

# FORCE 2022

*Volume-I*

Department Newsletter



**DEPARTMENT OF MECHANICAL ENGINEERING**

**SAI VIDYA INSTITUTE OF TECHNOLOGY**

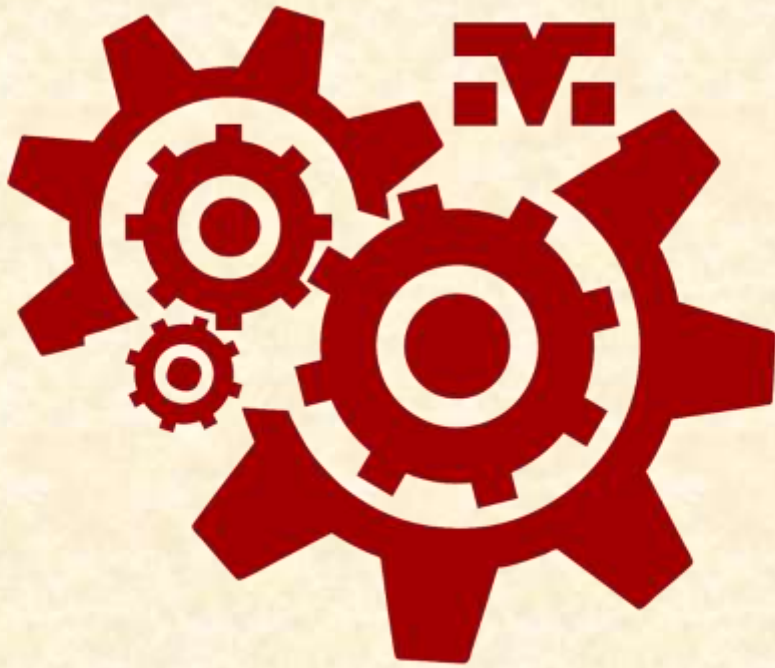
(Affiliated to VTU ,Approved by AICTE, Accredited by NBA, New Delhi,, Recognized by Govt. of Karnataka)

**NBA Accredited (ECE, CSE, ISE, Mechanical, Civil)**

RAJANUKUNTE, BANGALORE 560 064, KARNATAKA

Phone: 080-28468191/96/97/98 \* E-mail: [info@saividya.ac.in](mailto:info@saividya.ac.in) \* URL [www.saividya.ac.in](http://www.saividya.ac.in)





**MECHANICAL  
ENGINEERING**



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ENGINEERING**

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## Editorial Members

Chief Editor: **Dr. Raghavendra S**

Editorial Board Member: **Mr. Vijaya B**

Student Members:

1. Siddhartha J (1VA19ME016)
2. Rajesh.S (1VA19ME010)
3. Sai Charan L (1VA19ME012)
4. Vijay kumar S (1VA18ME028)
5. Shreyas H L (1VA18ME026)
6. Shashwath R Shetty (1VA18ME025)





Sri Sai Vidya Vikas Shikshana Samithi ®  
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## LEARN TO LEAD

**Contribute dedicated, skilled, intelligent engineers and business administrators to architect strong India and the world.**



**To impart quality technical education and higher moral ethics associated with skilled training to suit the modern day technology with innovative concepts, so as to learn to lead the future with full confidence**



### Courses offered

#### Undergraduate Programs

1. BE in Electronics and Communication Engineering
2. BE in Computer Science and Engineering
3. BE in Computer Science and Engineering ( Data Science)
4. BE in Computer Science and Engineering (AIML)
5. BE in Information science and Engineering
6. BE in Mechanical Engineering
7. BE in Civil Engineering

#### Postgraduate Programs

1. Master of Business Administration (MBA)

## Message from Director



**Prof. M.R. Holla**  
Director

*I am pleased to note that Department of Mechanical Engineering, SVIT is bringing out Department Newsletter for 2021-22. I appreciate the enthusiasm of magazine members of the Department who have contributed to the Newsletter. Department newsletter definitely provides a platform to showcase the activities and achievements of the students and staff such as: conferences attended by staff members and students, competitions won by students, innovative projects carried out by students with the guidance of staff, among others. I wish the students and staff of Department of Mechanical Engineering, all success*

## Message from Additional Director



**Dr. A M Padmareddy**  
Additional Director

*Greetings to all the staff members, student friends, parents and other stake holders. I am delighted to present the newsletter of department of Mechanical Engineering. With core emphasize on academics, Department of Mechanical Engineering also motivates and nourishes students and staff members in co-curricular and extracurricular activates. The college standing by the spirit of its Vision had hosted many technical events to showcase the innovations of the young budding engineers. We continue to support the cause of contributing to the society and to the nation by providing a holistic growth to the students by imparting quality education and shaping their character through Induction Training programme*

