



ERODE SENGUNTHAR ENGINEERING COLLEGE



(An Autonomous Institution)

APPROVED BY AICTE, NEW DELHI AND PERMANENTLY AFFILIATED TO ANNA UNIVERSITY,
CHENNAI ACCREDITED BY NBA, NEW DELHI, NAAC WITH GRADE "A", IE(I), KOLKATA

PERUNDURAI, ERODE - 638 057.

CHEMICAL ENGINEERING NEWS LETTER

ACADEMIC YEAR 2023 - 2024



ABOUT THE DEPARTMENT

The Department of Chemical Engineering has been successfully functioning since 1996. The courses offered are B.Tech. (Chemical Engineering) and M.Tech. (Chemical Engineering). It organizes Symposia, Exhibitions, Conferences, Seminars and Workshops for both students and Faculty belonging to various Technical Educational Institutions, Research Scholars, Research Institutes and Industries all over India.

The Department is Accredited by NBA, since 2009 and Institute is accredited by NAAC with "A" grade since 2015. The department has state-of-the-art laboratory facilities with sufficient modern day equipment. Our students are placed in various top MNCs like SPIC, Sanmar, Manali Petrochemicals Limited, Tuticorin Alkali Chemicals Private Limited, Wipro, etc.

The department is recognized as approved research centre for pursuing Ph.D by Anna University.

VISION OF THE DEPARTMENT:

To provide world class technical education in Chemical Engineering and to promote Scientific Research in Chemical Engineering and its allied areas

MISSION OF THE DEPARTMENT:

DM1 : To impart knowledge to enrich the innovative excellence and positive thinking of students through proper technical education in Chemical Engineering and allied field.

DM2 : To encourage students for creating value added products and commodities which serves the society irrespective of the socio economic background.

DM3 : To motivate the students to forecast the societal needs and build their research and development capabilities with open ended experiments and projects beyond the syllabus.

DM4 : To emphasize more on to develop the students to become highly qualified professionals with competency and ethical values.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

I. Preparation: To provide strong fundamental technical knowledge and professional skills to obtain positions in industrial, government, academic or other organizations.

II. Core Competence and Professionalism: To develop the students with contemporary knowledge

and competency in Chemical Engineering and its diversified area such as Petrochemical, Pharmaceutical, Bio-chemical, and allied fields.

III. Breadth: To create the students with more interest on multi-disciplinary projects with active communication skills to effectively bridge Engineering and non-Engineering fields through a commitment to overall personality and career development.

IV. Learning Environment: To impart the students to gain interest on life-long learning, research, communication techniques pertaining to job-oriented skills with right attitude and ethics.

PROGRAM OUTCOMES(POs) Engineering Graduates will be able to:

PO1.Engineering knowledge: Apply the knowledge of mathematics, science, Engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2.Problem analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3.Design/development of solutions: Design solutions for complex engineering problems and design

system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4.Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

PO5.Modern tool usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7.Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.

PO8.Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9.Individual and teamwork: Function effectively as an individual and as a member or leader in diverse teams, and in multi-disciplinary settings.

PO10.Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11.Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi-disciplinary environments.

PO12.Life-long learning: Recognize the need for the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOS)

PSO1. Process modeling & simulation: Developing applied knowledge through Process Modeling & Simulation in Chemical Process Industries.

PSO2. Contemporary skills: An ability to update knowledge on recent developments in Chemical Industries.

PSO3: Core employability: To produce efficient and specialized Engineers in the field of Fertilizers, Petroleum, Drugs & Pharmaceutical Technology and Specialty chemicals.

DEPARTMENT ACTIVITIES



Guest Lecture on "Applications of Chat GPT in Chemical Industries" presented Dr.Saravanan, HoD/ AIDS, ESEC. 13/03/2024



International Conference on "Chemical Engineering Innovations in Energy Environment & Industrial Safety".



