

DEPARTMENT OF CHEMICAL ENGINEERING
COLLEGE OF ENGINEERING AND TECHNOLOGY
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)



For details contact:

DEPARTMENT OF CHEMICAL ENGINEERING
SCHOOL OF BIOENGINEERING

Phone: 044 – 27417818

Email: hod.chem.ktr@srmist.edu.in

UNDER GRADUATION (B. Tech.)

- ★ Chemical Engineering
- ★ Chemical Engineering with Specialization in Computational Process Engineering

POST GRADUATION (M. Tech.)

- ★ Chemical Engineering

DOCTORAL PROGRAMME (Ph. D.)

- ★ Chemical Engineering and allied disciplines

ABOUT THE INSTITUTE

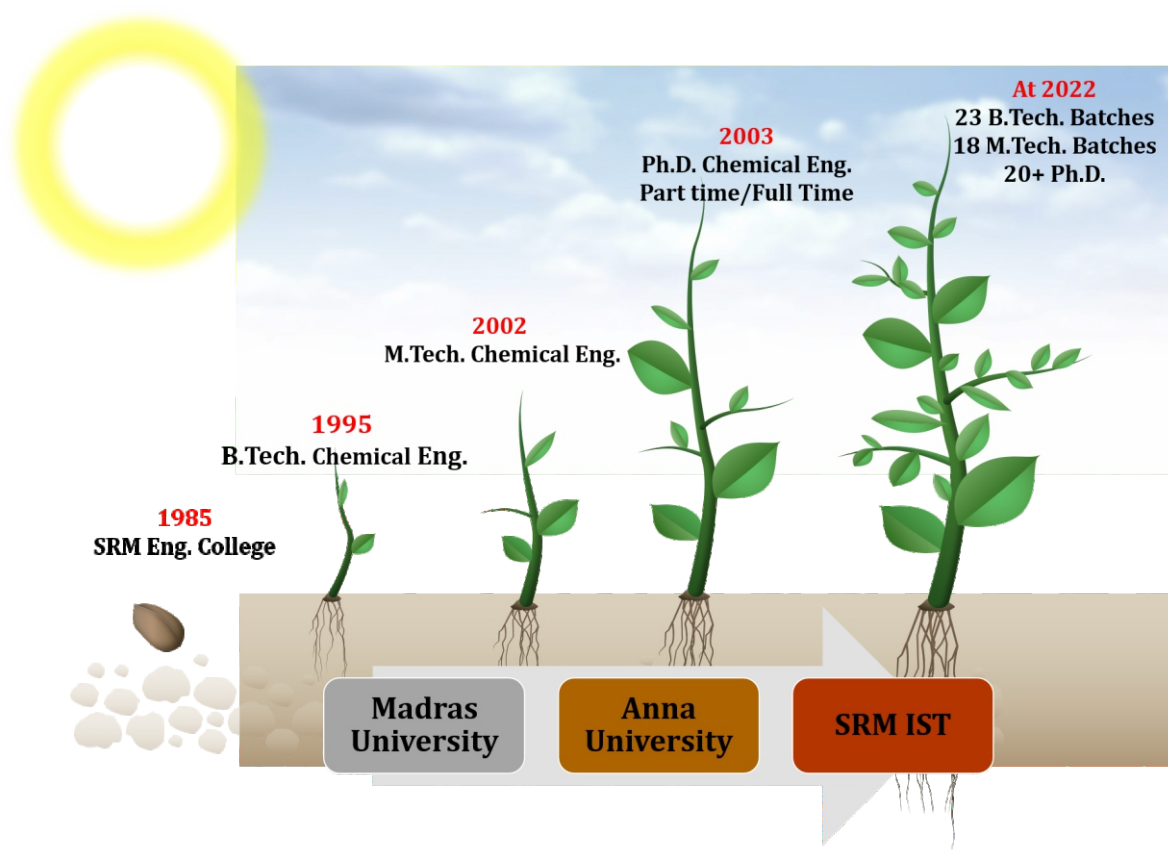
SRM Institute of Science and Technology (SRMIST) (formerly known as SRM University) is one of the top ranking universities in India with over 52,000 students and 3200 faculty members, offering a wide range of undergraduate, post graduate and doctoral programs in Engineering & Technology, Management, Medicine & Health sciences, Science & Humanities, Law and Agricultural sciences. SRMIST has been accredited by NAAC (National Assessment and Accreditation council- an Autonomous Institution of the University Grants Commission) with “A++” the highest grading. The University Grants Commission (UGC) and Ministry of Human Resource Development (MHRD), Department of Higher Education, Government of India, granted graded autonomy to SRMIST by classifying it as Category I University. SRMIST secured 4th position among private institutes across our country under ARIIA ranking (Atal Ranking of Institutions on Innovations Achievements) - a ranking instituted by Ministry of Human Resource Development, Government of India.

<https://www.srmist.edu.in/>

ABOUT THE DEPARTMENT

The Department of Chemical Engineering was started in the year 1995 offering B.Tech. Degree programme in Chemical Engineering as one of the core departments of SRM Engineering College under the University of Madras. The department started offering a post-graduate programme, M.Tech. (Chemical Engineering) since 2002. From the academic year 2003-2004, the department started functioning under SRM Institute of Science and Technology. The department now offers B.Tech. (Chemical Engineering), M.Tech. (Chemical Engineering) and Ph.D. (Part time and full time) under SRM Institute of Science and Technology. So far 23 batches of B. Tech. students and 18 Batches of M. Tech students have graduated from this department with meritorious performance. Presently, the department has 15+ Ph.D. scholars working on various socially relevant projects.