## Message from Principal



*I am extremely delighted that the Department of Mechanical Engineering is bringing out newsletter every year and this is an on-going process portraying the various Departmental activities. It is great to find a considerable number of achievements in academic and non-academic activities which certainly prove that our staff and students are adequately equipped and possess necessary skill-sets to bring laurels to the institution. I wish that this number may grow in the years to come. My Congratulations to MECH team.*

**Dr Ramesh Babu H S  
Principal**

## Message from HOD



*I am delighted to release annual newsletter of Mechanical Engineering Department “FORCE” for the year 2021-22. During last year, various curricular and co-curricular activities were conducted successfully by the Department. Many Mechanical Engineering faculty members and Students have participated in various training programs and national/International conferences, which was the most encouraging factor; we want to continue this in the coming years also. Through periodic seminars, symposia, workshops, industrial visits and industrial training which are an integral part of the course, the students were equipped with technical knowledge, critical thinking skills and creativity to excel in the engineering profession. The Mechanical Engineering Department is committed to create a conducive atmosphere for the overall development of young brains into bright professionals of future. I believe, that in the years to come, armed with commitment and perseverance of the Mechanical Engineering Department faculty and staff, the department will continue to be the trend-setter in offering an array of curricular and co-curricular activities in order to achieve academic excellence*

**Dr Raghavendra S**

**Associate Professor and Head**

# Department of Mechanical Engineering

## Vision

To establish Mechanical Engineering Department as an excellent centre to produce skilled and intelligent engineers as architects for a strong nation and the world.

## Mission

- To impart quality technical education in Mechanical Engineering domain through an excellent teaching-learning environment.
- Instill ethical values among students to create technologically superior global man power through industry participation

## PEOs

- PEO 1: Our graduates will be competent with strong fundamentals and sound knowledge in the field of Mechanical Engineering.
- PEO 2: Our graduates will practice and incorporate design, manufacture and carryout research activities to mould themselves as successful engineers.
- PEO3: Our graduates will process themselves personally and professionally in taking up state of the art technological challenges and pursuing leadership roles.

## PSOs

- PSO 1: Characterize the performance of a Mechanical Component or a Mechanical System using computational tools.
- PSO 2: Design Mechanical Systems including drives, energy conversion systems , RAC and Fluid power systems as per specifications
- PSO 3: Select , plan and implement the process for manufacturing of Mechanical elements and for assembly of Mechanical Subsystems





**Faculty Members**

1. **Dr. Raghavendra S** , M.Tech , PhD Associate Professor & HOD
2. **Prof. Vijaya B**, M.Tech , (PhD) Associate Professor
3. **Prof. Santhosh S G**, M.Tech , (PhD) Assistant Professor
4. **Prof. Arjun S**, M.Tech , (PhD) Assistant Professor
5. **Prof. Arun R**, M.Tech Assistant Professor
6. **Prof. Mohan G**, M.Tech , (PhD) Assistant Professor
7. **Prof. Sanjay H M**, M.Tech , (PhD) Assistant Professor
8. **Prof. Ganesh C**, M.Tech Assistant Professor



# Advisory Board Members

## **Dr. H S Ramesh Babu**

Principal, SVIT.

## **Dr. Raghavendra S**

Assoc. Prof. & HOD, SVIT.

## **Mr. Vijaya B**

Associate Professor, SVIT.

## **Mr Sridhar Ramakrishna**

Director & General Manager – Tenneco power rain, Yelahanka, Bengaluru.

## **Mr. Govindray Bhat**

Head -Quality AJAX Engineering Pvt Ltd, Doddaballapura.

## **Dr P Mahadeva Swamy**

Prof & Head, Sapthagiri College of Engineering, Bengaluru.

## **Dr Niranjan Hiremath**

Associate Prof & Head, REVA University, Bengaluru.

## **Mr. Alur Raghavendra**

Promoter, Shree Krishna CNC Enterprises

## **Mr. Sourabh Dongre**

Alumnae (2012-16 Batch)

## **Mr. Bharath S**

Alumnae (2013-17 Batch)

The **Mechanical Engineering Department at SVIT** was established in the year 2010 with an intake of 60 students. Mechanical Engineering is one of the most opted courses in engineering arena which has created ever standing demand as the graduates in this course are offered worldwide placement opportunities in Design and Manufacturing sectors of the Industries.

