown
8		Neptis shylas	Common Sailer
9		Tirumala septentrionis	Dark Blue Tiger
10		Ypthima baldus	Common Five Ring
11	Pieridae	Catopsilia pomona	Common Emigrant
12		Colotis danae	Crimson Tip
13		Eurema andersonii	One Spot Grass Yellow
14		Eurema brigitta	Small Grass Yellow
15		Eurema hecabe	Common Grass Yellow
16		Papilionidae	Atrophaneura aristolochiae
17	Atrophaneura hector		Crimson Rose
18		Papilio polytes	Common Mormon
19	Lycaenidae	Curetisthetis	Indian Sun Beam
20		Prosotas dubiosa	Tailless Lineblue

Plate 1: Photoplate showing Different Species of Butterfly in E.M.G. Yadava Womens College campus, Madurai, Tamilnadu.

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## THE REBELLIOUS JOURNEY OF SURPANAKHA IN KAVITA KANE'S LANKA'S PRINCESS

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### Abstract

*Mythology is a momentous and lively construct of contemporary significance as it could be said to define every experience and emotion of people specially in India. One must have an understanding of our myths and their influence on the people to grasp the complex social, political, cultural and religious context and attitudes of modern India. Myths, has been a predominantly patriarchal discourse which has ignored women, driving them towards the margins. Women writers have now taken a bold step ahead to re-visit mythology by reconstructing, retelling and refolding it from the perspective of a woman. This research paper attempts to analyze Kavita Kane's novel Lanka's Princess, lending a feminist interpretation to the unheard voice of Surpanakha and seeks to reform her position from that of an ugly, adulterous, disfigured ogress in Valmiki's narrative, Ramayana to that of an assertive, bold and a strong woman with a clear voice who has survived hatred, loss and rejection, only to rise up again and fight among the odds around her.*

**Keywords:** *Identity, Desire for Love, Mythology, Patriarchy and Marginalized.*

In India, Mythology has been the basis of many cultures, it is significant that it sparkles and constructs the contemporary significance as it could be said to describe every experience and emotion of people. The impact and understanding of myths influence on the people to grasp the complex social, political, cultural and religious aspects. People still believe in the myths as it a part of our culture in the society among all classes which marginalize the woman to a certain perspective in the patriarchal society.

Kane, in her novel Lanka's Princess gives a feminist inference to the unheard voice of Surpanakha. She reforms her position from that of an ugly, adulterous, disfigured ogress, in Valmiki's narrative, Ramayana to that of an assertive, bold and a strong woman with a clear voice who has survived hatred, loss and has faced denial, only to rise up again and fight.

Kavita Kane known for her Mythological writing all based on Indian Mythology. She is an author of the new era of retelling the stories. The best part of her writing is that she focuses on the women characters who are spanked by their loved ones by their disrespectful behavior.

Marginalisation can be seen from two perspectives – the familial and the societal, each feeding and sustaining the other. Marginalisation starts no where but in our own family itself starting from the birth of an individual. Primarily, a person's birth primarily determines whether one is hegemonic or marginal. The first norms at the societal and familial level is gender. In most societies and families, gender is the first criteria that pushes one to the margin if one is unfortunate enough to be born a woman. But this would seem all too simple a categorisation for, within the umbrella term of marginalisation, there are further layers of discrimination and oppression that unfold and unravel when probed further.

The fiction starts with the birth of Surpanakha, daughter of Rishi Vishravasa and Kaikesi, an asura Princess. Kaikesi attracted the Rishi so that he abandons his first wife and son Kuber. Kaikesi's plan was to get back Lanka's crown from Kuber, for which she needed powerful and wise offspring. Her strategy was as exact as she had planned, as she had three sons Ravan, Kumba, and Vibhishan. When the fourth child was the daughter, Kaikesi expressed her aversion right from birth, "This girl has cheated me

of my plans” (Kane, LP2). The conservative belief that sons are needed for fighting family disputes is rage in the contemporary world. Any girl child is considered a concern to a family and a son is a treasure trove.

Women are often discriminated against based on their physical appearance, particularly the colour of their skin. Surpankha right from birth feels low about her colour of her skin and physical appearance. Kavita Kane presents this in several incidents throughout the novel, Kaikesi questions, “How is this dark monkey going to bring good fortune? (Kane, LP3). Surpankha was very nicely attached to her grandmother Taraka and she asks her, “Can you make me beautiful with one of your potions, Nani?” (Kane, 20). She is disheartening and depresses by her appearances and shares it with her grandmother, “But I am not like either of you, I am darker, like night sky!” (Kane, LP21).

Even in today’s Scenario, it is required that a girl should look fair and pretty. Kane gives an explanation to this problem through Taraka as she counsel, “Beauty lies in your head and heart, you have to believe it. But for that first you have to love yourself” (Kane, 22). After hearing these words, Surpankha highly praised the wisdom of her grandmother. These words are too deep that even in today’s world the young adults need to know that appearance is just a part where knowledge is the most required one.

Surpanakha is originally named Meenakshi- the one with fish-shaped-eyes. Lanka’s Princess is about how she reflects her journey from ‘form’ to ‘formlessness’. It speaks about her mother’s rejection and neglect, her brother, Ravana, darkening her identity, life with her father at his Ashram and finally finding and enveloping herself in her husband’s love. Her journey from being the beautiful-eyed girl to, a girl with sharp claw-like nails, unfolds the peaks and valleys in her life. She wavers between good which is manifested by her father, Vishravas, her husband and, Vidyujiva and her two brothers, Kumbhakarna and Vibhishan, and evil which is personified by her mother Kaikesi and Ravana. From

the bubbling bitterness since birth due to rejection and neglect, to being a loving wife, mother and aunt, She keeps watering her desire for revenge and vengeance due to the injustice inflicted upon her not only by her clan but by outsiders who harmed her. Her mutilation adds fuel to the fire and thus transforms ‘Lanka’s princess’ into a cunning and scheming yet an assertive woman. The novel speaks about her assertion and heightened anger that destroys everything.

Kaikesi, dream shatters as her daughter are a big evil thing to her desires, once when Surpanakha, as a five-year-old gets into a fight to save Vibhishan. Her mother, instead of being praised, her mother snaps at her saying, “Vibhishan is a boy, and he’s older to you. He doesn’t need your protection!” (Kane, LP5) Thus, again and again, in her own clan, Surpanakha is alleged as the powerless ‘other’. Simone de Beauvoir in her monumental work *The Second Sex* explains this attitude towards women by asserting that, “one is not born, but rather becomes, a woman” (249).

Kumbhakarna and Vibhishan are protective towards her but, cannot stand their ground against the power-hungry and self-obsessed Ravana who loathes his sister and derives stubborn pleasure in grudging her of happiness. When Ravana kills her pet, She claws at him which leads to changing of her name from Meenakshi to Surpanakha- a demoness by Ravana which reflects the patriarchal dread of a strong, assertive woman. She, however, assumes this name by saying, “If this could protect me, then well, I am Surpanakha.” (Kane LP8) Further she says, “Yes, I am a monster!” (Kane LP9). Even when her step brother tries to ill treat her she fights back instead of succumbing and hit back strongly with her weapon-her nails; proving her identity with complete acceptance of who she is with lots of courage in her.

Meenakshi finds love and acceptance in Vidyujiva, a powerful rival king who loves her not for her unconventional dark beauty but for her intellect, smartness and might. He cherishes her and addresses her as ‘my tigress’ emphasizing her mental strength as well as, her sexual assertiveness. This is

in contrast with what her mother's derisive remark, "She's scrawny and much darker than me... How is this dark monkey going to bring us good fortune? Noone will ever marry her." (Kane LP3) However, Ravana, suspicious of Vidyujiva's motives, conspiracies death for his own political stability. This murder, in which almost the entire family is involved, triggers Surpanakha's pain and anger which transform sin to acute hatred towards Ravana and drives her towards seeking revenge against her own family. "She was like [a]tigress. If she saw a way out, she would have run. But she was trapped in her grief, churning into fury. My revenge would be my respite. Ravana has to die for this murder" (Kane LP175). She promises herself that she will make life hell for each one her family members and takes an oath to be Surpanakha- determined to seek solace through vengeance. events in Ravana's life and becomes the epicenter of Ramayana, proving her dominance and striding away from the margins. To achieve this, she trains her son, Kumar to fight for her revenge. Unfortunately, his mysterious death leads her to plot Ravana's downfall at the hands of Ram and Laxman.

Surpanaka is treated as the 'other' woman who is perceived as a threat to the patriarchy and thus, by mutilating and disfiguring her, patriarchy proves its discipline. This adds fuel to the raging fire of her vengeance. She therefore, exemplifies the voice that is raised not only against the family which marginalizes her, but also the society that tries to tame her. Seeking revenge, this intelligent woman schemes to employ her disfigurement to instigate

Ravana against Rama which she believes, will bring her solace. Thus, ensues the abduction of Sita leading to the downfall of Ravana and his entire clan. All her plans take a twist as she misses all her loved ones. She cries out loud 'I didn't want Kumbha to die or his young twin sons to, I don't want my Mehnad killed as well. It had been Ravana alone who was supposed to die on the battle field. But, he would be the last to die. Before him, all those whom I had once loved would be sacrificed.'" (Kane LP254).

Kane represents the grieved side of the Surpanakha, where one is made to feel that Surpanakha was more sinned against than sinning. The myth-inspired typical representation of women is manipulative since it blocks any opportunities for women to establish their unique identities. women's identities are put to an end because it fuelled by myths, this sort of oppression is just as depressing as other injustices and tragedies that women must tolerate. The ill-treatment and ignorance undergone during her childhood made Meenakshi transform into Surpanakha with her unheard voice in the society as well as in her own family.

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## A CASE STUDY ON ELIMINATION OF DAUGHTER IN MADURAI DISTRICT: SOCIO-ECONOMIC ANALYSIS

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Geographically Madurai District is located in the Southern part of Tamil Nadu state in Indian sub-continent. It is bounded on the North by the districts of Dindigul, Thiruchirapalli and on the East by Sivagangai and on the West by Theni and South by Virudhunagar. The geographical coordination of Madurai is 9° 56' 20.7348" N and 78° 7' 18.1884" E.. Historically Madurai was an ancient city, the capital of Pandya rule and the classic Tamil language has had its patronage under their administration. Eventhough, the Madurai district has been highlighted in this concern, an alarming issue of aversion on female daughter is identified among a selective group of people in the study area. As per Census 2011, The Sex Ratio of Madurai district is 990. The Child Sex Ration was 932 which is less than Average Sex Ratio (990) of Madurai district.

The daughter elimination is one of the crucial issues in the modern days and it is mainly due to son preference to coup up the future of family customs, social commitments and under development in economic realm. All these factors are totally against the biological equilibrium and the instability causes undesirable effects on humans. The reviews also showed the daughter elimination in the form of female infanticide in Tamil Nadu came to attention of the public due to the continued efforts of media as well as Non-Governmental Organisations.

In the part of Government, policy decision were taken to eradicate the practice of female infanticide and the Government came out with several measures and schemes to eradicate the daughter elimination in the state. The major measures of the State Government included the cradle baby scheme, financial assistance incentives and legal action against the practice of female infanticide through the

tightened laws. However, the practising of negligence over female daughter is being identified in the study area. In this concern, an attempt has been made in this article to assess the real socio-economic causes on female daughter elimination, role of government measures and Non-Governmental Organisations to avert the practice in this district. On the basis of case study, this article tries to exhibit the real socio-economic grounds which tempt them to prefer the male child rather than the women child. Moreover, the study also attempts to bring out some of the vital suggestions to rule out it.