<https://www.srmist.edu.in/engineering/department-of-chemical-engineering/about-the-department>



VISION OF THE DEPARTMENT



To harness the potential of Chemical Engineering and Technology and use it as a delivery system for the overall socio-economic growth, welfare and progress of Indian society and world-at-large by supporting industries through Research and Development, consultancy and providing high quality Chemical Engineers.

MISSION OF THE DEPARTMENT



- To provide training that helps students to develop an ability to meet the expectations of Industry, Academia and Research in the fields of Chemical and allied process industries
- To develop skills of the students including leadership, project management, creative thinking and trouble shooting
- To implant ethical, environment and social responsibility among the students
- To play a role in improving the life of living beings by addressing their issues in rural, urban and industrial sectors using chemical engineering principles
- To actively participate and contribute in upcoming technological advancements globally and locally, and also to solve the problems arising against sustainable development

ABOUT THE PROGRAMME

B. Tech. Chemical Engineering

The B. Tech. Chemical Engineering programme curriculum with its outcome-based pedagogy for theory, experimental and computational laboratory course works is designed to impart the skill-sets and expertise necessary for graduating chemical engineers to work and excel in varied process industries. The departmental and open elective courses, semester abroad programme, industrial internships, multi-disciplinary projects, research-based project work etc. provide students the flexibility to plan their future career in a particular process technology industry, research and development positions, higher studies in India and abroad.

M. Tech. Chemical Engineering

M. Tech. Chemical Engineering is an advanced programme with lab-associated professional core course works and a research project component. The curriculum and the outcome-based evaluation methodology are designed to equip graduate chemical engineers with advanced proficiency in chemical engineering theory and practice. It introduces students to experimental and/or computational research and is expected to lead to technical outcomes such as publications, patents etc. This programme imparts skills-sets necessary to work in industrial research and process development, technical services, and project engineering.

<https://www.srmist.edu.in/engineering/department-of-chemical-engineering/about-the-department>

ELIGIBILITY CRITERIA: 10 +2 passed with 60% and SRMJEE ranking

Program Educational Objectives (PEO)

PEO – 1: To prepare and facilitate graduating students for job opportunities in Research and development, production and process development in oil and gas, petrochemical, plastics and rubber, pharmaceutical, biotechnology, food and environmental industries

PEO – 2: To empower undergraduate students with skill-sets and tools necessary for pursuing higher education in Chemical engineering and allied areas of technology

PEO – 3: Empower students to become entrepreneurs for small-scale chemical and allied industries

PEO – 4: To enable students to strive towards sustainable development

SCOPE OF CHEMICAL ENGINEERING

Chemical Engineering is one of the core branches of engineering that has its application in wide range of industries dealing with polymers, paints, pharmaceuticals, rubber, oil and gas, dyes, semiconductors, fuels, energy, environment, etc. Chemical Engineers are expected to design and operate plants keeping in mind the safety and economics of the process as well. The emergence of several new allied fields such as nanotechnology, membrane separations, micro and nanofluidics, sensors, etc. has opened several avenues for chemical engineers. The integration of core chemical engineering concepts with new software tools and sophisticated instrumentation has resulted in better understanding and control of processes. Chemical engineers find promising career prospects in industries and organizations involved in design, production, research and development and consultancy in chemical, environmental, biotechnological, petroleum, and several allied areas.

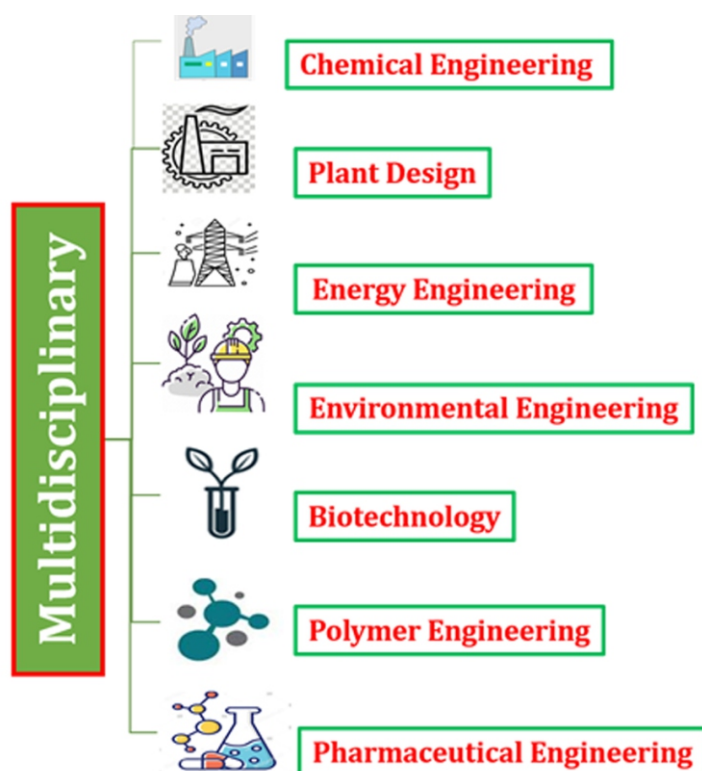
FACULTY

The department has highly qualified faculty having experience in research and industry. The department has equality at all levels with equal number of well-experienced male and female faculties. Overall, 90 % of the faculty members are holding a doctoral degree, with many from prestigious institutions like IIT, IISc and Foreign Universities. The faculty members of the department contribute to academia by publishing research articles, books, presenting research papers in international and national conferences, delivering guest lectures and organizing technical events. The department faculties have approved doctoral guideship at SRMIST and work on diverse research areas in Chemical engineering and allied areas.