The department is headed by **Dr. Raghavendra S** along with a team of enthusiastic and well qualified teaching faculty members with an abundant teaching experience.

The department has spacious and well equipped laboratories to cater the academic requirements of students as per the university curriculum. The department is emphasizing more on mini projects by students to impart more practical knowledge than they get out of their course of study. Periodically, workshops, seminars & technical symposia are organized in emerging trends of mechanical engineering to update student knowledge at par with today's industrial requirements. The department is organizing special training programs in mechanical engineering software like CATIA, ANSYS, and Pro-E etc. which helps to enhance and explore student skills in CAD/CAM/CAE discipline which is very essential in the present scenario of industries.

## Webinars Conducted

**Technical Talk on “ Refrigeration Cycle”** was conducted by **ISHRAE Student Chapter**

## Funded Projects

### KSCST

**Title of the project:** Development of Emission Control and Performance Improvement in 4 strokes SI Engine using vaporized Petrol as Fuel

**Amount :** Rs.7000/-

**Guide :** Prof.Arjun S

**Team Members:**

1. Mr Mukesh N
2. Mr Sharad S
3. Mr Nithesh Singh
4. Mr Manoj Kumar V A

## Publications by faculty

**National/International Journals : 06**



**Department has signed MOU with MEDINI to provide the expertise Training and support to students on Design technology.**





**Industrial Visit to HMT**



**Industrial Visit to Werner's Finley Pvt Ltd**



**Industrial Visit to Suncasting**



## Workshops Conducted

1. Three Days Training in “ Geometric Dimensioning and Tolerance (GDT) by CMS
2. Three Days Hands on training on “ AUTOCAD” by MEDINI



## POGIL Activities



## 5<sup>th</sup> Sem Toppers List

1

Mr. Mahendra Verma  
1VA18ME008



2

Mr. Polmin Jose  
1VA19ME009



3

Mr. Sai Charan  
1VA19ME012



4

Mr. K Goutham Raju  
1VA19ME005



5

Mr. K P Lalith Ranjan  
1VA19ME006



6

Mr. V Vignesh  
1VA19ME019



7

Mr. Chethan V K  
1VA19ME003



## 3<sup>rd</sup> Sem Topper List

1

Mr. Amith Yashas  
1VA20ME001



2

Mr. Yellapagiri Prudhvi  
VA20ME009



## 7<sup>th</sup> Sem Toppers List

1

Mr. Vijay Kumar S  
1VA18ME018



2

Mr. Shreyas H L  
1VA18ME026



3

Ms. Akash  
1VA18ME002



4

Mr. Sharad S  
1VA18ME024



5

Mr. Keshav Abhijith E  
1VA18ME013



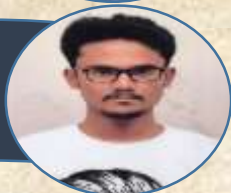
6

Mr. Rohith S V  
1VA18ME032



7

Mr. Deepak D  
1VA18ME008



8

Mr. Mukesh N  
1VA18ME018



9

Mr. Gagan raj  
1VA18ME011



10

Mr. Ajith Neelmani  
1VA18ME001



# Students Achievements



**Mr. Shreyas H L** of 8<sup>th</sup> Sem Mechanical bearing USN 1VA18ME026 participated in the **State Republic day Parade** camp organized by Youth Empowerment and sports, State NSS Cell, Bengaluru



**Mr. Shreyas H L** of 8<sup>th</sup> Sem Mechanical bearing USN 1VA18ME026 participated in **Photo Session** with his Excellency **Shri Thawar Chand Gehlot**, Hon'ble Governor of Karnataka



## Internship Details



Sl.No	USN	Name	Company Name and Address
1	1VA18ME001	AJIT NEELMANI	Lab 2 Market Kenchenahalli , Yelahanka, Bangalore
2	1VA18ME002	AKASH	Federal-Mogul Goetze India Limited Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
3	1VA18ME003	AKSHAY RAJU B	Federal-Mogul Goetze India Limited Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
4	1VA18ME004	AKSHAY S	Federal-Mogul Goetze India Limited Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
5	1VA18ME007	CHANDRA BHANU GAUTAM	Opal Engineering and Technology 296 Shri Shambhavi Building Gruhalaxmi Layout Nelagadarannahalli Post, Nagasandra, Bengaluru, Karnataka 560073
6	1VA18ME008	DEEPAK D	Federal-Mogul Goetze India Limited Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
7	1VA18ME009	DHARSHANGOWDA H	Federal-Mogul Goetze India Limited Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
8	1VA18ME010	DHARSHAVARDHANAREDDY N R	Federal-Mogul Goetze India Limited Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064