### Area and Objectives of the Study

Madurai district consists of seven taluks. They are Madurai North, Madurai South, Melur, Peraiyur, Thirumangalam, Vadipatti, and Usilampatti. The present study covers almost all the taluks to gather the facts and relevant information connected with the status of discrimination over daughters and the major focus is on the rural taluks of Madurai district. Since, the rural people especially in Usilampatti, Thirumangalam and Melur are lacking behind when compare to the other districts in the context of economic condition. With these backdrop, the study has certain objectives, they are as follows

- a. To identify the socio- economic status of the peoples and what made them to avert the female child.
- b. The role of government in preserving the female child rights and other welfares measures for their well-being in the society.
- c. To assess the recognition of Cradle Baby System among the people and its significance on society.

- d. If there is any traditional causes or conventions behind them for eliminating the female child from their main stream of life.
- e. To identify if there is any novel methods to eradicate the prevailing practise against girl children.

### **Statement of the Problem**

In modern times men and women are treated equally and almost everyone has basic rights and possessed a dignified life without any gender disparity. Every states are adopts their own Constitutions and legal deeds to protect their citizens and for their social welfare. The United Nations has often comes out with several protocols to sustain the gender equality and to nullify the disparity on women. Similarly, the government derives several specific measures for the wellbeing of the women children especially in Tamilnadu a novel system was introduced to prevent the denial of rights and to protect their inherent living rights. Unfortunately, the denial of right to live has been denied immediately after their birth on the basis of gender disparity in some of the pockets of Tamilnadu. However, cases are registered in suspicious manner pertaining to the infant death in some of the districts of Tamilnadu, among which Madurai district is one of the district that seems to be happens in the form of foeticide with the aiding of well- established networks. Hence, the study identified that eventhough government has a strict eagle eye views on it, the infant women babies are still in a critical conditions for their survival and the real status behind it are yet to be identified in this concern. Hence, the study identified that daughter elimination still prevails in Madurai district and therefore reanalysis over this issue is inevitable to protect their inherent rights as that of other fellow human beings.

### **Methodology of the Study**

The present study adopts both descriptive and analytical methodology. Survey method is adopted to derive the data pertaining to the study. Questioners are used for gathering information among the public in randomly especially in the Usilampatti taluk of

Madurai district. Descriptive methodologies are also followed to construct the socio-economic conditions of the people in Madurai district. The Analytical Methodology has been followed to derive the logic construction behind the female daughter elimination in the study area rather than the other districts of Tamilnadu.

### **Background of the Study**

Madurai district consists of heterogeneous community with different socio-economic profile. Among the inhabitants mukulathoor community are seems majority in this district. The mukulathoor community comprises of Maravar, Agamudiyar and PiramalaiKallars. Among them, the PiramalaiKallars have been found majority and scattered almost all the part of the district especially in Usilampatti, Thirumamangalam and Chekkannoorani regions of the study area. Geographically these people are agriculturalist and their land are partially wed-land and lack of irrigation water and hence their economic stability are not stable throughout the year. These instability on economy feels them that they are not in a secure position in the terms of economic condition to manage their regular life. The people historically held the position of self-autonomy with their own administration and non-submissive in nature. Moreover, traditionally they are also martial group and involved in Kaval duty in their region and safeguard the other communities inhabited in their region. On the counter part, they receive income from the other community as kaval fees as remuneration and also considered the Kaval duty as their inherent right, thereby valour being the part of their life. Thus naturally attracts them to have male children to sustain their martial nature and its associated actions. On the other hand, the not happy with the birth of women child, that too, caring of women baby from childhood to adult stage seems to challenge and after getting marriage is also challenge to them in the terms of dowry and the series of issues relating to the dowry evenafter the marriage. Therefore, it's quite normal among them, in the context of disparity on the basis of gender. The socio-economic factors contribute in this region

to neglect the daughter and there is a preference of male baby in the society. In some cases, practise of female infanticide and foeticide are registered in this area for the above said reasons but not as whole in the community. On knowing this, the government come out with a novel measure namely Cradle Baby System to rule out this practise in the society. The major measures of the State Government included the cradle baby scheme, financial assistance incentives and legal action against the practice of female infanticide through the tightened laws. Among these schemes, the cradle baby scheme has been accepted by the social scientist as an opt and alternative against the practice of female infanticide in the state. According to this scheme, the family or parent who thinks of unwanted of female babies or unwilling to bring up their female baby can place them in cradles that are located in either noon meals centres of public health centres. Immediately, after the notification of baby in the Government's cradle, the baby is place to adoption. Of course, this novel cradle baby scheme was introduced initially as in experimental method in Salem district alone. Subsequently, the same scheme was expanded to some selective five districts such as Salem, Madurai, Theni, Dindigul and Dharmapuri in May 2001. Due to not only the opening of numerous cradle points but also the active advertisement of the Government and Non-governmental Organizations in connection with the available cradle points, there was considerable attention of public regarding the female infanticide. Subsequently, the scheme was expanded in all the districts of Tamil Nadu. In the last two decades, the cradle baby scheme has been successfully carried out it has been assessed several times and it is the need of hour to reassess the effect of the scheme in terms of daughter elimination.

#### **Case Study No. I**

Karuppaiyee (age 29), got married at the age of 26 and residing in Usilampatti and have one daughter and no male child, in this circumstance she got pregnant and also aware of the government laws pertaining to infanticide and foeticide. With the help of some untold network herself identified the sex of

the baby as girl baby, later she aborted that child even at the womb level in somewhere around their residential area. In this case, the woman is educated, aware of laws and economically lower middle class has gone on foeticide. While interviewing this woman, she admitted her mistake at the same time equally acknowledged that its not a mistake socially substantiating that "it's better to kill even in the womb or otherwise she has to face the problems right from the day of birth to the end of her life since being a women in birth." The main intention in the view of karuppaiyee is the economic problem faced by the baby while after the marriage in the terms of dowry and to avoid the issues connected with mother-in-law in future.

#### **Case Study No. II**

Nandini (Age 30), resident of Vikramangalam, having two daughters, has pregnant of third baby and she too identified that the carrying baby also girl and therefore she aborted that baby in the hospital. She is also educated, aware of laws and involved in the practise of female foeticide. In this case, she has two daughters and therefore she is in a need of male child for the sake of social equality. While interviewing her, She stated that "Male child will take care of their family whereas female child will couldn't do that and at the same time it's impossible to have a smooth life with three women children and they are in economic constrains even to face their day-today life management." Regarding the Cradle Baby System, "She also don't want to drop her baby in the Cradle Baby system and it's a unjust to her baby throughout her life without father and mother as that of orphan."

#### **Case Study No. III**

Sasikala (Age 32), resident of Tirumangalam, uneducated, married at the age 25, agriculture cooly, has aborted the first child even at the womb immediately identified as girl in hospital which was not recognised in the Indian Medical Association. While interviewing her, she told that "myself faced innumerable troubles while travelling in her career whereas my brother are not so, evenafter marriage iam facing problems from my husband family as well

as my father family, therefore iam struggling in between them and so, the same thing should not happens to my daughter and also quarrelled stating why should I give birth to girl baby”.

### **Analysis on Case Study**

Several samples have been collected during the field visit, among them, only three cases are taken for this study and all these cases are connected with the foeticide. The following observations are derived from the above case study: Generally there is an assumption that woman alone facing problems rather than the men in the society. The women are in condition of need of economic stability to run their life smoothly. The general assumption existed among the people of the study area that Once a girl child is born, then the family would suffers both socially and economically in the society. Moreover, grace over the male child still exists rather than the female child. The practising of female infanticide is not identified in the Madurai district. The study also identified that eventhough the Cradle Baby System has been accepted as a significant measure of the government, hesitation over dropping their baby in the cradle are stopped by their conscious and not showing interest on it, that too, because of loneliness of the child in their ever walk of life.

### **Conclusion and Suggestions**

The study reveals that socio-economic factors are contributing for the daughter elimination in the society. The women are still treated in the inferior or else the second position in society. The study opens rooms to further research in this area to identify the prevalence of this issue in the upper class of the society in the terms of economic factors. The issue

would be wiped out in the society only educating the women and providing more opportunities to stand their own leg with economic stability. The government should establish technical education and skilled oriented training programmes for the enhancement of women empowerment. The government should initiate Non-government organisations to create awareness programmes in massive for ending this social evil and to bring an attitude of the people in the society. The practise of elimination of daughter in the society will resulted with several disequilibrium in the natural law. It degenerate the morality and the social values of the people in the society.

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# A DEEP DELVE INTO AN EPOCH-MAKING SOCIETAL CONCERNS: ABJECT POVERTY AND LAMENTABLE HOMELESSNESS, THROUGH THE PRISM OF GEORGE ORWELL'S DOWN AND OUT IN PARIS AND LONDON AND MULK RAJ ANAND'S COOLIE

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## **Abstract**

*Food, shelter and clothing are the primary requisites in a human's life. Only blessed souls are bestowed with these such facilities, but some people are mithering over futile affairs, while a slew of poor souls are sleeping in the sun and storm without even bed and board. Poverty is a ruthless weapon which has an intense power to even perish a soul. Being homeless is yet another brutish thing in the world. This paper will provide a comprehensive analysis of these two epoch-making societal concerns, by examining George Orwell's Down and Out in Paris and London and Mulk Raj Anand's Coolie.*

**Keywords:** *Poverty, Homelessness, Societal Concerns and Harsh Realities.*

## **Introduction**

Here's a question to the readers; How will be a life without a meal to munch, a cot to nap, a cloth to sport and a roof to board? Well, the answer would probably be 'No'. It would be the most nightmarish thing for all. If people can't even imagine living without a meal to eat, a bed to sleep on, clothes to wear, and a roof over their head for just a day, then just think about the people who are forced into such circumstances and are compelled to live like this. This is the most horrendous truth behind poverty and homelessness in today's society. Statistics states that, over 700 million people worldwide are fighting against extreme poverty and nearly 150 million people were left homeless all over the world. The most distressing fact over here is, new-born babies and children are trying to prevail poverty, amidst these poverty-stricken people. A life with the absence of essentialities like food and housing, dress, electricity and so on is horrible. Do they deserve this kind of life. There is a big question mark over their

future. While other children obtaining education with an ease, the term 'education' has even become a very big dream for those poor children. Above all, the most heart-shattering truth is, 22,000 children perish per day because of extreme hunger and poverty. Being homeless and skirmishing against poverty is the most fiendish bind in the world. George Orwell's semi-autobiographical novel Down and Out in Paris and London and Mulk Raj Anand's Coolie, is a manifest elucidation of how poverty can topple the life of a person. George Orwell and Mulk Raj Anand weaved the story with a profound theme, so that the readers can sense the essence of patheticness from page to page. These two eye-opening novels, written by George Orwell and Mulk Raj Anand, aim to raise awareness about poverty and pacify the suffering of those who are living in poverty. The motive to merge these two works is to underscore the thread of similarity that weaves both the novels, which are nothing but, poverty and homelessness.