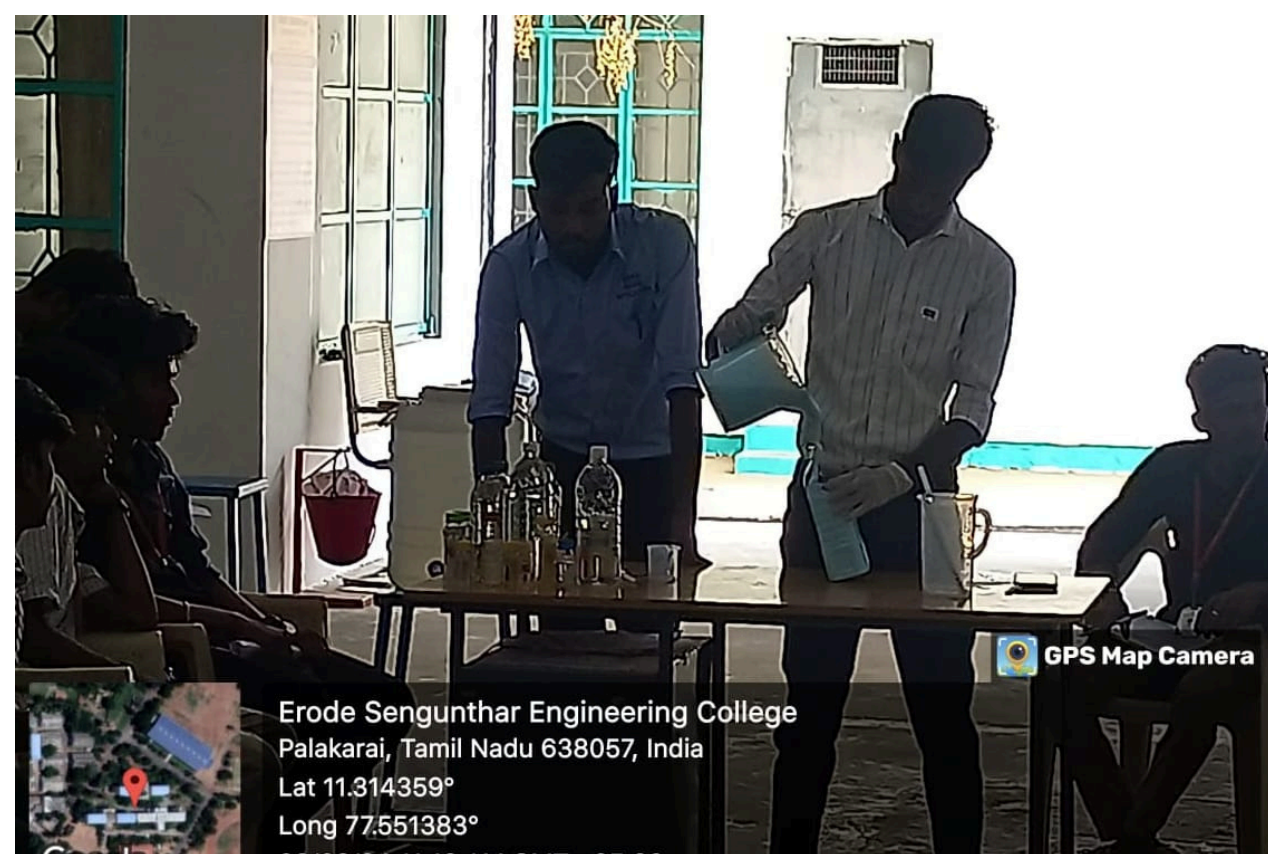
Guest lecture Saikrishna from PonPure Chemicals on the topic "How to Become a Successful Chemical Engineer" 04/04/2024



Old age home visit to Mariya Nivas, Lakkapuram, Erode. 15/04/2024



Guest lecture on “Applications of Biotechnology in Pharma Industries” by Dr.Thilakavathy, Vice-Principal, Ennam College of Pharmacy. 04/04/2024.



Hands on Training on Home care Products Making by Mr.R.K.Naveen Kumar, Founder, RK Home Care Products, Erode 08/03/2024.



A Guest Lecture on “Glimpses of Chemical Engineering” by Dr. N. Anantharaman, HAG-Professor(Rtd), NIT, Trichy.



Session on Problem Solving and Ideation Workshop – Optimum Design for Phytomolecule Extraction Unit 11/10/2023



National Level Technical seminar on “N₂ Fixating Bio-fertilizers : Current and Futuristic Trends On Sustainable Agriculture and Food Security” by Dr. Saranya Kuppusamy, Visiting Faculty, Centre for Environmental Studies, Anna University, Chennai. 18/04/2024.