Sl.No	USN	Name	Company Name and Address
9	1VA18ME011	GAGANRAJ G	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
10	1VA18ME013	KESHAV ABHIJITH E	<b>Rail Wheel Factory</b> Yelahanka Bangalore - Karnataka 560064
11	1VA18ME014	LIKHITH J	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
12	1VA18ME015	MANOJKUMAR V A	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
13	1VA18ME016	MEKALA SAI SOMESWAR GOWD	<b>Opal Engineering and Technology</b> 296 Shri Shambhavi Building Gruhalaxmi Layout Nelagadaranahalli Post, Nagasandra, Bengaluru, Karnataka 560073
14	1VA18ME017	MOHAMMED SULAIMAN AAZIM	<b>L&amp;T Constructions</b> Bangalore International Airport Limited Terminal 2
15	1VA18ME018	N MUKESH	<b>Opal Engineering and Technology</b> 296 Shri Shambhavi Building Gruhalaxmi Layout Nelagadaranahalli Post, Nagasandra, Bengaluru, Karnataka 560073
16	1VA18ME019	NITESH SINGH	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
17	1VA18ME021	RAKESH ANGADI	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
18	1VA18ME022	ROHITH S V	<b>Government Tool Room &amp; Training Centre</b> Rajajinagar Industrial Estate, Bangalore – 560 010



Sl.No	USN	Name	Company Name and Address
19	1VA18ME023	SHAMEETH S	<b>Government Tool Room &amp; Training Centre</b> Rajajinagar Industrial Estate, Bangalore – 560 010
20	1VA18ME024	SHARAD S	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
21	1VA18ME025	SHASHWATH R SHETTY	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
22	1VA18ME026	SHREYAS H L	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
23	1VA18ME027	SUDARSHAN M	<b>Opal Engineering and Technology</b> 296 Shri Shambhavi Building Gruhalaxmi Layout Nelagadarahanahalli Post, Nagasandra, Bengaluru, Karnataka 560073
24	1VA18ME028	VIJAY KUMAR S	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064
25	1VA19ME401	DILEEP S	<b>Federal-Mogul Goetze India Limited</b> Doddaballapura Main Rd, East Colony, Yelahanka, Bengaluru Karnataka -560064





# Articles

# FARMERS SUICIDE IN INDIA

India is an agriculture based nation. The situation of the farmers in this country is more worrying than any other. Nearly over the past two decades, the sad trend of farmers committing suicide in our country is steadily on the increase.

For the first time this extremely challenging issue came under sharp focus when some of the farmers engaged in cotton cultivation in the Vidarbha region of Maharashtra suddenly committed suicide. This trend which was started initially by the farmers of Maharashtra gradually spread throughout the country. Today the situation has become even worse and in almost every State the Government is finding it tough to deal with the rising statistics of farmer's suicide.



## LIBERALIZATION AND GLOBALIZATION

It is due to the liberalization and globalization that the import of food grains at lower prices has already begun and on the other side farmers in our country are forced to burn their ready crops right in the fields. The reason why they are doing so is that they are not able to get good price for their crops and sometimes the overall price which they get after selling their harvest falls far short. Of the total sum invested by them in farming, Poverty and the amount of loans taken by them for harvesting with the rising interest, on their loans amount continuously push them and their entire family to commit suicide

## DIAGNOSIS IS IMPORTANT

Although the Government has been instrumental in ruining many farmers that the welfare schemes announced recently, no considerable impact is visible. Thus it is for the Government to diagnose the cause of this issue. It is urgent appropriate steps without losing time. It should introduce a new simplified welfare scheme which may help the farmers in getting good base price for their crops, besides interest free loan for farming among others.



To conclude, for an agricultural country like India, farmer's suicide is an extremely worrying situation and it certainly is a national problem which demands immediate solution. The Government should implement more effective welfare schemes for the poor and landless farmers, some of which may be offered immediately and without wasting time any further. Only then can the farmers lead a happy life.

**Mr. Goutham raju , Mr. Saicharan , Mr. Vignesh V**

**5th Sem Mechanical**

# **CRYPTOCURRENCY**

Cryptocurrency is becoming better-known and more popular throughout the entire world. It's time to learn how cryptocurrency will make the world a better place. Basically, cryptocurrency is electronic money stored in e-wallets or computer files.