### **An Encapsulated Sketch out of the Remarkable Writers**

George Orwell: Eric Arthur Blair, known by his pen name, George Orwell was an English essayist and novelist, who was born in 1903 in India. He was born into an upper-middle class family. George Orwell worked as a police officer in Burma, which was his first job. He began his career as a writer by penning down a novel named *Shooting an Elephant* which was published in 1936. Followed by this, he wrote *Animal Farm* (1945), *Nineteen Eighty Four* (1949), *Burmese Days* (1934) and *Down and Out in Paris and London* (1933). When he died in 1950, he etched his name as a renowned writer to the world. After learning about his contribution in the Spain War, where he got shot in the neck, his experiences of poverty in Paris and London, and his care for impoverished people in Wigan, the world celebrated him. George Orwell won 'Retro Hugo Award for Best Novella' in 1996 and 'Prometheus Hall of Fame Award' in 2011.

Mulk Raj Anand: Mulk Raj Anand was a prominent Indian writer who was born in 1905 in Peshawar. He pursued his education and graduated in 1924 from Khalsa College, Amritsar. He obtained his PhD in Philosophy from Cambridge University in 1929. There are an umpteen number of novels, essays and short stories published from the pen of Mulk Raj Anand. He plays a pivotal role in voicing out for the voiceless lower-class people. His concern for them took the form of his writings. Especially in Literature, he contributed a shedload of works for the sake of the poorer class. *Coolie* (1936), *The Village* (1939), *Across the Black Waters* (1939), *The Sword and the Sickle* (1942) and his memoir *Seven Summers* (1951) are the most striking works from his pen. He won 'Padma Bhushan' in 1968 and 'Sahitya Akademi Award' in 1971. This remarkable writer deceased in 2004.

### **A Laconic Outline of Down and Out in Paris and London and Coolie**

*Down and Out in Paris and London*: The novel opens with a pathetic episode in Paris, where the Protagonist George Orwell wandering all over Paris,

hunting for jobs, but he couldn't find a proper one. He was impelled to find a job for himself, because he was literally starving and homeless. At this point of time, he met his long-time friend Boris, and he was badly astonished to find out that, his condition was more distressing than him. Poverty hit him hard, and he was too feeble to even walk. Orwell and Boris joined hands to search for jobs and eventually they ended up in a hotel, where Boris served as a server and Orwell was assigned to be a plongeur, which is nothing but the person who washes the dishes. Orwell's job was mentally and physically an exhaustive one. He has to do a fretful cleaning, scrubbing the dishes and brushing in the blistering heat of a kitchen basement. Orwell and Boris resigned and manage to score identical positions at a Russian restaurant. Here Orwell floundered than before, because the new kitchen is even more cramped and he was forced to work eighteen to twenty hours a day. He worked like a hell, gobbled something, got some nap and this round-a-clock schedule persisted daily. Due to his exhaustion, Orwell relocated to London for a babysitter job, but to his misfortune, the family went on vacation for a month. Orwell borrowed some pennies for a temporary survival. But when he ran out of his last penny, he was left homeless. He sojourned with the homeless people in the streets for a few days without proper bread and butter. Finally, Orwell was happy to know the family will be returning in a week and his insolvent deprivation came to an end. He bids goodbye to his homeless companions, who were destined to continue living that way indefinitely. The novel closes by leaving the readers with an impression of misery, by Orwell's words that none should sense the taste of poverty.

*Coolie*: The novel chronicles the life of Munoo, a fourteen-year-old orphaned boy who was residing in Kangra hills, Bilaspur with his uncle and aunt. There he was coerced to work for his own living, so he served as a servant to a bank clerk, Babu Nathoo Ram. But there he was ill-treated by Babu's wife. The only person who is concerned about Munoo is Prem Chand, Babu's brother, a Doctor. Munoo

inadvertently harmed Babu's daughter Sheila, which leads to him being battered and pushed him to quit the job. Prabha, who owned a pickle factory, hired Munoo in Daulatpur, which marked the beginning of his next melancholic episode. But a hardship broke out there. Prabha's business partner Ganpat backstabbed him and left him with debts. Again poverty chased Munoo, he ran away from there. At this time, Munoo accidentally bumped into an elephant driver, joined hands with him, and set his foot in Bombay. At first, Munoo was enthralled by the life in Bombay, but he soon discovered the city's dark side and grew weary. He landed up working in George White's cotton mill. There Munoo forms a friendship with Ratan, a wrestler who was admired by Munoo for his valour. However when workers went on the rampage and wrecked the mill, Munoo was left jobless once again. When we was wandering with a fret, he was hit by Mrs. Mainwaring's car. To compensate this, Mrs. Mainwaring took him to Simla and appointed him as her servant. The novel has a disconsolate ending by Munoo's death at the age of fifteen due to tuberculosis.

### **Abject Poverty and Lamentable Homelessness from the Slant of George Orwell's *Down and Out in Paris and London* and Mulk Raj Anand's *Coolie***

"To be shelterless and alone in the open country, hearing the wind moan and watching for day through the whole long weary night; to listen to the falling rain, and crouch for warmth beneath the lee of some old barn or rick, or in the hallow of a tree; are dismal things, but not as dismal as the wandering up and down where shelter is, and beds and sleepers are by thousands; a houseless rejected creature" (Charles Dickens' *Barnaby Rudge: And, Hard Times*, p. 90). Profound cum poignant words from the pen of Charles Dickens. As Dickens stated in this quote, it is literally the most vicious thing to witness poor souls roaming around in this unfettered world without proper sustenance, their sensitive skin sensing the scorching sun and down pour, hearing the wind howling, faintly discerning the day and night, these doomed souls are bush whacked to the hilt that their

hands and legs became feeble to move further, spent their sleepless nights in the roads, searching for a shaft of hope in this hopeless society and anticipating a streak of love from the heartless people. Do they deserve a life like this?

People are running and racing amidst the hustle and bustle of the world. Today's society is plenshed with competition, rivalry, envy, distrust, and grievance. Mankind squandering their valuable time over these such futile matters and they don't even have time to think about these abandoned and houseless souls. They fritter money on pointless things, but they ponder to lend helping hands to these dejected souls. Opulent people are oblivious to the realities of poverty, while those from the upper-middle class are skilled at protecting themselves from destitution and always feel secure. However, the penurious people, a group of individuals who have fallen victim to poverty, find themselves abandoned on the roadside. Life is not just a piece of cake for all; when having a sumptuous meal is a casual and habitual action for the humankind, it is a dream for some desolate souls. This is what George Orwell and Mulk Raj Anand depicted in their masterpiece works *Down and Out in Paris and London* and *Coolie*.

*Down and Out in Paris and London* is a semi-autobiographical work which chronicles the life of George Orwell. He framed the novel in such a way that readers would acknowledge the tribulations of the poverty-stricken people. The story is all about how poverty blemished the life of George Orwell. In accordance with the title, George Orwell is incessantly seeking for a proper job in both the cities. George Orwell worked as a plongeur in a restaurant in Paris, where he toiled relentlessly, but despite his efforts, he earned an insufficient amount of money that couldn't even cover his basic expenses for a few days. Next, he agreed to work in a Russian restaurant, where they demanded that he overwork himself more than before. He was stonkered and left to London, but unfortunately London welcomed him with even more setbacks. He was appointed as a baby-sitter, but his master's family went on a

vacation for a month. He was penniless and dwelled in the streets. Orwell was literally left homeless until their comeback. The novel closes with the strongest words of Orwell that never again in his life he wants to get into such a plight and none should encounter these such hardships.

Poverty is conspicuously evident in his life, through his forlorn experiences in Paris and London. Poverty pushed him into a life filled with predicaments. This novel by Orwell also revealed the harshness of poverty. Throughout the novel, the impact of poverty is portrayed through his own character. Snags startled him in each and every step of his life. He clearly stated that being homeless is the worst thing in the world. At the end of the story he bids goodbye to his street mates, a profound message was hidden behind this scene; Orwell is going to kick-start a fresh phase but, those cursed souls are fated to sustain the street life forever. Through this novel, Orwell raised a question; fate might change for some people but, what about the fate of those who are residing in streets?

“The rich and the poor are differentiated by their incomes, and nothing else.” (George Orwell’s *Down and Out in Paris and London*, chapter 22). This is the crux of the story, as George Orwell quoted, there is no diversity among the humans, the prime fact that segregates the mankind is money. Money plays a pivotal role in everyone’s life, people’s ultimate want is money, and they are chasing it with avidity. Those who attain it are rolling in doughs and those who fail to take in are strapped for cash and hardly hit down by poverty. People like Orwell, live among the poor. Like Orwell, they push themselves to work tirelessly to earn a living wage. Their family circumstances force them to accept demanding jobs, regardless of their exhaustion. It is inconceivable for them to give up their work. This is a harsh reality behind poverty. As long as they exist, those doomed souls are destined to persistently skirmish against poverty and fated to lead such a cursed life.

Coolie is a trailblazing work, where Mulk Raj Anand elucidated how poverty can even annihilate a life. Mulk Raj Anand painted Munoo’s character with

utmost profundity to manifest the devilish nature of poverty. The protagonist Munoo, a fourteen-year-old boy is foraging for a proper job. An orphaned kid who’s dwelling with his uncle and aunt in Kangra hills, Bilaspur. Throughout the story, his job hunting continues, but he ends up with nothing. He then finds himself in Daulatpur, where he gets a job at Prabha's pickle factory. However, Prabha is burdened with debts and Munoo is forced to flee from there. Next Munoo set foot in Bombay, where he worked in George White’s cotton mill, but he was left jobless once again, when a workers riot broke out there. Finally, he ended up in Simla, where he fell victim to tuberculosis and kicked the bucket.

Poverty and Homelessness are palpably evident in Munoo’s life. This novel is a writ large portrayal of a deep message that, poverty is a disease that can even perish a soul. Poverty made Munoo, a derelict and nipped his life in the bud. As the readers can see, Munoo is ceaselessly casting about for jobs, but all his exertion went down the drain. After leaving his native village, Munoo was appalled to cognize the maltreatment of the society towards him. He was dismayed to witness how rich people mis-utilizes their authority to devastate the life of poor. Munoo's childhood was robbed by poverty, and his life ceased as a servant. The society would have served him better if he was born with a silver spoon. Education is the weapon that can transform one’s life from nothing to something, but poverty obstructed Munoo from receiving a rudimentary education. He dreamt of securing a prestigious position in the society, but poverty clipped off his wings and his life was propelled into gloominess, his whimper fell on deaf ears. They denied him his talents and shut down opportunities, just because he belongs to the lower class.

There are many Munoo's in this horrendous society, who are wandering in search of basic needs, and they are ignored by the elite class. Like Munoo, an umpteen number of children’s future are put in jeopardy. Their future has no certainty. The elite class people are using the poor people as a bait to elevate their lifestyle. Being born as a poor is the only



mistake they committed. Munoo is a typical representation of children who are on the breadline and who has unpredictable future. Munoo's living amidst the elite society are fighting a losing battle, they are striving to prevail over poverty, but the rich becomes richer by stamping them under their feet. The pain of hunger and the loss of hope is reflected in the tearful eyes of the destitute souls. Those impecunious and homeless souls are searching for a streak of silver lining in the dark clouds, that one day their fate might change. And people who belong to the social status must lend their hands to wipe out their tears and bring sunshine into their lives.