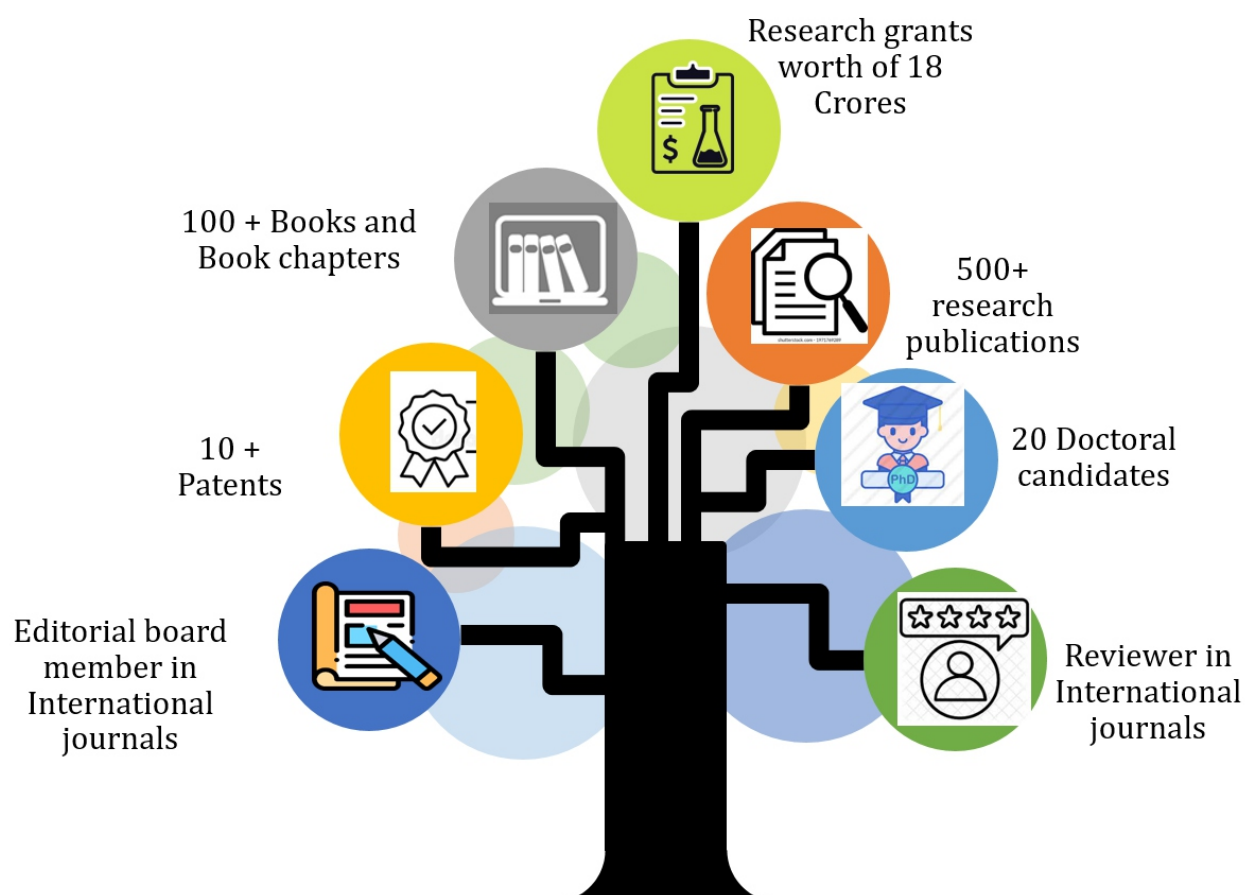
<https://www.srmist.edu.in/content/faculty-chemical-engineering>.



ACADEMIC SPECIALIZATION OF FACULTIES



RESEARCH HIGHLIGHTS



OTHER CONTRIBUTIONS

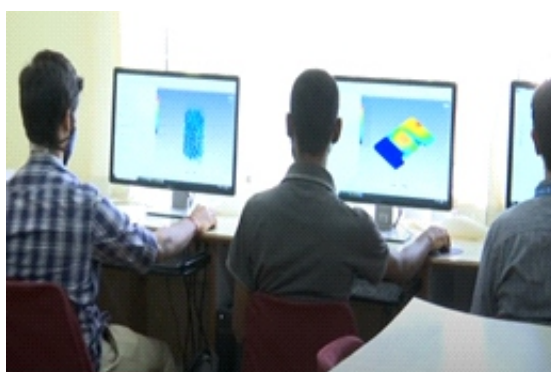
The faculty members also serve as

- Reviewer in International journals
- Editorial board member in reputed international journals
- Expert member in various committees including central (CPCB) and state government (TNPCB)
- Resource person in various academic institutions in India and abroad
- Members in professional societies (IChE, InDA, ISC, AIChE, IET, ISTE)