INERNSHIP TRAINING ATTENDED BY STUDENTS

NAME	YEAR/ CLASS	NAME OF THE COMPANY	DURATION
Snekha Akanksha Prasar	III	Indian Oil Corporation Ltd Barauni, Bihar.	15.05.2023 -14.06.2023
Isakkiappan.K Aarthish.S Siva.K	III	Kudankulam Nuclear Power Project, Kudankulam.	01.06.2023-17.06.2023
Harish Kumar.A Gowtham Karthick Saravanan.R Vigneswar R Vipin	III	Fertilizers and Chemicals Travancore Ltd, Ernakulum.	13.07.2023 -26.07.2023
Kaviya P I Uma Bharathy V Varshini S Rahsha A V R	III	Orchid Pharma Limited, Chennai.	12.07.2023 -22.07.2023
Aadhithan R Packer Mydeen M Satya Muthu Faizur Rahman Kaavin M K	III	Malladi Drugs and Pharmaceuticals Ltd, Ranipet.	24.07.2023 - 5.08.2023
Ajay A U Sri Manikanadan.R Gurushankar.R Vinuhassan.K	IV	Sree Rengaraj Ispat Industries, Perundurai.	20.07.2023 - 13.10.2023
Murugan Naveen	IV	Jacobi Carbons Group, Coimbatore.	02.1.2024 - 28.02.2024
Suresh K Naveenkumar	IV	Sundaram Fasteners, Chennai.	20.09.2023 -19.10.2023
Dhineshkumar Harish Ss	IV	Bannari Amman Sugars Kollehal, Karnataka.	02.10.2023

NPTEL COURSE DONE BY STUDENTS

NAME OF THE STUDENT	NAME OF THE COURSE	NO.OF WEEKS
Harini. S	Renewable Energy Engineering: Solar, Wind, and Biomass Energy Systems	12
Vishali. S	Renewable Energy Engineering: Solar, Wind, and Biomass Energy Systems	12
Jacini. S	Basic Environmental Engineering and Pollution Abatement	12

JOURNAL PUBLICATIONS BY THE FACULTY

NAME OF THE FACULTY	TITLE OF THE PAPER	NAME IF THE JOURNAL	DEAILS
Dr. T. Usharani Dr. P. Akilamudhan Mr. B. Sasikumar Ms. S. Gokila	Synthesis of Lead Sulphide Nanoparticles From Egg Shell Membrane and its Relevances	Desalination and Water Treatment	https://doi.org/10.1016/j.dwt.2024.100098
Dr. P. Akilamudhan	Carbon-Based Nanoadsorbents for the Removal of Emerging Pollutants	Adsorption Science & Technology Volume 2023, Article ID 3579165, 12 pages	https://doi.org/10.1015/2023/3579165
Dr. Amita Sharma	Environmental Impact Assessment and Process Upscaling for Sustainable Production of Cellulose nanofiber, a Biopolymer Derived from Ligno Cellulosic Biomass	Sustainable Chemical Engineering	DOI: https://doi.org/10.37256/sce.5120243625
Dr.M.Aynul Rifaya	An Integrated Computational and Experimental Approach to Formulate Tamanu Oil Bigels as Anti-Scarring Agent	Pharmaceuticals (Basel)	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10318744/

BOOK CHAPTER PUBLICATIONS BY THE FACULTY

NAME OF THE FACULTY	NAME OF THE CNFERENCE	PAPER PRESENTED ON (TOPIC)	VENUE
Dr. V. Santhosh	International Conference	Heterogeneous function of a biofuel - A review	Heritage Institute of Technology, Kolkata.
Mr. B. Sasikumar	National Conference	Synthesis of Lead Sulphide Nanoparticles From Egg Shell Membrane	National Institute of Technology , Trichy
Dr.T. Usharani	International Conference	Photocatalytic Degradation	Bannari Amman Institution, Sathyamangalam.
Dr. M. Aynul Rifaya	Book Chapter	Synthesis and Characterization of Fe ₂ O ₃ , Fe ₂ O ₃ @Ag, Fe ₂ O ₃ @AC and Fe ₂ O ₃ @Ag@AC NCs for Waste Water Treatment Applications	B P International

CLASS WISE TOPPERS LIST

NAME	YEAR	CGPA
Manju M L	Final year-2023 passed	9.5
Sivathanush M	Final year-2023 passed	9.23
Vishali. S	III – 2023	9.6
Harini. S	III – 2023	9.17
Hari Prasanth.K	II – 2023	9.60
Muthukrishnan S	II – 2023	9.20

STUDENTS ACTIVITY CORNER

பெற்றை....