The reason to conflate these two novels is to accentuate the similitude that connects both the novels, which is nothing but an epoch-making societal concerns, abject poverty and lamentable homelessness. The other motive to compare and contrast an English and an Indian novel is to spotlight a fact that poverty has no boundaries, it is a contagious disease that can cross the border lines to infect each and every country in the world. It is mankind's responsibility to make their country free from poverty.

### Conclusion

"Poverty is the absence of all human rights. The frustrations, hostility and anger generated by abject poverty cannot sustain peace in any society" (Muhammad Yunus' *Creating a World Without Poverty: Social Business and the Future of Capitalism*, p.239). Such poignant words from the pen of Yunus that evoke the miseries of people distressed by poverty in the heart of the people who reads it. As Yunus stated, poverty was born in the absence of humanity, the existence of poverty kills

the presence of peace. People are using shampoos and soaps that contain expensive fruits, but for those who are staying in streets haven't even seen such fruits in their lifetime. This is how the society functions. People who are dwelling in opulent houses ponder to help the needy; those who satiate their stomach with sumptuous meals, doesn't even give a thought about feeding the poor; those who slumber in cozy couches, forgets that some deserted souls in the streets are slumbering in frigid and sultry weather. People are nonchalantly splurging out for a meal at exorbitant restaurants, but they don't know, the amount they fritter can satiate some poor stomachs for a month. It doesn't mean that humans should not relish their life. People think that happiness is all about frittering the money excessively on costly food, clothing and other things, but the genuine happiness is born in the eyes and smile of the souls whose hunger is quenched because of them. It is humans' sheer responsibility to uplift the life of the poor and create a poverty-free world. It is not that only rich people can alleviate their hardships, a person with a compassionate heart is more than sufficient to assuage their grief.

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# EXPLORING SUSTAINABLE ORGANIC FERTILIZER PRODUCTION FROM AGROINDUSTRIAL WASTES: AN INTEGRATED APPROACH

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## Abstract

India is the world's biggest producer of sugar, with 464 sugar mills and 319 molassesfactories operating throughout the production season. Significant amounts of organic waste (press mud, bagasse, molasses, sugarcane debris, and molasses-based distillery waste effluent) are produced by based distilleries. Approximately 40 million tonnes of cane waste, 10.0 million tonnes of press mud, and there are more renewable energy sources used in the production of 40.40 x 10<sup>10</sup> of effluent annually. As trash, these energy resources are released onto land or into nearby bodies of water, especially untreated, and are one of the main sources of pollution in the environment. These agroindustrial wastes disposal and environmentally responsible management have grown to be major worldwide issues. Press Mud (PM), Sugarcane Trash (ST), and Biomethanated distillery Effluent (BE) are highly available and underutilised agroindustrial wastes that can be vermicomposted using six different proposals (1000 g PM + 0 g ST + 790 ml BE, 900 g PM + 100 g ST + 740 ml BE, 800 g PM + 200 g ST + 696 ml BE, 700 g PM + 300 g ST + 655 ml BE, 600 g PM + 400 g ST + 625 ml BE, and 500 g PM + 500 g ST + 542 ml BE). During this process, the earthworm activity, *Perionyxexcavatus*, was studied in terms of mortality, biomass, hatchling, and vermicompost recovery. All treatment proportions showed a noticeable and improved earthworm activity; however, 800 g PM + 200 g ST + 696 ml BE showed a greater amount of earthworm activity than the other treatment proportions. Rich cellulose, OC, N, P, microbial activity, and increased water-holding capacity all appear to be responsible for this. Ultimately, the combination of agroindustrial wastes-press mud, sugarcane waste, and biomethanated distillery effluent-will enable *P. excavatus* to more effectively vermicompost and be employed in vermiculture and vermicomposting techniques.

**Keywords:** Agroindustrial Wastes, *Perionyxexcavatus*, Vermicompost, Pressmud, Sugarcane Trash, Biomethanated Distillery Effluent.

## Introduction

One recycling method that works well and uses little energy is vermicomposting. It involves earthworms that collect organic fertiliser from organic wastes from industry, agriculture, and cities. The viability of employing earthworms as a possible source of protein for animal nutrition and waste management hinges on having a basic understanding of the variables affecting the survival, development, and reproduction of earthworm species. The fertility of earthworms was determined by the food's quality and accessibility. (Neuhauser et al, 1979; Edwards et al, 1998; Bhattacharjee, 2002). Additionally, it has been noted that the kind and quantity of food items available affect the size, species variety, growth, and fertility of earthworm populations. It has been demonstrated that earthworms need food high in

cellulose, nitrogen, and microbes for development and reproduction. (Hartenstein and Bisesi, 1989; Ranganathan and Parthasarathi, 1999).

Numerous writers have examined the life cycle of *Perionyxexcavatus*, a tropical species of composting earthworm. In controlled laboratory settings with varying moisture and temperature regimes. (Kale et al, 1982; Reinecke and Hallatt, 1989; Hallatt et al, 1990; Edwardset al, 1998; Biradaret al, 1999; Chaudhuri and Bhattacharjee, 2002; Parthasarathi, 2007a). Hallatt et al. (1990) investigated the growth rate, rate of maturation, cocoon formation, the success of cocoon hatching, the incubation duration, and the number of offspring per cocoon. According to Biradar et al. (1999), who examined the seasonal fluctuations in the development and reproduction of *P. excavatus* grown

in cow dung, this species appears to be the most promising one for vermicomposting in tropical environments. It is very easy to handle and harvest, and it is widely used in vermiculture. Unfortunately, our understanding of the proper diet for the proper kind of earthworm for large-scale vermiculture-a must for vermicomposting-is insufficient in the context of tropical nations, especially India. The primary goals of this study are to identify the optimal mixes of industrial sugar wastes to promote the highest growth, cocoon formation, hatchling rate, and vermicompost recovery in *Perionyx excavatus*, an epigeic worm species.

## Materials and Methods

### Collection and Preparation of Agroindustrial Waste Materials

Two months old, cured, and odourless PM and BE were gathered at various periods of the year from the E.I.D. Parry (I) sugar mill located in Nellikuppam, Cuddalore district, Tamil Nadu, India, for the experimental research. The dried sugarcane waste was gathered from the Mandhikulam Madurai area in Tamil Nadu, India, which is an experimental sugarcane plantation. The PM and chopped ST (>3 cm) were well mixed after being weighed (dry weight) in the specified amounts. The PM and chopped ST (>3 cm) were well mixed after being weighed (dry weight) in the specified amounts. By adding BE to each treatment, the substrates (PM and ST) were brought to a moisture content of 65-70%, which was then continuously maintained for 60 days. The necessary millilitres of BE per kilogramme of substrates are indicated in Table 2 to achieve 65-70% moisture concentrations in the substrates.

After 96 hours to stabilise, the experimental animals were injected into the substrates (PM, ST, and BE) (T1-T6). A plastic trough of 32 cm in diameter and 20 cm in height was used to hold one kg of 96-hour stabilised substrates (T1-T6) at a temperature of  $31 \pm 2$  C and a relative humidity of 65% (Thermo-Hygrometer, Germany). Every trough has holes on the sides and bottom to allow for unrestricted airflow and prevent any standing water. The trough was kept in the lab under the previously

described conditions for sixty days after being covered with nylon mesh. Each treatment's experimental bedding was maintained in triplicate.

### Collection and Inoculation of Earthworm

The collection of *Perionyx excavatus* was done from the Department of Zoology's stock culture at Annamalai University in Chidambaram, Tamil Nadu, India. Each plastic trough contained 15 g of sexually immature preclitellate *P. excavatus* (36 numbers, 15-18 days old). Throughout the 60-day trial, no extra substrates were fed to the worms.

### Activity of *Perionyx excavatus* in the Vermibeds

For a period of 60 days, the mortality percentage (%) of the worms was recorded each morning in each treatment. Before the animals were injected into each treatment substrate and after the experiment (60 days), the growth of the worms (biomass in wet weight) was measured using an electronic balance. Using a manual sorting approach, the reproductive characteristics, such as the quantity of cocoon production and hatchlings, were counted on the sixtyth day (Parthasarathi, 2007a). On the sixtyth day, the vermicompost was gathered and weighed by hand sorting (Parthasarathi, 2004).

## Results

Table 2 shows the earthworm activity, including growth, death, cocoon formation, hatchling count, and recovery of vermicompost by *P. excavatus* raised for up to 60 days on various combinations of agroindustrial wastes (T1 – T6). When *P. excavatus* was added to the precomposted T1-T6 agroindustrial waste treatments during the vermicomposting process, it was discovered that there was no worm mortality in any of the treatments. Table 2 provides an overview of the rates of biomass growth, hatchling production, and vermicompost recovery for *P. excavatus*. The greatest rates were seen in T1, T3, and T2 treatments, and were lower than those found in T4, T5, and T6 treatments.

**Table 1 Description of Agroindustrial Wastes for Experiment**

Treatments	Substrates			
	Description	PM (g)	ST (g)	BE (ml)
T <sub>1</sub>	10:0	1000	0	790
T <sub>2</sub>	9:1	900	100	740

T <sub>3</sub>	8:2	800	200	696
T <sub>4</sub>	9:3	700	300	655
T <sub>5</sub>	8:4	600	400	625
T <sub>6</sub>	7:5	500	500	542

PM – Pressmud, ST – Sugarcane trash, BE – Biomethanated distillery effluent.

**Table 2 Earthworm (*P. excavatus*) Activity during Vermicomposting of Agroindustrial Wastes (n=6)**

Treatments (vermibeds)	Mortality (%)		Biomass (g)		Cocoon production (number)		Hatchling (number)		Recovery rate of vermicompost (g)	
	Initial (0 day)	Final (after 60 days)	Initial (0 day)	Final (after 60 days)	Initial (0 day)	Final (after 60 days)	Initial (0 day)	Final (after 60 day)	Initial (0 day)	Final (after 60 Days)
(PM+BE)*	-	-	15.2 <sup>a</sup>	38.6 <sup>c</sup>	0	142 <sup>c</sup>	0	184 <sup>c</sup>	0	692 <sup>c</sup>
(PM+ST+BE)*	-	-	15.5 <sup>a</sup>	35.2 <sup>c</sup>	0	116 <sup>b</sup>	0	172 <sup>b</sup>	0	677 <sup>b</sup>
(PM+ST+BE)*	-	-	15.4 <sup>a</sup>	36.4 <sup>c</sup>	0	131 <sup>c</sup>	0	179 <sup>c</sup>	0	683 <sup>c</sup>
(PM+ST+BE)*	-	-	15.6 <sup>a</sup>	33.1 <sup>b</sup>	0	104 <sup>b</sup>	0	164 <sup>b</sup>	0	612 <sup>b</sup>
(PM+ST+BE)*	-	-	15.0 <sup>a</sup>	30.2 <sup>b</sup>	0	88 <sup>a</sup>	0	148 <sup>a</sup>	0	555 <sup>a</sup>
(PM+ST+BE)*	-	-	15.1 <sup>a</sup>	26.4 <sup>b</sup>	0	67 <sup>a</sup>	0	121 <sup>a</sup>	0	442 <sup>a</sup>

**ANOVA (Two-Way)**

Substrates					
Sum of squares	-	81970.28	34992.00	78085.33	1116910.08
Mean of squares	-	6985.18	615.50	243.50	1901.58
F-value	-	486.87	90.983	283.80	233.68
P-value	-	0.000	0.000	0.000	0.000
Treatments					
Sum of squares	-	1851.94	1923.00	1375.66	23897.41
Mean of squares	-	168.359	384.60	275.13	4779.43
F-value	-	1.000	1.000	1.000	1.000
P-value	-	0.500	0.500	0.500	0.500

PM – Pressmud, ST – Sugarcane Trash, BE – Biomethanated distillery effluent;\* For treatment (bedding) composition see in table 1.