INFRASTRUCTURE

- Well-equipped laboratories aided with software tools
- Well-furnished staff rooms
- Exceptional library facilities within the department
- Competent number of smart classrooms
- Conference Hall equipped with audio visual facilities
- Wi-fi & LAN connectivity



RESEARCH FACILITIES

Atomic absorption spectroscopy

High Performance Liquid Chromatography

Inverse Fluidized Bed Reactor

Lyophilizer

Membrane Manufacturing Unit

Membrane Distillation Unit

UV-visible spectrophotometer

Electrochemical work station

Rotary Vacuum Evaporator

Cooling Centrifuge

GC- Electron Capture Detector

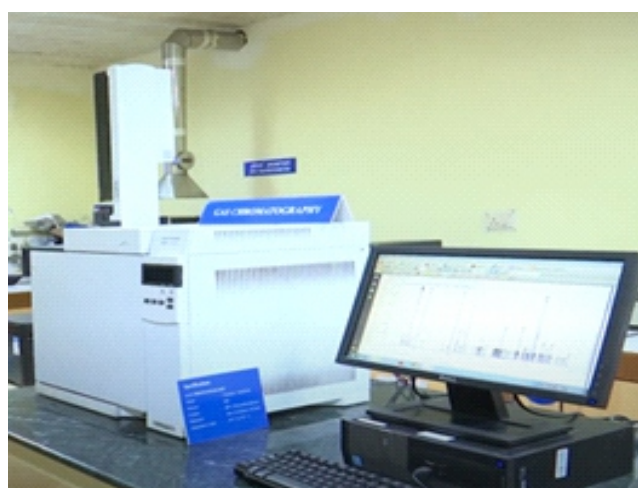
GC-Mass Spectrometry

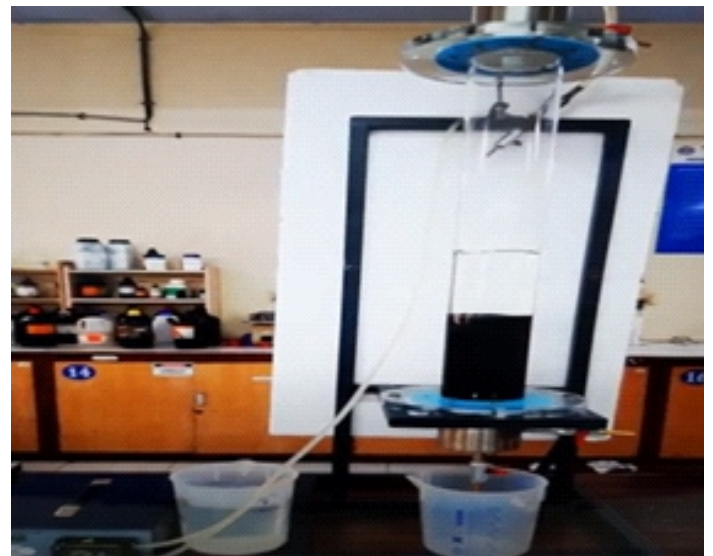
Microwave Extraction and Digestion Unit

Fume Hood

Nano-drop spectrometer

Upright Freezer







THRUST AREAS

The Department of Chemical Engineering, SRMIST is active in the research covering wide areas in the field of core chemical engineering like reaction engineering, transport operations and computational chemical engineering, and allied fields including

- Environmental science and technology – Detection, monitoring and remediation of environmental pollutants as well as membrane-based desalination and water treatment technologies
- Biochemical and bioprocess technology – Converting biomass to biofuels and other bio-products, microbial fuel cells
- Electrochemical engineering – Electrochemical valorization, Fuel cells, Detection of pollutants
- Nanotechnology and Microfluidics – Synthesis and application of nanoparticles; Development of Lab-on-a-chip sensors.

INTERNATIONAL FUNDING

Research grants worth nearly Rs. 14.17 crore have been obtained by our faculty members from international funding agencies like

The Association of
Commonwealth Universities (ACU)

London, United Kingdom



University of Nebraska

Lincoln, Nebraska,
United States of America



The Research Council of Norway
(Government agency under
Norwegian Ministry of Education and Research)

Norway



The Norwegian Agency for Development Cooperation (NORAD)
(Government agency under the Norwegian Ministry of
Foreign Affairs)

Norway



Swiss Agency for Development and Cooperation
(Government agency under the federal administration
of Switzerland, and a part of the Federal Department
of Foreign Affairs)

Switzerland



NATIONAL FUNDING

Research Grants totalling Rs. 3.31 crore were received from national funding agencies such as

Water Technology Initiative (WTI) [under Department of Science and
Technology (DST), Government of India (GOI)]



Science and Engineering Research Board (SERB)
[under Department of Science and Technology (DST),
Government of India (GOI)]



The Ministry of Environment,
Forest and Climate Change (MoEFCC)

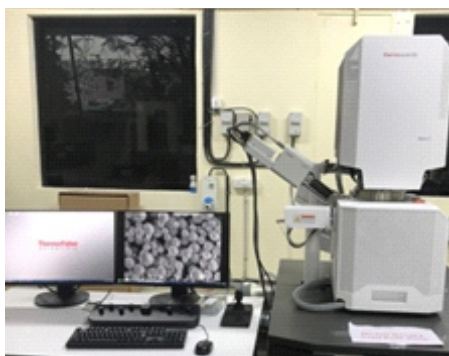


The Indian Council of
Medical Research (ICMR)



INTERNAL FUNDING

Under the Selective Excellence Research Initiative (SERI) scheme, the parent institution (SRMIST) has provided a research fund of Rs. 22 lakhs.



