

**SDM College of engineering and Technology, Dharwad-02**  
**Department of Chemical Engineering**

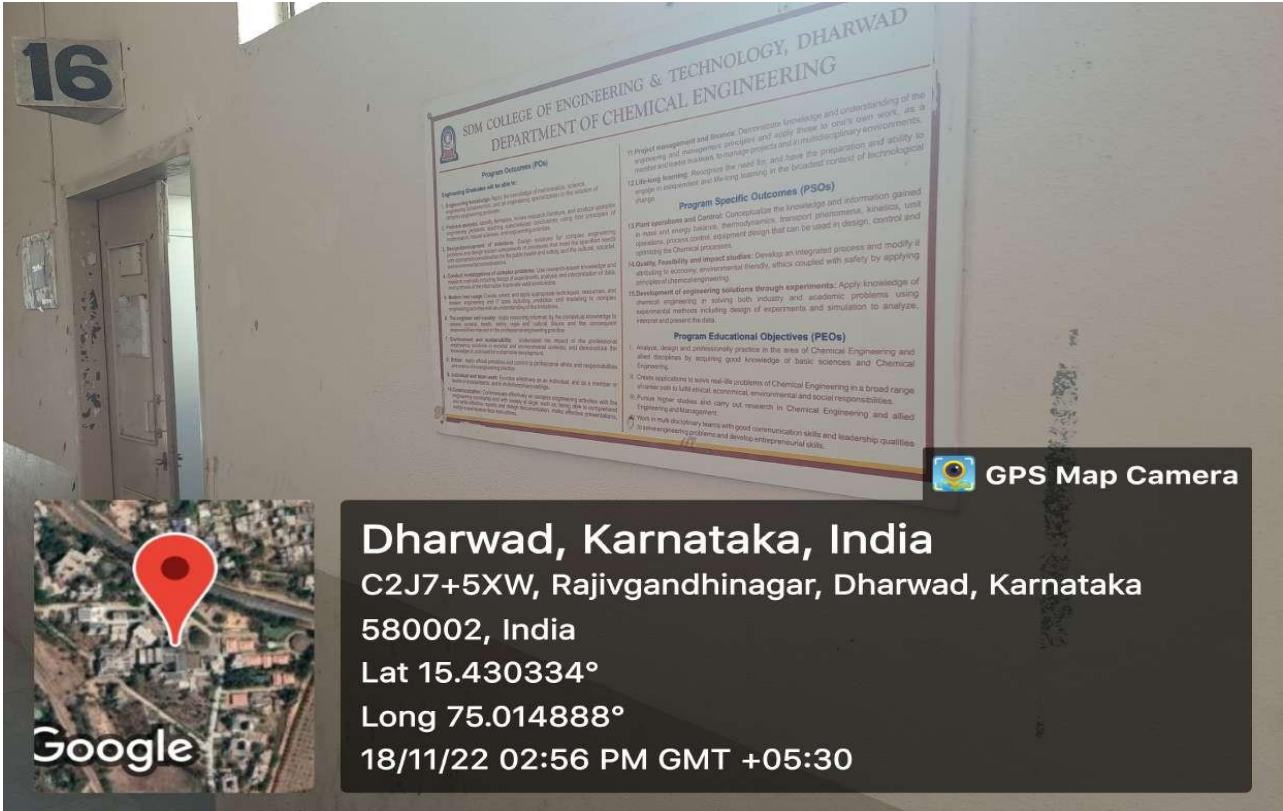
**Program Outcomes (POs)**

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. 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.
- 11. 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 multidisciplinary environments.
- 12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