The mean value followed by different letters is statistically different (ANOVA; Duncan multiple-ranged test, P<0.05)

Earthworm biomass rose considerably (P<0.05) in all treatments (T1-T6) when vermicomposting agroindustrial wastes employing *P. excavatus*;

however, the T1 treatment produced the highest overall rate of biomass production, followed by T3 and T2. Similar to earthworm development, the mean generation of cocoons differs among treatments. Earthworms raised on the T1 treatment, followed by the T3 and T2 treatments, showed considerably ( $P<0.05$ ) higher cocoon formation than the other treatments among the six treatments. Additionally, the T1 treatment showed the greatest rates of hatchling number ( $P<0.05$ ), followed by the T3 and T2 treatments, compared to the other treatments. Vermicompost recovery was considerably ( $P<0.05$ ) greatest in the T1 treatment, followed by T3 and T2 treatments, compared to other treatments, similar to the growth and reproductive performance of *P. excavatus* cultivated on the 6 distinct treatments.

### Discussion

Vermicomposting is also taken into account when analysing patterns of earthworm biomass production, cocoon and hatchling counts, and vermicompost yield. The organic waste's quality is also a factor that determines the vermicompost's recovery rate (Parthasarathi, 2010) and the beginning and rate of reproduction (Dominguez *et al.*, 2001). Murchie (1960) showed through experimentation that there is a substantial correlation between weight gain and the kind of substrate, which can be plausibly linked to the substrate's nutritional value. According to Evans and Guild (1948), earthworms need OC, N, and P for growth and reproduction. These elements can be found in grit, litter, and microorganisms (Flack and Hartenstein, 1984; Edwards and Bohlen, 1996; Parthasarathi and Ranganathan, 2000b; Parthasarathi, 2010). Previous research by Ranganathan and Parthasarathi (1999) and Parthasarathi and Ranganathan (2000b) has demonstrated that pressmud's higher nitrogen (1.6%) and phosphorus (2.5%) content supports better growth (longitudinal and biomass) and results in earlier maturation, clitellum differentiation, ovarian lobulation, and cocoon release in worms fed cowdung or clay loam soil. In the current study, T1, T3, and T2 had the greatest biomass, number of cocoon production, number of hatchlings, and vermicompost recovery

rate, with the other treatments following suit. Particularly in the T3 treatment, *P. excavatus* showed the greatest biomass along with increased production of cocoons, hatchlings, and vermicompost.

By means of aeration and bioturbation, earthworms expedite the conversion of organic waste materials into more stable forms. Their excreta and quali-quantitative microflora (Loquest and Vincelas-Akpa, 1997). Epigeic earthworms are useful in a variety of industries, including paper and pulp (Elvira *et al.*, 1998), dairy (Gratelly *et al.*, 1996), sugar industry (Parthasarathi, 2007b, 2010), winery and distillery (Nogales *et al.*, 2005), wood and wood chips (Maboeta and Van Rensburg, 2003), textile mills (Kaushik and Garg, 2004), oil (Benitez *et al.*, 2002), power (fly ash) (Gupta *et al.*, 2005), guar gum industry (Suthar, 2007), and distillery industry (Suthar and Singh, 2008). The stability of the tested substrate throughout the vermicomposting process is primarily dependent on the following factors: a fold increase in critical plant nutrients, a decrease in toxicants, earthworm biomass and reproductive performance, and even minimal or no mortality in the tested earthworm species. Using mostly readily accessible native epigeic earthworms, *P. excavatus*, for vermicomposting of agroindustrial wastes (PM-ST-BE), no earthworm mortality was observed in any of the vermibed treatments (up to 60 days) in the current study. This shows that the vermibeds have a suitable and appropriate microbiological and biochemical environment and are free of any harmful substances. The current finding is comparable to that of Suthar and Singh (2008), who found no earthworm mortality when vermicomposting sludge from the distillery business combined with cowdung employing *P. excavatus*.

The chemical makeup of organic waste directly influences how palatable it is to earthworms, which in turn impacts their capacity to grow, reproduce, and recover compost. variable earthworm species and various organic wastes have variable rates of earthworm growth (total biomass): Cultures of *E. eugeniae*, *P. excavatus*, and *E. fetida* on cowdung increased at a rate of 12 mg/w-1/d-1, S.Smg/w-1/d-1,

and 7 mg/w-1/d-1, respectively (Reinecke et al, 1992); *E. eugeniae* and *L. mauriti* on pressmud increased at a rate of 15 mg/w-1/d-1 and 4 mg/w-1/d-1, respectively (Ramalingam, 1997); *E. andrei* on sludges from the paper and pulp industries increased for a total of 70 days (Elvira et al, 1998), and *P. excavatus* on kitchen wastes increased by 2.47mg/w-1/d-1 (Chaudhuri and Bhattacharjee, 2002) for a total of 150 days. Consistent with these findings, the current study (limited to 60 days) also found that the increased nutrient content of PM-ST-BE, specifically T3 treatments (micro and macronutrients and microbial population), was supporting increased biomass growth in earthworms.

Similar to worm growth, the average rate of cocoon production varies amongst earthworm species and organic wastes. For example, *E. eugeniae* on cattle manure has been shown to produce 1.3 cocoons/w-1/d-1 after a year (Viljoen and Reinecke, 1994); on sludge, 0.1 cocoons/w-1/d-1 after a year (Neuhauser et al., 1979); on pressmud, *E. eugeniae* and *L. mauriti* produce 1.4 and 0.38 cocoons/w-1/d-1, respectively, (Ramalingam, 1997), while *E. andrei* on sludges from paper and pulp industries (for 70 days) produced 0.22 cocoons/w-1/d-1 (Elvira et al., 1998). According to Edwards et al. (1998), the mean weekly cocoon production rate for *P. excavatus* at 30°C was found to be 2.03 in digested sewage sludge and cow solids and 0.98 in the latter. The current study discovered that T1 and T3 therapies, followed by T2 treatments, were the most effective for producing cocoons compared to other treatments.

The hatchability rates of various earthworm species cultivated on various organic wastes exhibit wide fluctuations: 2.45 for *P. excavatus* on cowdung and 1.37 for *P. excavatus* in kitchen wastes (cultured for 105 days) (Chaudhuri and Bhattacharjee, 2002); 2.7 for *E. fetida* in cattle manure (cultured for 150 days); 2.2 for *E. eugeniae* (cultured for one year) (Viljoen and Reinecke, 1994); and 2.63 and 3.15 on pressmud (cultured for one year) (Ramalingam, 1997). Consistent with previous research, the T1 and T3 treatments yielded the highest number of

hatchlings among the six agroindustrial waste treatments over the 60-day culture period in the current study. These treatments were then followed by the T2 treatments.

The present study suggests that the T3 treatment's ability to maintain optimal moisture levels is facilitated by its rich cellulose content, microbial population and activity, and enhanced water-holding capacity (39–41%). These factors may also account for the enhanced growth and reproduction observed in T1 and T3 treatments following other treatments. It is common knowledge that earthworms require both soil moisture and organic materials high in nitrogen for both development and reproduction (Edwards and Bohlen, 1996; Parthasarathi, 2010). The chemical makeup of the ingredients, especially the organic matter rich in nitrogen, determines the physical structure of the T3 treatment substrate. Earthworms can only reproduce in this sort of substrate, known as a vermicomposting medium. Such perfect physicochemical conditions are made possible by the T3 treatment, allowing for improved development and maximal reproduction. Therefore, even though PMST-BE are slowly degrading and have poor nutritional value, the T3 treatment's high cellulose content helps it retain more water and become more palatable and nutritious (rich in OC, N, and P as well as microbial population), which promotes better growth, reproduction, and compost recovery. The higher N, P, OC, and microbial content of pressmud has been demonstrated in earlier studies by Ranganathan and Parthasarathi (1999), Parthasarathi and Ranganathan (1999; 2000a), and Parthasarathi (2010) to support better growth, reproduction, and more vermicompost production of *L. mauriti*, *P. excavatus*, *Eudriluseugeniae*, and *Eiseniafetida*. This was corroborated by reports from Kale (1998), Edwards and Bohlen (1996), and Suthar (2007a) that the physicochemical and nutritional properties of waste feedstocks may also be taken into account when analysing the parameters pertaining to earthworm development, reproduction, and compost formation.

The chemical makeup of organic waste directly influences the earthworms' capacity to eat it, which in turn impacts their ability to procreate and produce compost. According to the findings of Garg et al. (2005), Suthar (2007a), and Parthasarathi (2007b; 2010), the quality of the feed supply had a direct impact on the growth and reproductive performance of *E. fetida*, *P. sansibaricus*, and *P. excavatus*. According to Edwards et al. (1998) and Suthar (2006), there must be a connection between the waste's quality and the notable variation in the rates of cocoon generation between the two organic wastes. The varying rates of earthworm biomass increase and reproduction in various treatments were likely influenced by the chemistry, microbiology, and palatability of the feeding material. The variations in cocoon formation patterns between treatments point to a physiological trade-off associated with N-limitations (Streans, 1992). Lately, it has been shown by Sudhar (2007a) and Parthasarathi (2007b; 2010) that the initial N-content of the substrate influences the development, reproduction (cocoon and hatchling production), and vermicompost production of earthworms. Our current experimental findings support the previous theory. In conclusion, our experimental observations suggest that *P. excavatus* could more effectively vermicompost 800 g + 200 g and 696 ml of agroindustrial wastes, such as press mud, sugarcane trash, and biomethanated distillery effluent, for use in vermiculture and vermicomposting techniques. Additional research is required to evaluate the nutrients in vermicompost in a qualitative and quantitative manner, as well as to produce it on a big scale and apply it to soil fertility and crop productivity.

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## DEPICTION OF CULTURE AND FEMINISTIC PERSPECTIVE IN CHITRA BANERJEE'S NOVELS, *THE PALACE OF ILLUSIONS* AND *THE MISTRESS OF SPICES*

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### Abstract

The present research article examines the concept of feminism and illustration of culture in the select novels of Chitra Banerjee Divakaruni. The writer reconstructs the story of Draupadi and she discusses the themes like, love, marriage, revenge and death. Banerjee has retold the study of feminism in her writings and rendering to her feminism is an emotional segregation of women which paves way to the development of a female world. Banerjee portrays the Indian woman's position after marriage and she remark that woman is not a toy in the hands of a male to be used according to their convenience. The novel, *The Palace of Illusions* is written in the first-person narrative, giving Draupadi's own thoughts and ideas in her own life. Draupadi is a fiery female redefining for us a world of warriors, gods and the ever-manipulating hands of fate. In the novel, *The Mistress of Spices*, Banerjee offers a more complex portrayal of diasporic identity. The unique revelation of characters inner thoughts and feelings adds a significant emotional dimension to this novel. In all her works, Chitra Banerjee demonstrates women as a warrior and she discoursed many problems confronted by women in their life. She hopes that readers would view the female characters in these novels from the feminist point of view after reading these novels.