INDUSTRY- INSTITUTE INTERACTIONS

The Chemical Engineering Department has strong industry-institute interactions. The department has active collaboration with industries and reputed institutes such as Universiti Malaysia Pahang, Malaysia; Central Leather Research Institute (CLRI), Chennai; IIT Madras, IIT Bombay; National Institute of Ocean Technology (NIOT) etc., The department has MoUs signed with leading companies like Spray Engineering Devices Ltd., - SEDL, Punjab, Sardar Patel Renewable Energy Research Institute SPRERI- Gujarat, Memfill Tech Private Ltd. Trichy, Tech Inc. Chennai, Davey Products, Chennai, G.E.T. Water Solutions Pvt. Ltd., Chennai, Human Biogenesis Pvt. Ltd., West Bengal which bring a stream of competence with them.



SEMESTER ABROAD PROGRAM

SRMIST is leading with Semester Abroad Program (SAP), a novel drive giving its students a worldwide openness and global opportunities. Through the SAP a diverse meritorious students have been sent to another country to read up for one or more semesters to renowned universities, specifically University of California (Davis, California), Massachusetts Institute of Technology (Massachusetts, USA), University of Wisconsin (Madison, USA), Universiti Malaysia Pahang (Pahang, Malaysia), Nanyang Technological University (Singapore) and Sungkyunkwan University (South Korea).

Website: <https://www.srmist.edu.in/sap/>



Massachusetts
Institute of
Technology



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON



MAANASA GOPAL
NTU-Singapore



GAURI SENGAR
Sungkyunkwan University
South Korea



FIIP-FACULTY INDUSTRY IMMERSION PROGRAM

Faculties are provided with extensive opportunities to undergo training in various top level core industries like, Manali Petro chemicals Private Limited, National Institute of Ocean Technology, Synkromax, Pondchy Pharmaceuticals and Metecno India Private Limited.



STUDENT ACTIVITIES

National level technical symposium “Chemflux”

Chemflux is organized by the students of the Department of Chemical Engineering, SRMIST Kattankulathur and it is conducted every year since 2014. Chemflux aims to create an environment where various innovative ideas can be discussed and shared freely. Chemflux is conducted every year with a new theme that challenges the youth of the nation to experiment and think in real life situations. With technical events including informative lectures and paper presentation, Chemflux inspires young minds and encourages maximum participation from all over the nation.



IIChE STUDENTS CHAPTER

Department of Chemical Engineering, SRM Institute of Science and Technology has formed the Indian Institute of Chemical Engineers (IIChE) Student's Chapter since 2013. The Indian Institute of Chemical Engineers is the apex professional body of Chemical Engineering professionals in India. Student members pursuing under-graduate degrees in Chemical Engineering form Student Chapters, under the auspices of the respective Regional Centres. The primary objectives of Student's Chapter is to promote students in Chemical Engineering and arrange symposia, lectures, seminars, short courses, plant visits, etc., at regular intervals to better equip and empower the students when they come out of their academic community.

SRM INNOVATION INCUBATION AND ENTREPRENEURSHIP CENTRE (SIIEC)

SIIEC provides funding support to innovators who are looking to build startups or innovative projects. SIIEC provide fund up to 2.5 Lakhs under NewGen IEDC Program. This fund will be for the development of the prototype.

Website: <https://www.srmiic.com/>

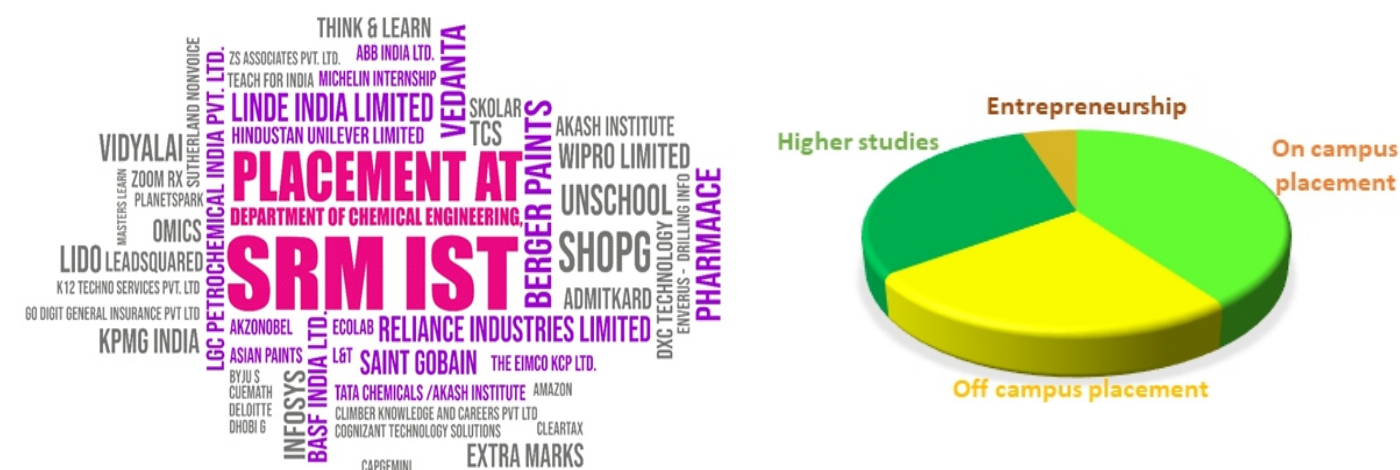
THE SRM CHEMICAL CLUB

The SRM Chemical club (TSCC) was inaugurated in September 2021 with a goal of nurturing young talents and to motivate the students to involve in research projects, prototype-building, and showcasing their myriad aptitudes in various technical events. The tagline of the club is “Thriving and Growing” aimed at progressive learning and achieving greater heights. The student-centred club has remained very active by organizing several alumni talks and fun technical games. The current enrollment in the club is 97 members.