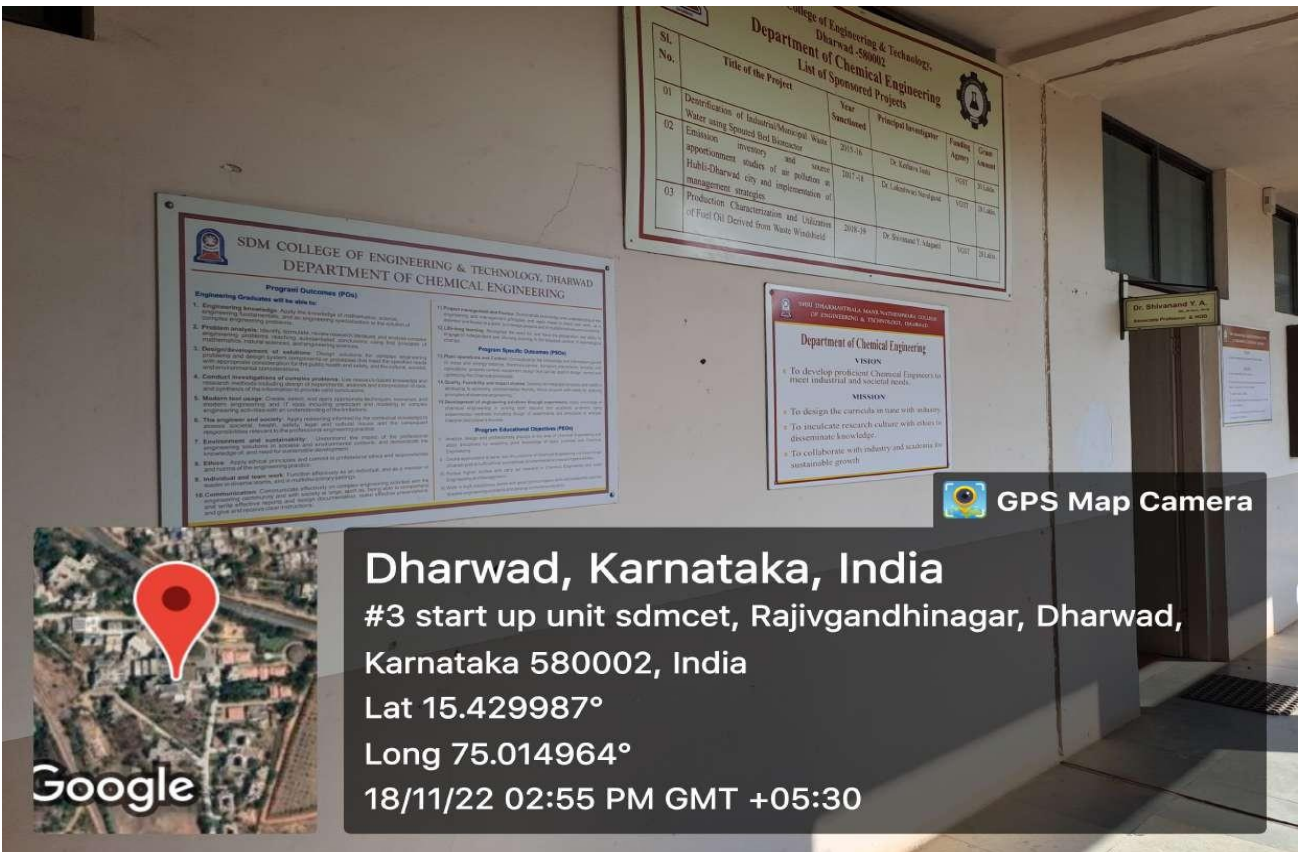
## **Program Specific outcomes (PSOs)**

- 13. Plant operations and Control:** Conceptualize the knowledge and information gained in mass and energy balance, thermodynamics, transport phenomena, kinetics, unit operations, process control, equipment design that can be used in design, control and optimizing the Chemical processes.
- 14. Quality, Feasibility and impact studies:** Develop an integrated process and modify it attributing to economy, environmental friendly, ethics coupled with safety by applying principles of chemical engineering.
- 15. Development of engineering solutions through experiments:** Apply knowledge of chemical engineering in solving both industry and academic problems using experimental methods including design of experiments and simulation to analyze, interpret and present the data.

# Display of POs and PSOs at the Department



**Dharwad, Karnataka, India**  
**C2J7+5XW, Rajivgandhinagar, Dharwad, Karnataka**  
**580002, India**  
**Lat 15.430334°**  
**Long 75.014888°**  
**18/11/22 02:56 PM GMT +05:30**



**Dharwad, Karnataka, India**  
**#3 start up unit sdmcet, Rajivgandhinagar, Dharwad,**  
**Karnataka 580002, India**  
**Lat 15.429987°**  
**Long 75.014964°**  
**18/11/22 02:55 PM GMT +05:30**

Sl. No.	Title of the Project	Year Sponsoring	Principal Investigator	Funding Agency	Grant Amount
01	Identification of Industrial/Municipal Waste Water using Sporend Bio Biosensor	2019-20	Dr. Ramana Reddy	SDCI	25,00,000
02	Emission inventory and water appointment studies of an pollution management strategies	2017-18	Dr. Lakshmi Narayana	SDCI	10,00,000
03	Production Characterization and Utilization of Fuel Oil Derived from Waste Wastehold	2018-19	Dr. Shivanna T. Madgal	SDCI	15,00,000

**SDM INDIAN MATRICULAR BOARD NATIONAL COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD**  
**Department of Chemical Engineering**  
**VISION**  
 To develop proficient Chemical Engineers to meet industrial and societal needs.  
**MISSION**  
 To design the curricula in tune with industry  
 To inculcate research culture with intent to disseminate knowledge.  
 To collaborate with industry and academia for sustainable growth.



**SDM COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD**  
**DEPARTMENT OF CHEMICAL ENGINEERING**

**Program Outcomes (POs)**  
 Engineering Graduates will be able to:

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems using first principles of mathematics, natural sciences, and engineering sciences.
- 3. 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, social, and environmental considerations.
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- 10. 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.

**Program Specific Outcomes (PSOs)**

- 11. Plant operations and Control:** Conceptualize the knowledge and information from engineering and management principles, and apply them to select, use, and evaluate the process, product or the equipment design that can be used to design, develop and improve the Chemical Engineering.
- 12. Life-long learning:** Recognize the need for, and have the motivation and ability to engage in independent and lifelong learning in the broadest context of engineering.

**Program Educational Objectives (PEOs)**

- 1. Analyze:** Design and professional practice in the area of Chemical Engineering and allied disciplines by applying and extending of their chemical and Chemical Engineering.
- 2. Create:** Apply their knowledge to solve the problems of Chemical Engineering and allied disciplines in all of social, economic, environmental and social responsibilities.
- 3. Pursue:** Higher studies and carry out research in Chemical Engineering and allied Engineering and Management.
- 4. Work:** In multi-disciplinary teams with good communication skills and leadership qualities to solve engineering problems and become an entrepreneur.

 **GPS Map Camera**



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