நினைவும் எழும் சூரியனை!
உண்ண யார் எழுப்புகிறார்?
நுண்ணிய கிண்புத நிலவே
யாருக்காக நினைவும் மாற்றிக்கொடுக்கிறாய்....!
உண்கதி என்ன அவ்வளவு
கோமம், மனையுயரம் விழுந்திருக்கிறாய்....!
வானவிலம்பே....!
ஒரு வண்ணத்தில் யாருக்காகப் புகழை
அடைக்கிறாய்....!
எல்லாம் மனிதனுக்காக கிண்பு ஆனால்
நாம் எல்லாருக்கும் எடுத்துக் கொள்ளலாம்....!

நடப்பு

நல்லையே!!
உயிர் கொடுப்பான்..
உயிர் கொடுக்காமல் இருக்கான்..
உயிர் கொடுக்க இயலாது..
விண்ணாருக்கும் நடப்பு கிடைக்கலாம்..
ஆனால், எந்த ஆதி
எதிர்பார்ப்பும் இல்லாமல்
என்றுகூட நம்முடன் இருக்கிறது
நடப்பு கிண்புதால்,
நம் வாழ்க்கையின் ஆதி குறையுமா!!

POEM BY: RAKSHA - THIRD YEAR

WOMEN EMPOWERMENT

INTRODUCTION:

Women empowerment refers to making women powerful to make them capable of deciding for themselves. Women have suffered a lot through the years at the hands of men. In earlier centuries, they were treated as almost non-existent. As if all the rights belonged to men even something as basic as voting. As the times evolved, women realised their power. There on began the revolution for women empowerment.

As women were not allowed to make decisions for them, women empowerment came in like a breath of fresh air. It made them aware of their rights and how they must make their own place in society rather than depending on a man. It recognised the fact that things cannot simply work in women's favour because of their gender.

Malavika Hedge has become a super woman who holds the iconic brand of Cafe Coffee Day together.

HER DETERMINATION:

"My association with Siddhartha is 26 years. Institution is his world. Employees are family members. I took on the responsibility of running the empire he built."

She assumed that the Coffee day story was "worth pursuing"

CONCLUSION:

"A strong woman knows she has strength enough for the journey, but a woman of strength knows it is in the journey where she will become strong."

MALAVIKA HEDGE
(CEO OF CCD)

"The woman who rose like a phoenix"

The saga of Malavika Hedge who stepped Cafe Coffee Day from dying.

The rise of V. Siddhartha, CEO of India's most famous coffeehouse chain, Cafe Coffee Day, death left people in shock. A typewritten note was found after Siddhartha's death which had revealed how much he was under debt. He mentioned, "failing to create the right profitable business model."

There was a debt of Rs. 2600 crore on CCD, the total debt stood at coffee day Enterprises Limited (CDEL), the parent company of CCD, which stood at Rs. 1200 crore as of March 2019.

Malavika took over as the CEO of the Cafe Coffee Day Enterprises Ltd (CDEL). The debt was brought down to Rs 3100 crore as of 31 March 2020 from Rs 1200 crore in March 2019. It further dropped to Rs 1731 crore in 31 March 2021.