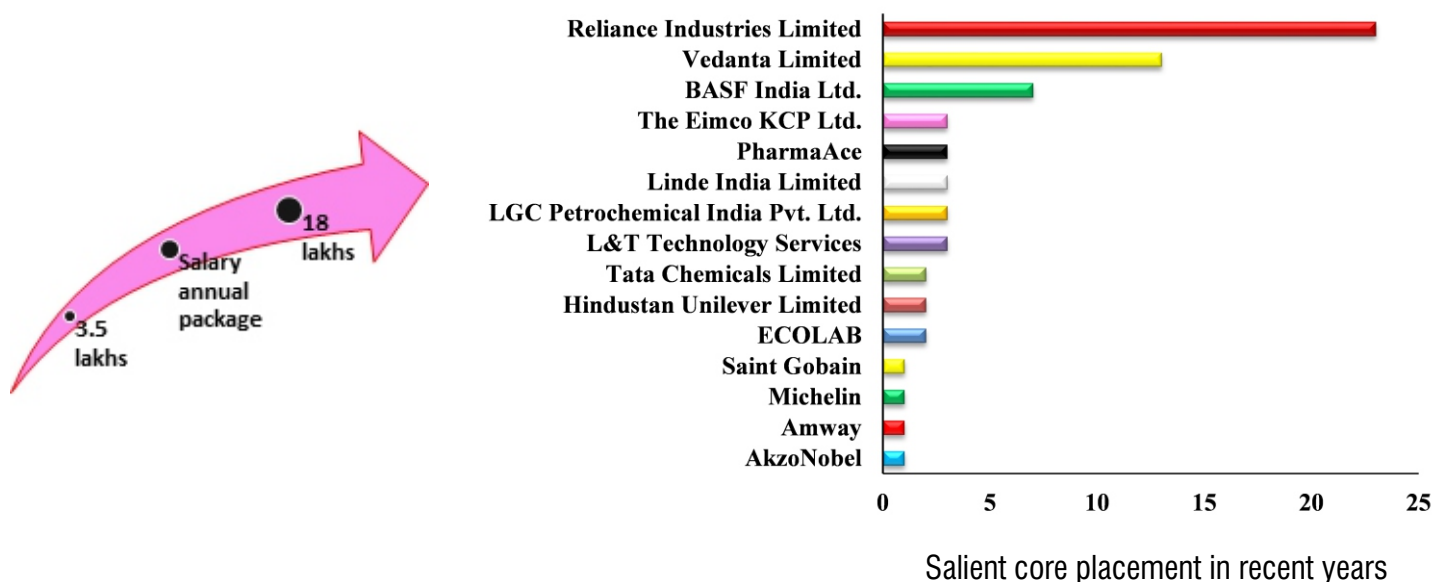
Website: <https://thesrmchemicalclub.wixsite.com/website>

JOB OPPORTUNITIES AND PLACEMENT

Employers are as diverse as the products they produce and cover a broad range of industrial sectors involving conversion of raw materials into a product such oil and gas prospecting and extraction, oil refining, renewable energy generation, pharmaceuticals, fine and heavy chemicals, agrochemicals, electronic and hi-tech materials (semiconductor industry), food, pulp and paper, plastic and metals, fibers and polymers etc., Many chemical process engineers also work for engineering, procurement, and consultancy (EPC) firms.



PLACEMENT SCENARIO – DEPARTMENT OF CHEMICAL ENGINEERING, SRM IST



CORE COMPANIES VISITING

DEPARTMENT OF CHEMICAL ENGINEERING, SRM IST FOR PLACEMENT



EIMCO KCP LTD



STUDENT ACCOMPLISHMENT

The Department encourages the students to improve their techno-management skills through extra-curricular activities. Students are encouraged to be part of various professional bodies/ student chapters, professional teams/clubs based on their passions. National/International level seminars and conferences are organized and conducted. Furthermore, students are always encouraged to participate in various technical, cultural and sports events. Our students have won many prizes in the Tech fests like Chemclave –IITM, Chemfluence-Anna University, Chem-E-Car- VIT, organized in India and in internationally organized events viz., PETROFAC, Sharjah, UAE. Students have published their work in international journals and obtained patents. Meritorious students have received Performance based scholarships from SRMIST management.

Students have performed their major project work, Internships in different international organizations such as Majis Industrial Services S.A.O.C (Oman). GNS Science (New Zealand) and KT - Kinetics Technology (ITALY).