Bitcoin is one of the most well-known cryptocurrencies out there. Additionally, there are thousands of different cryptocurrencies available. Not all cryptocurrencies serve the same purpose. While some are for general use, others solve specific problems and/or serve specific industries.

## **Reduce the risk of fraud.**

As it is not associated with your bank account or cash funds and is transferred electronically and securely with the blockchain recording all transactions, cryptocurrency will play a big part in reducing fraud which will also offer peace of mind

## **Increase crowdfunding**

Cryptocurrency will make the world a better place as it continues to positively impact crowdfunding. Initial coin offerings (ICOs) are centered around cryptocurrency which is used as the source of capital for a startup company's venture

## **Change the money transfer pro**

The transfer of cryptocurrency doesn't require all of the same checks and balances processes that banks do before funds can be deposited. Whether a national or international transfer, cryptocurrency transfers are instant, don't require any fees, and can be tracked and securely stored in the blockchain

## **Make e-commerce stron**

Everyone makes most of their purchases online nowadays Not only does the use of cryptocurrency reduce the risk of fraud for shoppers, but it does the same for vendors and sellers. Cryptocurrency transactions are permanent. In addition to the mitigation of risk, using cryptocurrency creates more opportunities for world-wide business

## **Make foreign money transfers and transactions safer**

Cryptocurrency can help make in-country transactions safer. When travelling to other countries carrying cash and money cards can be downright dangerous. Not only does the use of cryptocurrency reduce the danger of carrying cash, it also eliminates any exchange fees or transaction fees

## **Offer a stable alternative to unstable currencies**

The inflation and instability that some countries' standard currencies have experienced is shocking. While not all countries have currencies that are subject to outrageous rates of inflation, others could seriously benefit from switching to use cryptocurrency



**Mr. Goutham raju**

**Mr. Saicharan ,**

**Mr. Vignesh V**

**5<sup>th</sup> Sem Mechanical**



# **Paintings Sketches & Photography**





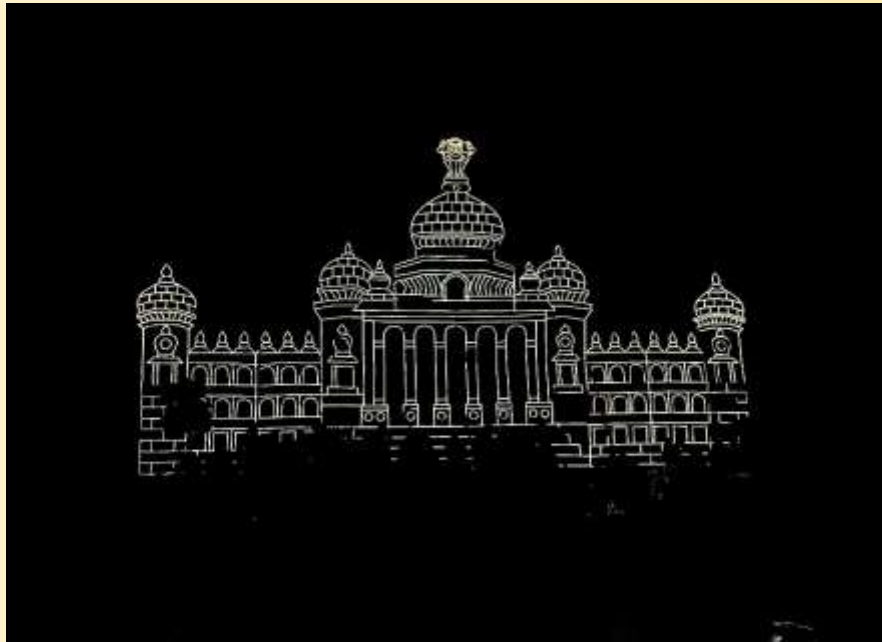
**Mr. Dileep S**  
**7<sup>th</sup> Sem Mechanical**



**Mr. Gaganraj**  
**7<sup>th</sup> Sem Mechanical**



**Mr. Shreyas H L**  
**7<sup>th</sup> Sem Mechanical**



**Mr. Pavan Joshi**  
**5<sup>th</sup> Sem Mechanical**





**Mr. Siddarth J**  
**5<sup>th</sup> Sem Mechanical**



**Mr. Mukesh N 7<sup>th</sup> Sem Mechanical**



**Mr. Amith Yashas  
3<sup>rd</sup> Sem Mechanical**

## PROGRAM OUTCOMES (POs)

- 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 team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary 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 multidisciplinary environments.
- PO12: 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.



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