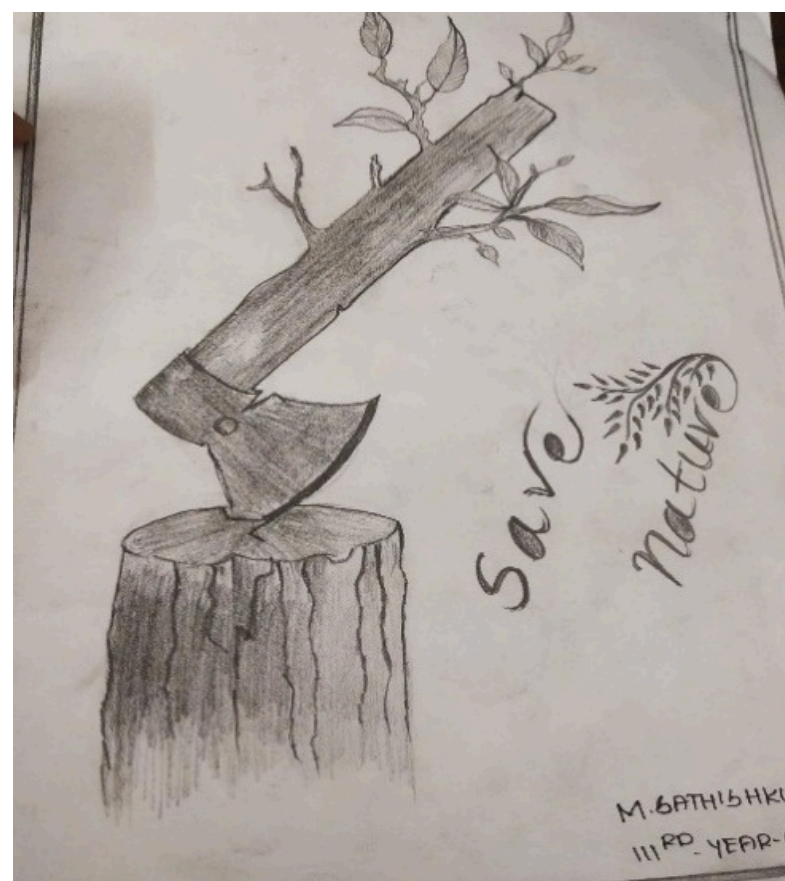
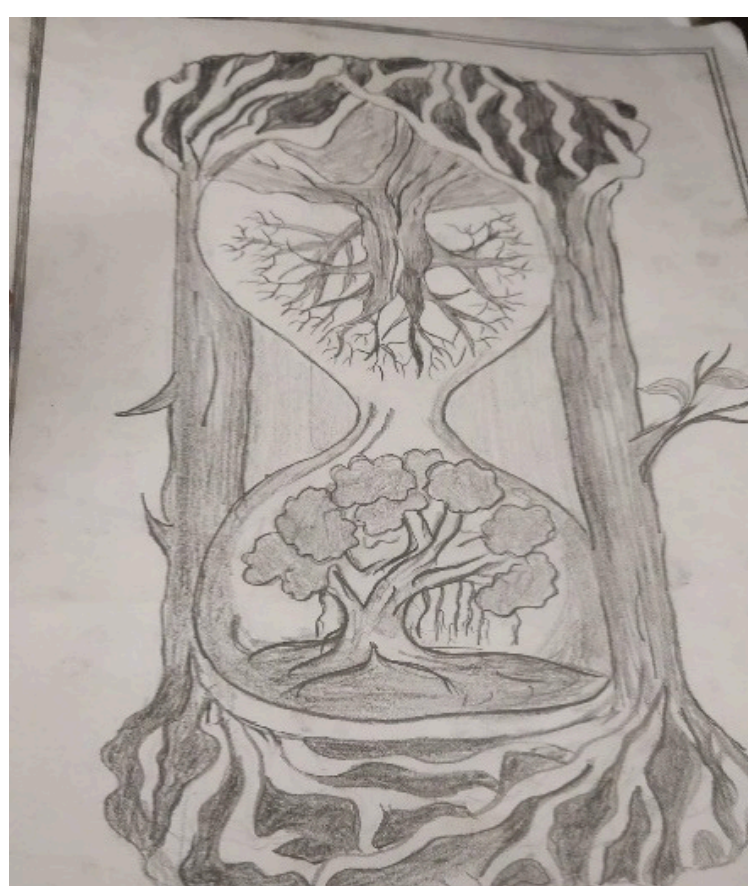
NEED FOR WOMEN EMPOWERMENT:

Almost every country, no matter how progressive has a history of "ill-treating women". In other words, women from all over the world have been rebellious to reach the status they have today. While the western countries are still making progress, third world countries like India still lack behind in Women Empowerment.