GATE CHAMPIONS



SOMNATH SHARMA
AIR 54 (2015)



UJJWAL BAJPAI
AIR 93 (2015)

INTERNATIONAL AWARD WINNERS



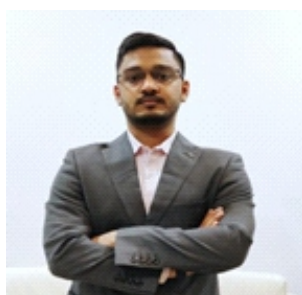
Peddi Nikhil

- ★ SENER scholarship (cash prize of Three lakh rupees) was awarded by Sener Foundation, Spain, for excellence in academics and extracurricular activities. This scholarship was awarded to five Indian students and he was one among them.
- ★ He has received a fully sponsored JENESYS 2.0 program - Visit to Japan, by the Japanese government for his outstanding academic performance and language skills.



Adithya Sridhar

- ★ Won the Gold Medal for the “Best Idea Presentation Award on Solar Paints” and a trophy for “Young Genius Innovation Award” out of 115 teams in IFINOG 2019 (International Festival of Innovation on Green Technology) held at University Malaysia Pahang during April 2019.



Kaushal Kothari

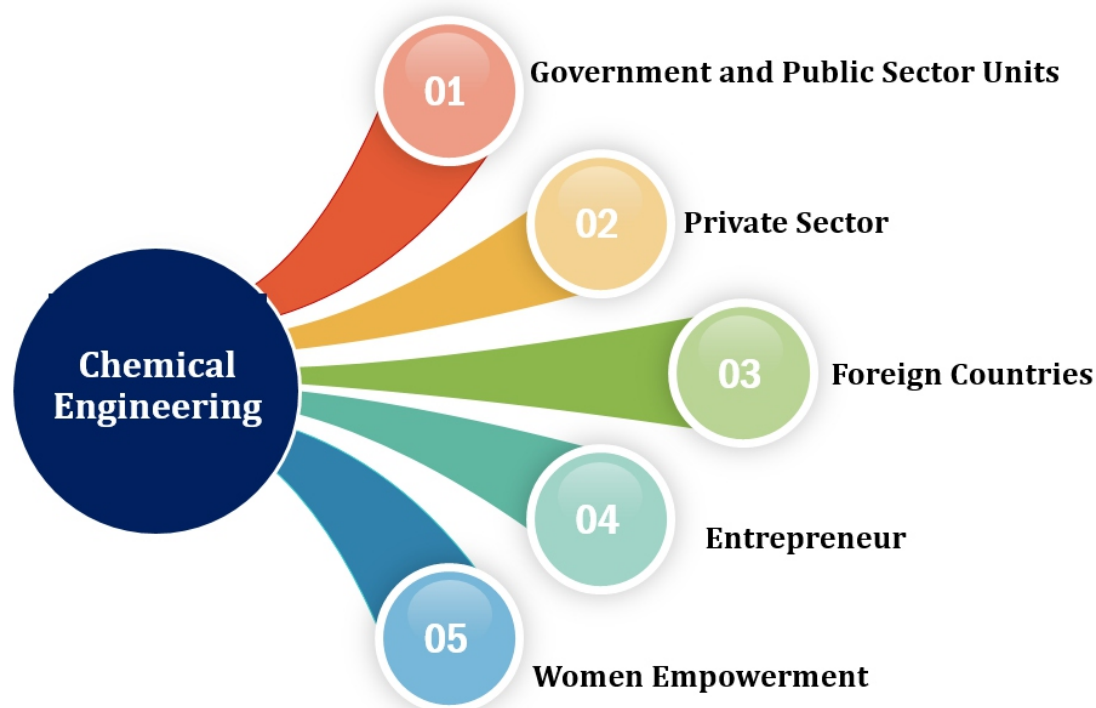
- ★ Winner of New York University Reynolds D-Prize Global Social Venture Competition 2017 and received a grant of 20,000 USD.

ALUMNI CONNECT

The Department of Chemical Engineering and the Directorate of Alumni Affairs (DAA), SRMIST have ensured continual interaction of the alumni with the current students and faculty in the department. Distinguished alumni speakers pursuing higher studies in reputed Universities in India and abroad have given a global perspective of higher education thus motivating our students to reach new heights. Alumni working in reputed organizations both in India and abroad as Senior Business Analyst, Lead Process Engineer, Researcher, Procurement Specialist, CEO and Co-founder often interact with the budding Chemical Engineers of our department and inspire them to know what awaits them when they pass out of college.

Well placed alumni with an overall strength of 1593

Programme	Years	Alumni Strength
B.Tech	1999 - 2021	1466
M.Tech	2022 - 2021	117
Ph.D	2033 - 2021	12



ALUMNI JOURNEY



ALUMNI WORKING WITH THE GOVT. OF INDIA



Saptaparna Sarkar
Scientific Officer
AERB, Mumbai
Maharashtra
2010



Vipin Kumar Sharma
Additional Superintendent (Mill)
UCIL, Cuddapah
Andhra Pradesh
2010