**Keywords:** *Feminism, Culture, Identity, Tradition, Customs, Patriarchal System Society.*

Chitra Banerjee Divakaruni is an Indo - American author and worked as a professor of English in the university of Houston. She is also an award-winning writer in Diaporic literature. She has written number of poems, short stories and novels. Her significant novels are, *The Mistress of Spices* (1997), *Sister of My Heart* (1999), *Queen of Dreams* (2004), *The Vine of Desire* (2002), *The Conch Bearer* (2003), *The Mirror of Fire and Dreaming* (2005), *The Palace of Illusions* (2008), *One Amazing Thing* (2010) and *Oleander Girl* (2013). She is an expatriate writer and she always portrays the Indian womanhood and how they are treated by men in the society. Divakaruni's novel mainly addresses the cultural issues and feministic aspects from the point of view of the female characters in her novels. Now a days many modern writers have started to focus on the position of women as a responsible person in a family and mention the social restrictions which are imposed upon them. On the other side, the author highlighted that how they are religiously manipulated by their own family itself. Actually, they try to break all the

barrios in the name of customs, tradition and culture.

Banerjee has created a different world of feminine consciousness in the background of cultural displacement and she portrays the issue of national consciousness also. Many Indian Women writers like Jhumpa Lahiri, Kiran Desai and Chitra Banerjee Divakaruni have examined the identity crisis of women and their struggle to get their identity in the society. In the ancient days, woman was not allowed to go outside and not to get education. They were supposed to do all the domestic works and she had to sacrifice herself for her parents, husband and children. Even she had no equal rights with men. As a human being, she too endowed with feelings like, joy, sorrow, passions and ambition.

Here, in the novel, *The Palace of Illusions*, the author reconstructs the story of Draupadi and she discusses the themes like, love, marriage, revenge and death. The author has retold the study of feminism in her writings. According to the author,

feminism is an emotional segregation of women which paves way to the development of a female world. Banerjee brings out the different aspect of feminism. Women wishes and desires are never get completed and they are in the state to adjust with the situation. Even many times her inner feelings and thoughts suppressed by herself. It highly reveals the position of an Indian woman. This kind of concept is highlighted through the character, 'Draupadi' in the novel, *The Palace of Illusions*. Banerjee mentions about the quality of virtuous women through the following statement,

Virtuous women were sent directly into their next birth, where if they were lucky, they reincarnated as men. But I thought that it lokas existed at all good women would surely go to one where men were not allowed so that they could be finally free of male demands (PI, 155)

Chauhan states about women in 'Lengthening Shadows',

The women of today are in a fair way to dethrone the myth of femineity; they are beginning to affirm their dependence in correct ways; but they do not easily succeed in living completely the life of a human being. Reared by women within a feminine world, their normal destini is marriage, which still means practically subordination to man; for masculine prestige is far from extinction, resting upon still solid economic and social foundations. Simon De Beauvoir (203).

Generally, women are treated like a slave in the society. Banerjee portrays the Indian woman's position after marriage and she mention that woman is not a toy in the hands of a male to be used according to their convenience. Women are usually sufferer in the male dominated society. From her childhood Draupadi was under the patriarchal system. Even during their disguise also, Draupadi worked as a maid to queen Sudheshna in the palace of King Virat. Queen Sudheshna's brother Keechack, always teases her and she feels irritates about his action. She informs his action to Yudhisthir and she suffered by the behavior of Keechack.

In the earlier times, women are treated as powerful intoxicating drugs in the male dominated world. Woman plays many roles in their life as a friend, wife, daughter, sister is examined in this novel. The novel, *The Palace of Illusions* is written in the first-person narrative, giving Draupadi's own thoughts and ideas in her own life. Draupadi is a fiery female redefining for us a world of warriors, gods and the ever-manipulating hands of fate. Draupadi is swept into their sides through years of exile and a terrible civil war involving all the important kings of India. In modern times, women are recognized as an equal to men. Especially, Draupadi is very rebellious, furious and modern women with different ideas and innovative thoughts and courage, finally she finds success in her life.

Chitra Banerjee's novels often reveals the lives of women seeking ideals. The diverse experiences of female characters, as well as their use of conscience, highlight the obstacles that women face. In the novel, *The Mistress of Spices*, Banerjee offers a more complex portrayal of diasporic identity. The unique revelation of characters inner thoughts and feelings adds an important emotional dimension to this novel. It is an emancipating novel, which talks about women who are actually easy to agree the difficult dimensions that life has forced upon each and every character. The story brings out a wild twist as the people became entangled with one another. Nayan Tara, the protagonist of the novel, was born in the small village and she named as Tilo. She confesses that, 'they named me Nayan Tara, the star of the Eye; my parents' cheeks were heavy with fallen hope at another girl – child, and this one colored like mud' (MS, 42). Bhagyavati is the name which was given to her by the pirates who kidnapped her and then the snakes renamed her Sarpakanya when she determines to visit the island.

Tilo is a matured women who is playing the role of spice mistress. She is to heal the problems of other people but she is not to become emotionally engaged in their pain. Throughout the novel, the immigrant characters like, Haroun, Geeta, Jagjit and Lalita are overcoming their physical, emotional

and psychological problems. Tilo's previous existence explicates that how the old one taught her the magic and how she groomed her and ordained her as a mistress of spices. As a mistress of spices at a spice store on the crooked corner where Oakland buses stop, Tilo spend her most of the time in the store only. The feministic aspect has an impact on the minor characters like, Lalita, Geeta and Hameeda. Lalita is Ahuja's wife and in spite of her good looks and charisma, she struggles a lot from being bound to her village by an arranged marriage to a male dominated person. On looking all these things, Tilo offers turmeric to her, because Turmeric may avoid her loneliness, sorrows.

Next Geeta, the American born daughter of exiled Indians is scolded by her own grandpa for her loose conduct with men. The tale of Geeta and her grandfather illustrates the Indian-American cultural bond. Because of her grandfather she faces many problems and after Tilo offers the Indian spices, she reunited with her family. Next character, Hameeda too suffers in the hands of her husband, but paradoxically begins life fresh and new with the help of his brother. She even attempts to learn

English so that, she and her daughter can sustain themselves in America. Immigrant people suffered a lot in their migrated country because of the tradition, dressing and culture. In all her works, Chitra Banerjee demonstrates women as a warrior and she discussed many problems faced by women in their life. She hopes that readers would view the female characters in these novels from the feminist point of view after reading these novels.

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## A HUMAN RIGHTS PERSPECTIVE ON CHILD LABOUR

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### Abstract

*The concepts of child labor and child work are casually used interchangeably in the literature of the subject in tact, child labor, sub-set of child work denoting that work, which is child. Child work becomes child labor when it threatens the health and development of the children. It is child labor, not child work, but something that one has to be concerned with. Child labor becomes exploitative when one starts full exploitative of the l-time work at an early age. The International Labor Organization estimated in 2000 that, of the approximately 246 million children engaged in labor worldwide, 171 million were working in situations harmful to their development. Child Labor and Human Rights provides a comprehensive overview of child labor from a human rights perspective. It obligates the Starts of respect and ensures that children get a fair and equitable deal. There has to be a convergence of various services in order to make a dent in the child labor situation. Panchayats and urban local bodies at the local level are charged with the responsibility of ensuring development and social justice. The implementation of various programs can ensure this convergence. Panchayats have to pay special attention to this department and ensure effective implementation of Programmed like crop insurance, cheap credit, subsidized fertilizers and seed. Along with convergences of services, there has to be convergences of attitude among law enforcement agencies.*

**Keywords:** *Human Rights, Child Labor, Programme.*

### Introduction

Child Labor has become a growing phenomenon across the world. Millions of children are working in hazardous and exploitative conditions harmful to their physical, mental and moral development. When we talk about the health of child workers, most of the children work more than 12 hours in inhuman conditions that result in physical deformities and make them vulnerable to several infectious and other disorders and diseases. Often, the long hours of work and poor environmental conditions in the workplace expose children to cramped conditions and hazardous substances. it is necessary to begin with the meaning of the To understand the phenomenon of child labor he acts and provisions are been stated by the government but their implementation is in stake child work. The concepts of child labor and child work are casually used interchangeably in the literature of the subject. In tact, child labor is a subset of child work, denoting that work is exploitative of the child.

Child work becomes child labor when it threatens the health and development of the children. It is child labor, not child work, that one has to be

concerned with. Child work becomes exploitative when one starts full-time work too early and This happened historically in the earlier stages of industrialization in Europe, where children began working in factories at the age of nine, eight, or even five years.

This is still the case today in many developing countries. Working too long within or outside of the family so that children are unable to attend school, where it is available, or to make the most of school due to fatigue or lack of time. In some cases, children still work 12–16 hours a day. Work resulting in excessive physical, social, and psychological strains upon the child, as in the case of sexual exploitation in prostitution and pornography work in sweatshops, as well as such. dangerous work as military service and mining .The International Labor Organization estimated in 2000 that, of the approximately 246 million children engaged in labor worldwide, 171 million were working in situations harmful to their development. Child Labor and Human Rights provides a comprehensive overview of the phenomenon of child labor from a human rights perspective. The authors consider the connections

between human rights and abusive child labor, the pros and cons of a rights-based approach to the problem, and specific strategies for effecting change. The problem is more acute in developing countries, given the changes undergo in their societies. Industrialization They make an indispensable contribution to the growing effort to abolish abusive and exploitive child labor practices. and urbanization have brought qualitative changes in the nature of children's work in developing countries. India, being one of the developing countries, has the specific features of child labor *Its* forms differ in rural to urban areas. Rural areas constitute more child labor activity than urban areas; hence, the magnitude of the problem is greater in rural areas than in urban areas. The form of child labor in the agricultural sector in rural areas farm lab provides for or, which constitutes seventy percent of labor. In urban areas, its form changes, which includes activities in different sectors such as the match and re-industries of Sivakasi in Tamil Nadu and the glass industry of Firozabad, a town in Agra district (UP). Aligarh's lock industry (U.P.), industry in carpet-making Jammu and Kashmir and U.P., the making industry in Madhya Pradesh, pottery industry in Khurja (U.P.), coir industry in Kerala, zari industry in Banaras, brick kiln industry of West Bengal, industry the slate in Markapur (A.P.), kiln industry of Dhona (A.P.), which constitutes thirty per cent of the urban labor force.