In India, Women Empowerment is needed more than ever. India is amongst the countries which are not safe for women. There are various reasons for this. Firstly, women in India are in danger of honor-killing. Their family thinks it's right to take their lives if they bring shame to the reputation of their legacy.

Moreover, the education and freedom scenario is very regressive here. Women are not allowed to pursue higher education, they are married off early. The men are still dominating women in some regions like in the women's duty to work for him and his family. They don't let them go out or have freedom for any kind

PARAGRAPH WRITING BY: JACINI - FINAL YEAR



ART WORKS BY: VISHALI - FINAL YEAR

PLACEMENT DETAILS

- Southern Petrochemical Industries Corporation Ltd, Tutucorin.
- Tuticorin Alkali Chemicals and Fertilizers Limited (TFL), Tutucorin.
- The Sanmar Group, Chennai.
- Tamil Nadu Petro-products Limited, Chennai.
- Cipla Limited, Bengaluru.
- Tagros Chemicals India Limited, Cuddalore.
- Biocon Limited, Bengaluru.
- Divi's Laboratories Limited, Hyderabad.
- Global Calcium Private Limited, Hosur.
- Anjan Drug Private Limited, Chennai.
- Anabond Limited, Chennai.
- Bannari Amman Group, Coimbatore.
- Wafe Auxiliary Chemicals Pvt. Ltd, Coimbatore.
- United Heat Exchangers, Coimbatore.



DINESHKUMAR S

Bannari Amman Sugars Ltd,
Karnataka
salary: 2.76 LPA



JACINI S

Chemin Eviro Systems Pvt
Ltd, Perundurai.
Salary: 1.73 LPA



NANDHAKUMAR S

Chemin Eviro Systems Pvt Ltd,
Perundurai.
Salary: 1.73 LPA



RAM KUMAR

Tagros Chemicals India
Pvt Ltd, Cuddalore.

Salary:2.08 LPA



AJAY U

Sree Rengaraj Ispat Industries
Pvt. Ltd, Perundurai.

Salary:1,44 LPA



SIVA M

Pon Pure Chemicals Group,
Chennai.

Salary:2.78 LPA



ABILASH A U

Tagros Chemicals
India Pvt Ltd,
Cuddalore.

Salary:2.08 LPA



HARIHARASUDHAN A

Pon Pure Chemicals Group,
Chennai.

Salary:2.7 LPA 8



AKASH RAJA R

Tagros Chemicals India
Pvt Ltd, Cuddalore.

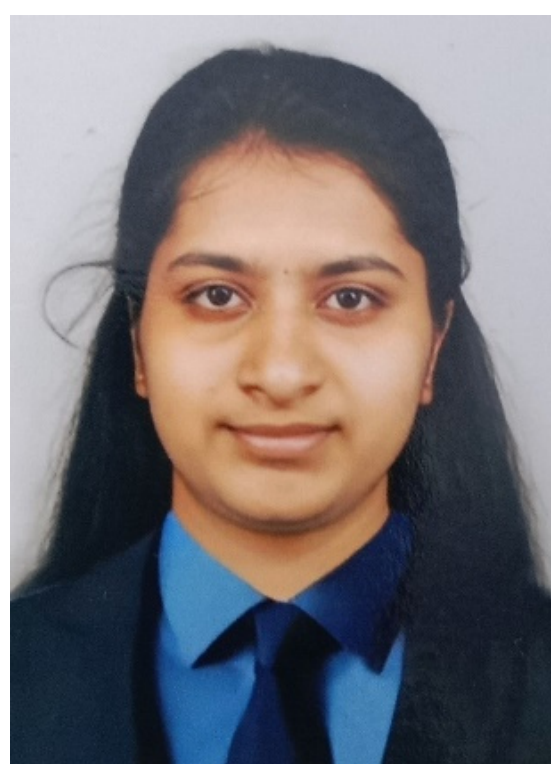
Salary:2.08 LPA



PARTHIBAN P

Tagros Chemicals India Pvt
Ltd, Cuddalore.

Salary:2.08 LPA



Harini S

Optima Heat Solutions
Pvt. Ltd, Paramakudi.

Salary:2.4 LPA



Indhumathi S

Vishal Tribo Tech,
Bangalore.

Salary:2.2 LPA