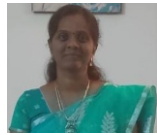
ALUMNI WORKING IN PUBLIC SECTOR



**Kanuparth Naga
Raja
Chief Manager
HPCL, Bengaluru
Karnataka**



2001



K.B. Dhiravida Selvi
Manager
HPCL, Bengaluru
Karnataka



2003



Rajarshi Roy
Assistant
Manager
HPCL, Mumbai
Maharashtra



2011



Somnath Sharma
Assistant Manager
BPCL, Mumbai
Maharashtra



2015



Ujjwal Bajpai
Assistant
Manager
IOCL, Siliguri
West Bengal

































Indian Oil Corporation Limited

2015

ALUMNI WORKING IN PRIVATE SECTOR

 <p>Sneha Narasimhan Quality Assurance Executive HUL, Pondicherry  2020</p>	 <p>Namrata Kumar Technologist RIL, Vadodara  2018</p>	 <p>Trishanka Menon Assistant Manager Paques India, Chennai  2016</p>	 <p>Janesh Bakshi Technical Project Manager StockX, Bengaluru  2014</p>	 <p>T T Raghuveer AVP Kotak811, Bengaluru  2012</p>
 <p>Sivalingam Nandikesh Director CREA, Bengaluru  2006</p>	 <p>M. Sathish Kumar Regional Head Hettich India Pvt. Ltd. Chennai  2003</p>	 <p>V. Rajesh Kumar Plant Manager Sonic Fuel Components Maraimalai Nagar 1999</p>	 <p>R. Thamarai Selvi Associate Vice President TVS Sun Tyre & Wheel Systems, Chennai  2003</p>	 <p>Deepa Narayanan Senior Manager Crompton Greaves Consumer Electricals Limited, Mumbai  2002</p>

ALUMNI WORKING ABROAD

 <p>Aalekha V Environmental Scientist ERA, EMS, Canada, 2019  </p>	 <p>Soumyajit Chowdhuri Associate Engineer Translate Bio Massachusetts, 2018  </p>	 <p>Shruthi Vatsyayani Ganesh P Operations Program Manager, Apple California, 2015  </p>	 <p>Peddi Nikhil Procurement specialist Yamaha Motor Ltd Japan, 2015  </p>	 <p>S Kirtana Product Technologist PZ Cussons Australia, 2017  </p>
 <p>Mary Jislin Josy Environmental Engineer Qatar Design Consortium, 2017  </p>	 <p>Sarath Sasidharan Factory Manager Star Modern Industries Muscat, Oman, 2017  </p>	 <p>Ritwik Pattanayak Project Test Lead Tech. Mahindra, Slough England, 2009  </p>	 <p>Ahiliya Sen Process Engineer imec, Leuven Belgium, 2018  </p>	 <p>Jeba Kala Arputharaj Senior Business Analyst Commonwealth of Massachusetts Boston, 2003  </p>

ALUMNI ENTREPRENEURS

 <p>G. Maanasa Director SuperNeo Singapore 2018</p>	 <p>Sakthi Balan R Executive Director Amezoltech India Private Limited Erode 2018</p>	 <p>Srikrishnan Shivakumar Sr. NGP Insights Analyst Imperial Brands England 2014</p>	 <p>Dinesh R M Chief Enterprise Architect - IT Portfolio & Project Management Team solutions LLC Doha, Qatar 2008</p>	 <p>Anirudh Ranganathan Founder & CEO Quest Compbio Pvt. Ltd. Chennai 2007</p>
 <p>Rashed Sheriff Managing Director EnviroTek Wissenschaftlers Pvt. Ltd. Coimbatore 2007</p>	 <p>Gopinath T Chief Operating Officer Incompressible Fluid Control System Pvt. Ltd. Chennai 2005</p>	 <p>Muthamilarasi G Managing Partner Allwin Colours Tirupur 2005</p>	 <p>Niranjan Rao CEO 6degrees Singapore 2003</p>	 <p>Dhandapani Subramanian Director Pondchy Lab Puducherry 2002</p>

WOMEN EMPOWERMENT



Saptaparna Sarkar

•Scientific Officer
•AERB, Mumbai
Maharashtra
2010



K.B. Dhiravida Selvi

•Manager
•HPCL,
Bengaluru
Karnataka
2003



Shivashree S Mohandas

•Marketing Communications Manager
•Saint-Gobain India Private Limited
Chennai
2018



Pragya Murarka

•Senior Process Engineer
•Vedanta, Goa
2019



Manjari Chaturvedi

•Area Operations Manager
•Amazon
Hyderabad
2021



Nivedha Seshadri

•Process Engineer
•Intel Corporation
Oregon
2014



Ratna Ramani

•Director
•Chewy, Boston
2006



Jeba Kala Arputharaj

•Senior Business Analyst
Commonwealth of Massachusetts
Boston
2003



G. Maanasa

•Director
SuperNeo
Singapore
2018



G. Muthamilarasi

•Managing Partner
•Allwin Colours
Tirupur
2005

HIGHER STUDIES IN REPUTED INSTITUTES

Our students have completed their higher studies in reputed institutions in India such as IITs, IISc, IIM, NITs, ICT, BITS, Anna University, etc. They have been selected for higher studies in world renowned universities such as MIT, NUS, UCB, CMU, University of Texas, Ku Leuven, UBC, McGill University, University of Queensland Australia, University of Adelaide, etc., They also hold excellent research positions across the globe. On par with men, women chemical engineers graduated from SRM are also in top notch positions as Associate Vice President, Senior Business Analyst, R & D Manager, Process Engineer, Director, etc., disproving the myth that women are not suited for chemical engineering sector.



THE UNIVERSITY
of ADELAIDE





SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

SRM Nagar, Kattankulathur - 603 203, Chengalpattu District, Tamil Nadu, India
www.srmist.edu.in