### Abolition of Child Labor

The NHRC has been deeply concerned about the employment of child labor in the country as it leads to the denial of the fundamental human rights of children guaranteed by the Constitution and the International Covenants. The Commission on 'child labor has observed that – "No economic or social issue has been of such compelling concern to the Commission as the persistence, fifty years after Independence, of widespread child labor in our country. despite articles 23,24,39(e) & (f), 41, 45 and 47 of the Constitution and despite the passing of various legislations on the subject between 1948 and 1986. It has defined the terms of six Conventions of

the International Labor Organization to which India is a party and the on the Convention Rights of the Child, in addition Despite the announcement of a National Child Labor Policy in 1987, the subsequent constitution of a National Authority for the Elimination of Child Labor (NAECL) and the undertaking of National Child Labor Projects (NCLP) in an increasing number of areas of our country, the goal of ending child labor remains elusive, even in respect of the estimated two million children working in hazardous industries who were to be freed from such tyranny by the year 2000". The Commission is focusing its attention on the following industries, where rampant reports of child labor were received: These include internal the:-

- Stone-Quarries
- Brick Kiln
- Diamond cutting
- Ship-breaking
- Construction-work
- Carpet-weaving

The Commission monitors the child labor situation in the country through its Special Rapporteurs, visits by members, sensitization programmers and workshops, launching projects, interaction with the industry associations and other concerned agencies, and coordination with the State Governments and NGOs to ensure that adequate steps are taken to eradicate child labor and several, some, many The Commission has involved the NGO sector in the non-formal education of child laborers, and a number of such schools and training centers are functioning in the districts of the carpet belt. The Commission believes that unless and until the reality of free and compulsory education for all up to the completion of the age of 14 years is realized, the problem of child labor shall continue also been a distinct improvement in the level of awareness among the general public about child labor issues.

### Causes of Child Labor

Children are sent to work due to sheer necessity in the family. Wherever literacy levels are low, the size of the family is large and a family is compelled to

send their children to work. Poverty forces the parents to send their children to seek employment because augmentation of their income is essential for the survival of the families, which are invariably large. However, the burgeoning population growth, increasing rural migration, family disintegration, inadequate measures of social security, lack of avenues for education, social choices, social policies and shortcomings in institutional arrangements and ineffective law enforcement machinery are some of the contributory Factors for the increase in number of child workers in India.

If the adult workers could get a real living wage, they are likely to desist from sending their children to work. they would likely desist from sending their The wage structure of adult workers has a direct bearing on the occurrence of child labor. Children to work Sociological factors, too, have their share of this scourge. The tradition of family occupation often motivates the child to become a The educational system bread winner adds yet another dimension to the prevalence of the child labor problem. In Sometime children go to work because of compelling circumstances. In the event of the breadwinner, this is also fallacious to some degree, as it is usually the head of the family who forces children to go to the labor market. Many places the school presents a drab and dismal picture and holds little attraction for the child. Moreover, the increasing unemployment among educated youth undermines the faith of the poor in the efficacy and pay - off education.

### **Multi – Rights of Children**

The Convention on the Rights of the Child contains 54 articles, each of which details a different type of. These can be classified into four broad categories:

1. **Survival Rights:** It covers child's rights to life and the needs that are most basic to existence; these include an adequate living standard, shelter, nutrition and access to medical services.
2. **Development Rights:** It includes those things that are required by children in to reach there fullest potential. Examples are the right to education, play and leisure, cultural activities,

access to information, and freedom of thought, conscience, and religion.

3. **Protection Rights:** It requires that children be against safeguarded all forms of abuse, neglect and exploitation. They cover issues such as special care for refugee children, torture, abuses in the criminal justice system, involvement in armed conflict, child labor, street children, drug abuse and sexual exploitation.
4. **Participation** It encompasses the freedom to express opinions, to have a say in matters affecting their own lives, to join associations, and to assemble peacefully. Rights: It allows children to take an active role in the communities and nations.. As their abilities develop, children are to have increasing opportunities to participate in the activities of their society and in preparation for responsible adulthood. The categorization of child rights reveals that the Convention recognizes the exceptional vulnerability of children, which proclaims that childhood is entitled to special care and It is guided by the principle of a 'first call children' - a principle that the essential needs of children should be given highest priority in the allocation of resources.

It obligates the State of respect and ensures that children get a fair and equitable deal in society. It emphasizes the importance of family and the need to create an environment that is conducive to the healthy growth and development of children. It advocates concerted action by individuals, Government and Non-Governmental Organizations to promote the Rights of the Child.

### **Conclusion**

To put it in short, it is a means of empowering children and creating an environment in which all children are able to live happily and realize their potential, leading to balance and sustainable social development. An integrated approach is the only basis for elimination of child labor. There has to be a convergence of various services in order to make a dent in the child labor situation. Panchayats and urban local bodies could build linkages with the

following in the process of convergences Panchayats and urban local bodies at the local level charged with the responsibility of ensuring development and social justice and the implementation of various programs can ensure this convergence Health department to cover medical inspection of all working children to ensure that people are aware of concerns multiple; Education department to ensure access, enrolment and retention of children; Labor department to ensure that various provisions of Child Labor Act and national policy on child labor are followed, Rural development to ensure that Child Labor families have priority in both welfare and developmental Programmes. Agriculture to ensure proper storage of food items, marketing, information and transportation and so on Since the rural sector absorbs 80 percent of child labor, panchayats have to pay special attention to this department and ensure effective implementation of programs like crop insurance, cheap credit, subsidized fertilizers, and seed. Along with convergences of services, there has to be convergences of attitude among law enforcement agencies, parents, Panchayats

leadership, and the civil society. Last but not least, unless there is an ethical shift in favor of total elimination of child labor. On the other hand, with a strong will and a sound package, the problem of child labor may decrease over the years.

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# INTERVENTION OF ZUMBA DANCE PROGRAM ON SELECTED PHYSICAL FITNESS AND BODY COMPOSITION VARIABLES AMONG COLLEGE WOMEN STUDENTS

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## Abstract

The main objective of this study was to ascertain the intervention of a zumba dance program on selected physical fitness and body composition variables in among college woemn students. The sample for the study consisted of thirty (30) women's college students, ages 18 to 24, who participated in each training session during the twelve-week intervention of the zumba dance program. When conducting this study in the months of July, August, and September of the academic year 2023–2024, they did not participate in any other physical activity or training program. They were put through testing before and after the zumba dance program was introduced. The tests were conducted in an indoor EMG Yadava Women's College in Madurai, Tamil Nadu and India. There, a constant temperature of about 20°C was maintained inside. Each of the 24 zumba dance classes was led by a certified zumba instructor. Randomly, the participants were divided into two equal groups. Group II is the control group, and Group I is the Zumba dance program. Recently, Zumba dance programs have been introduced with the goal of enhancing the social, physiological, and physical outcomes of students. The purpose of this research is to ascertain the impact of the Zumba dance program on the physical fitness and body composition goals of the physical and health education course that is provided to university students in their year of preparation. This study employs a simple random experimental pre-test and post-test design. Students were divided into two groups: one for experimentation and the other for control. About 30 science track students who enrolled in the course during the first semester of the 2023–2024 academic year were among the possible participants. The basic random sampling method was used to choose the research sample, which consisted of 30 students-15 in each group. The percentage of body fat and agility were the assessed dependent variables chosen for this investigation. A shuttle run timed in seconds was used to gauge agility, and a bioelectrical impedance analyzer yielded a percentage test for body fat. For a total of twelve weeks, the training program consisted of five days a week, sixty minutes a session. A 40-minute Zumba dance program, a 10-minute musical warm-up, and a 10-minute musical warm-down comprised these 60 minutes. To determine whether there were any significant differences between the groups for each variable separately, an analysis of covariance (ANCOVA) was used. Whenever the "f" ratio of the adjusted post-test means was determined to be significant at the 0.05 level of confidence, the Scheffe's test was used as a post-hoc analysis. Lastly, the study's findings also showed that, when compared to the control group, the Zumba fitness program group's agility and body fat percentage had significantly improved.

**Keywords:** Zumba Dance, Agility, Percentage of Body Fat and Women Students.

## Introduction

Dance has always been a part of human cultures, religions, and rituals; in contemporary society, it is primarily used for celebrations. Dancing is still primarily done for fun, relaxation, happiness, calm, and self-expression these days, though it can also be

done for competition. It is an enjoyable means of maintaining physiological function and increasing physical activity, both of which keep the human body in good shape.

People of all ages, shapes, and sizes can stay in shape by dancing. Many physical and psychological

advantages of this practice include enhanced heart and lung health, increased muscular tone and strength, endurance, motor fitness, aerobic fitness, weight control, stronger bones and a lower risk of osteoporosis, improved balance and spatial awareness, improved coordination, agility, and flexibility, mental functioning, general and psychological well-being, and the growth of improved social skills and self-esteem. Anyone can dance alone, with a partner, or in a group.

We can enjoy dancing in a variety of settings, including community halls, social events, schools, and homes. Since dancing has become such a well-liked form of exercise and fitness, most fitness centers now include dance classes in their group fitness schedules. It can be done in a social or competitive manner at times. Because anyone of any age can participate, it can be a fantastic option for both recreation and sports. Dancing is typically done indoors, so it doesn't matter if it's raining or freezing outside. Since everyone has the freedom to choose, the equipment required for dancing will vary depending on the style. For example, purchasing tap shoes is necessary for tap dancing; nonetheless, many dance styles don't call for specific gear or shoes. People's lives and their physical, physiological, and cognitive needs all depend on exercise.

This contemporary method of fitness exercise meets objectives like strengthening bone-joint segments of the locomotor apparatus, enhancing posture, and achieving bodily harmony. This is critical for sustaining interest in ongoing exercise, as the primary deterrent for participants in group fitness programs quitting is the monotony of training sessions over an extended period of time. (Stoiljković et al., 2010).

Actions and campaigns to promote a more active and healthy lifestyle are making people more aware of the advantages of different policies as well as regular exercise and physical activity programs. Because it has been demonstrated in numerous studies to have a protective role against cardiovascular disease, metabolic disorders, skeletal disorders, and even mental development, physical activity is fundamental

to maintaining life functions and is an essential part of having a healthy lifestyle. (Vendramin et al., 2016).

Exercises in group fitness are a type of structured physical activity that can improve health and alter body composition. Inspired by Latin music and dances, Zumba fitness is a brand-new type of dance exercise. The exercise incorporates the fundamentals of various Latin American dances, including reggaeton, cumbia, samba, merengue, and salsa. It incorporates elements of other dances, such as hip-hop, belly dance, Indian, African, and so forth, into its basic aerobic steps. It combines the fundamental ideas of strengthening exercises and aerobic interval training to increase calorie consumption, strengthen the entire body, and enhance the cardiovascular system. (Perez and Greenwood-Robinson, 2009).

Zumba fitness is a contemporary method of exercise. Exercise fulfills objectives like enhancing posture, achieving physical harmony, and fortifying the bone-joint components of the locomotor apparatus. **(Furjan-Mandić, Kosalec, and Vlašić, 2011).**

The majority of the research demonstrates that incorporating different group dance fitness programs can improve women's functional and motor abilities in ways that are statistically significant. **(Park, SK et. al. 2007)**

Also, According to the most recent research, among different group fitness programs, dance aerobics stands out as the most effective. The main motivators for all of the participants in a dance aerobics class are the numerous dance steps with varying intensities of exercise and the inspiring music. This is significant from the standpoint of sustaining interest in ongoing exercise, as the primary cause of program abandonment among group fitness members is the monotony of each training session over an extended period of time. (Stoiljković et al., 2010). What are the most effective group fitness program that include healthcare, aesthetic, social and entertainment character of exercising is the question that fitness instructors often asks themselves. The aim of this research is to reveal the intervention of zumba dance program on changes in college women agility and body composition.

## Methodology

The main objective of this study was to ascertain the intervention of a zumba dance program on selected physical fitness and body composition variables in among college woemn students. The sample for the study consisted of thirty (30) women's college students, ages 18 to 24, who participated in each training session during the twelve-week intervention of the zumba dance program. When conducting this study in the months of July, August, and September of the academic year 2023–2024, they did not participate in any other physical activity or training program. They were put through testing before and after the zumba dance program was introduced. The tests were conducted in an indoor EMG Yadava Women's College in Madurai, Tamil Nadu and India. There, a constant temperature of about 20°C was maintained inside. Each of the 24 zumba dance classes was led by a certified zumba instructor. Randomly, the participants were divided into two equal groups. Group II is the control group, and Group I is the Zumba dance program. Recently, Zumba dance programs have been introduced with the goal of enhancing the social, physiological, and physical outcomes of students. The purpose of this research is to ascertain the impact of the Zumba dance program on the physical fitness and body composition goals of the physical and health education course that is provided to university students in their year of preparation. This study employs a simple random experimental pre-test and post-test design. Students were divided into two groups: one for experimentation and the other for control. About 30 science track students who enrolled

in the course during the first semester of the 2023–2024 academic year were among the possible participants. The basic random sampling method was used to choose the research sample, which consisted of 30 students-15 in each group. The percentage of body fat and agility were the assessed dependent variables chosen for this investigation. A shuttle run timed in seconds was used to gauge agility, and a bioelectrical impedance analyzer yielded a percentage test for body fat. For a total of twelve weeks, the training program consisted of five days a week, sixty minutes a session. A 40-minute Zumba dance program, a 10-minute musical warm-up, and a 10-minute musical warm-down comprised these 60 minutes.

## Statistical Technique

The intervention of the Zumba dance program on selected physical fitness and body composition variables among collegewomen students was investigated using the following statistical techniques. To determine whether there were any significant differences between the groups for each variable separately, an analysis of covariance (ANCOVA) was used. Whenever the "F" ratio of the adjusted post-test means was determined to be significant at the 0.05 level of confidence, the Scheffe's test was used as a post-hoc analysis.

## Results

### Agility

Table 1 presents the results of the analysis of covariance on agility of the pre-test, post-test, and adjusted post-test mean scores of the control group and zumba dance program.

**Table-I Analysis of Covariance on Agility of Pre-Test and Post-Test and Adjusted Post-Test Mean Scores of Zumba Dance Programe and Control Groups**

Test	Zumba Dance Program	Control Group	SOV	Sum of Squares	Df	Mean Square	'F' Ratio
Pre-Test Mean	12.38	13.48	Between Within	13.78 125.10	2 28	6.89 4.47	1.54
Post-Test Mean	9.70	13.45	Between Within	642.58233.40	2 28	321.29 8.34	38.52
Adjusted Post-Test Mean	9.88	13.43	Between Within	663.18150.40	2 27	331.59 5.57	59.53

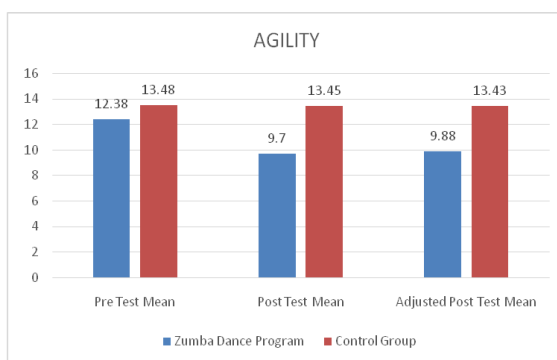
Significant at 0.05 level of confidence

The table value required for significance at 0.05 level of confidence with 2 and 28, 27 were 3.22, 3.23 respectively. Table I shows that the control group's and the zumba dance program's pre-test mean agility scores were 13.48 and 12.38, respectively. The table F-ratio was 3.22 and the achieved f-ratio for the pre-test was 1.54. Consequently, at the 0.05 level of confidence, the pre-test mean f-ratio for degrees of freedom 2 and 28 was not significant. This demonstrated that there was no discernible difference between the experimental and control groups, suggesting that the group randomization technique used to assign subjects to groups was the best one.

The agility post-test means for the control and zumba dance program participants were 13.45 and 9.70, respectively. The table f-ratio was 3.22 and the achieved f-ratio for the post-test was 38.52. Therefore, at the 0.05 level of confidence, the post-test mean f-ratio for degrees of freedom 2 and 28 was significant. This indicated that the emphasis on agility and the post-test mean differed significantly.

The zumba dance program and control groups had adjusted post-test means for agility of 9.88 and 13.43, respectively. The adjusted post-test mean's attained f-ratio was 59.53, while the table f-ratio was 3.23. Consequently, at the 0.05 level of confidence, the adjusted post-test mean f-ratio for degrees of freedom 2 and 27 made sense. Following the experimental training on the means, it was found that their levels of agility differed significantly.

According to Table II above, the agility adjusted post-test mean difference values for the control group and the zumba dance program group are 3.55 respectively. These values are higher than the 3.02 confidence interval value at the 0.05 level of confidence. The study's findings demonstrated a significant difference between the control groups and the zumba dance program group's adjusted post-test mean values. Accordingly, the current study unequivocally shows that the control group's agility is inferior to that of the zumba dance program group. Figure -1 shows the agility pre-test, post-test, and adjusted post-test mean values for the control group and zumba dance program group.



**Table-II Scheffe's Test for the Difference between the Adjusted Post-Test Paired Mean of Agility**

Zumba Dance program	Control Group	Mean Difference	Confidence Interval
9.88	13.43	3.55*	3.02

\*Significant at 0.05 level of confidence

**Percentage of Body Fat**

Table II presents the results of an analysis of covariance regarding the percentage of body fat for the control group, pre-test, post-test adjusted post-test mean scores, and the zumba dance program.

**Table-II Analysis of Covariance on Percentage of Body Fat of Pre-Test and Post-Test and Adjusted Post-Test Mean Scores of Zumba Dance Programme and Control Groups**

Test	Zumba Dance program	Control Group	SOV	Sum of Squares	Df	Mean Square	'F' Ratio
Pre- Test Mean	20.25	21.65	Between	11.98	2	2.99	0.56
			Within	148.50	28	5.30	
Post-Test Mean	15.12	21.67	Between	344.12	2	172.06	19.25
			Within	250.45	28	8.94	
Adjusted Post-Test Mean	15.32	21.73	Between	355.40	2	177.70	30.90
			Within	155.25	27	5.75	

Significant at 0.05 level of confidence

The table value required for significance at 0.05 level of confidence with 2 and 28, 27 were 3.22, 3.23 respectively.

### Results of Percentage of Body Fat

Table II shows that the control group and the zumba dance program had pre-test means of 21.65 and 20.25 percent body fat, respectively. The pre-test's attained f-ratio was 0.56, while the table's f-ratio was 3.22. Consequently, at the 0.05 level of confidence, the pre-test mean f-ratio for degrees of freedom 2 and 28 was not significant. This demonstrated that there was no discernible difference between the experimental and control groups, suggesting that the approach of assigning subjects to groups according to body fat percentage was the most effective one.

The control group's body fat percentage was 21.67 percent, while the post-test means for the zumba dance program were 15.12 percent. The table f-ratio was 3.22 and the achieved f-ratio for the post-test was 19.25. Therefore, at the 0.05 level of confidence, the post-test mean f-ratio for degrees of freedom 2 and 28 was significant. This indicated that the emphasis on body fat percentage varied significantly between the post-test means.

In the control group and the zumba dance program, the adjusted post-test means of body fat percentage were 21.73 and 15.32, respectively. The adjusted post-test means' attained f-ratio was 30.90, while the table's f-ratio was 3.23. Consequently, at the 0.05 level of confidence, the adjusted post-test mean f-ratio for degrees of freedom 2 and 27 was significant. Following the experimental training on the means, it was found that the percentage of body fat varied significantly between the groups.

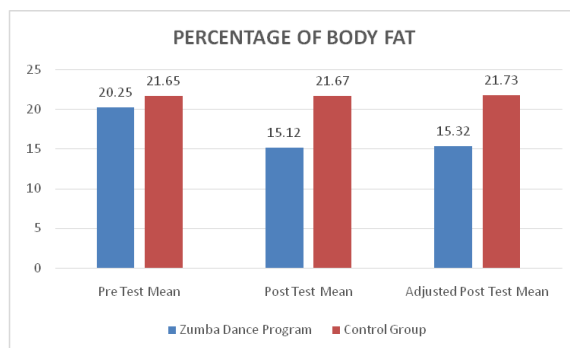
**Table-II Scheffe's Test for the Difference between the Adjusted Post-Test Paired Mean of Percentage of Body Fat**

Zumba dance program	Control Group	Mean Difference	Confidence Interval 0.05 level
15.32	21.73	6.41*	3.68

\*Significant at 0.05 level of confidence

The adjusted posttest mean percentage of body fat difference values between the control group and the zumba dance program group are 6.41 respectively, according to Table II above. These values are higher than the 3.68 confidence interval value at the 0.05 level of confidence. The study's findings demonstrated a statistically significant difference between the control group's and the zumba dance program groups in adjusted posttest mean values. Accordingly, the current study unequivocally shows that in terms of body fat percentage, the zumba dance program group performs better than the control group.

Figure -2 shows a graphic representation of the pre-test, post-test, and adjusted post-test mean values for the zumba dance and control group program group on percentage of body fat.



### Discussion and Findings

In this study, women college students' physical fitness and body composition were examined after participating in a zumba dance program. The study's findings demonstrate that agility and body composition were enhanced by the Zumba dance program. The results of the investigations this study referred to and the current study's findings were similar. However, the subjects of the current study underwent substantial changes; the group's agility and body composition significantly improved, which may have been brought about by the Zumba dance program. People who dance as a physical or athletic activity experience positive improvements in their dance development, which can be multifaceted.

Vijayalakshmi, A. et al. (2021) reported that his team's research demonstrated that schoolgirls' flexibility and muscular strength significantly improved after a 12-week Zumba dance practice. Numerous studies (Hackney and Earhart, 2010; Hanna, 2010; Huddy and Stevens, 2011; Zitomer and Reid, 2011) highlight the positive effects dancing has on the body and mind. It was discovered that university students who danced had lower levels of hopelessness (Bastug and Demir, 2010). According to Minton (2003), students who took dancing classes were able to think more creatively and abstractly than their non-dancing counterparts. Researchers Fonseca et al. (2014) found that ballroom dancing improved people's perceptions. Krampe (2013) discovered that dance-based therapy had a mild to moderately positive impact on a number of balance and mobility components. Motivation, self-assurance, body language, self-sufficiency related to dancing, and dance performances were found to have improved favorably (Tokinan and Bilen, 2011). In a concentration study, it was found that doing yoga and aerobic exercise led to a significant improvement in feeling states and concentration levels. While both yoga and aerobic exercise improve focus, stress reduction, energy levels, and overall well-being, only yoga enhances mood and self-esteem (Dolde, 2011). The children's activities of dancing, playing games, painting, and singing enhance all of the senses, aid in brain development, and promote growth.

### Conclusion

Within the confines of the current investigation, the following conclusions were reached in light of the reviews and findings.

The study's findings also showed that the Zumba dance group's body fat percentage was higher than that of the control group, and that their agility had significantly improved. Last but not least, the Zumba dance program helped to eliminate shyness and create a fun and enjoyable environment for the students. This increased their motivation to train and approach education with enthusiasm.

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