

### **Department of Mechanical Engineering**

### Sai Vidya Institute of Technology

Rajanukunte, Bengaluru-560064



(Academic Year 2019-20)

## Vision

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

## Mission

M1: To impart quality technical education in Mechanical Engineering domain through excellent teaching-learning environment

M2: Instill ethical values among students to create technologically superior global man power through industry participation.

#### **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.

### **Program Specific Outcomes (PSOs)**

**PSO1:** Characterize the performance of a Mechanical component or a system using computational tools

**PSO2:** Design Mechanical systems including drives, energy conversion systems, RAC and fluid power systems as per specifications

**PSO3:** Select, plan and implement the process for manufacturing of Mechanical elements and for assembly of Mechanical subsystems

#### **Program Educational Objectives (PEOs)**

**PEO1:** Our Graduates will be competent with strong fundamentals and sound knowledge in the field of Mechanical Engineering.

**PEO2:** 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.

# **Director's Message**



I am pleased to note that Department of Mechanical Engineering, SVIT is bringing out Department Newsletter for 2019-20. 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.

- Prof. M R Holla Director, SVIT

# Principal's Message



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. H S Ramesh Babu Principal, SVIT

# **HOD's Message**



I am delighted to release annual newsletter of Mechanical Engineering Department "FORCE" for the year 2019-20 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 is 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 .Seetha Girish A V HOD MECH, SVIT

#### **Editorial Board**

Chief Editor: Dr. A V Seetha Girish

Editorial Board Member: Mr. Vijaya B

Student Members: Dheeraj K (7th Semester)

Sneha G (5th Semester)

## **Faculty**

Dr. A V Seetha Girish

HOD, Mech

Mr Vijaya B

Associate Professor

Dr Raghavendra S

Associate Professor

Mr Arjun S

**Assistant Professor** 

Mr Santosh G S

Assistant Professor

Mr Ravichandra Koti

**Assistant Professor** 

Mr Arun R

Assistant Professor

Mr Raghavendra M J

Assistant Professor

Mr RavikuamrT

**Assistant Professor** 

Mr Satish Chandra G

**Assistant Professor** 

Mr. Tejas M S

**Assistant Professor** 

## Advisory Board Members

Dr. H S Ramesh Babu

Principal, SVIT

Mr Sridhar Ramakrishna

Head & General Manager – Tenneco power rain

Mr. Govindray Bhat

Head -Quality AJAX Engineering Pvt

Ltd

Dr G S Venkatesh

Prof & PG Coordinator VTU Centre for Post-Graduation, Muddenahalli

Dr Shivarudraiah G

Prof & Head, University Visvesvaraya College of Engg (UVCE)

Mr. Harish B

Manager, BEML

Mr. Alur Raghavendra

Promoter, Shree Krishna CNC Enterprises

Mr. Sourabh Dongre

Alumnae (2012-2016Batch)

Mr Bharath S

Alumnae (2013-2017 Batch)

#### Details of interaction of our students & faculty with the industries are mentioned below

AY 2019-20							
Sl.No.	Name of the event	Title	Date	No. of days	Name of professional body sponsored	Speaker/ Resource person	No. of Participan ts
1	Industrial visit to KMF Mega Dairy		16/11/2019	01		Mr. Srinivas	31
2	Industrial visit to Sun castings		03/10/2019	1		Mr.Manjunath Babu	22
3	Industrial Visit Varahi Hydro electric plant		29/08/2019	1		Assistant Engineer KPCL	50

### Webinars Conducted in AY 2019-20

Sl.No.	Webinar on	Resource person	Photos
1	Next Generation Refrigerants 13.06.2020 9.00 am to 10.00am	Achyuth R Kulkarni Sales Leader, Large Deals— Climate Solutions, India	SAI VIDYA INSTITUTE OF TECHNOLOGY, BANGALE Department of Mechanical Engineering  WEBINAR  "NEXT GENERATION REPRIGERANTS"  Organised by  In ossociation with  STUDENTS  STUDENTS  Laies Lundering  AChyur  Saies Lundering  JUN US NOW!  Zoom I'd: 87279338824
2	Lasers in Manufacturing  20th June2020 11.00am - 12.45pm	Dr Ravi kant Dept of mechanical Engineering IIT Ropar	DEPARTMENT MECHANICAL ENGINEERIN MECHANICAL

3	2D materials for energy storage applications 22 <sup>nd</sup> June2020 11.00am-12.30pm	Dr.Ashwin.C.Gowda, Assistant Professor, Department Studies of Mechanical Engineering Visvesvaraya Technological University, Chikkaballapura, Muddenahalli	SALVIDYA INSTITUTE OF TECHNOLOGY RAIANUKUNTE, BENGALURU-560064 Organised by Department of Mechanical Engineering WEBINAR ON "2D MATERIALS FOR ENERGY STORAGE APPLICATIONS" MONDAY, June 22   # 11.00AM to 12.30AM Link: https://meet.google.com/pek-tnyo-wfk
4	Polymer composites- Tribology Testing methods 23.07.2020 11am -12.30pm	Dr Suresha B Dept of mechanical Engineering NIE, Mysore	Department of Mechanical Engineering Sai Vidya Institute of Technology Reapondurite, Bergaluru Organising Webinar on Polymers Composites Tribology-Testing Methods  Date and Time 23 July 2020 Indiam to 12 dopm  Registration link https://forms.gie /yav4b6iod5j2zbw69  Google meet https://meet.google.com/rdr-fuzt-hqr Registration is free and E-Certificates will be provides for all the Participants
5	MIM,Quality and Problem solving Tools and Automation 26.07.2020 11.00am -12.00noon	Mr. Sathya Pravardhana G P Industrialist	Name Note See  Note See  Name State See  Name State See  Name State See  Name See  Nam
6	Key market drivers & features in power train  28.07.2020 2.30pm-4.00pm	Mr Sridhar Ramakrishna Head & General Manager India Technical Center, TENNECO Powertrain, Federal Mogul, Bengaluru	PISTON MATERIAL – ALUMINIUM ALLOYS  PISTON MATERIAL – ALUMINIUM ALLOYS  TENERAL  ASSOCIATION TO THE PISTON MATERIAL — ALUMINIUM ALLOYS  TENERAL  ASSOCIATION TO THE PISTON

## **Toppers Meet**

Department of Mechanical Engineering organizes 'Toppers Meet' every semester to motivate the students for achieving outstanding performance in the university examination.





#### **Student's Achievements**





Sports meet at SIR MVIT

Sports Event at Vidyarayapura





Tech Vidya 2019

### **Academic Achievements**

SL.NO	Events	No. of Students Participated/Enrolled
1.	Coursera( faculty)	107
2.	Course era ( Students)	526
3.	Webinars	6

#### **MOU'S With Industries**

Sl.No	Name of the company	Date of Signing	Activity Conducted
1.	ISHRAE Student Chapter	30/11/2015	Technical talk by A. Madhukar
2.	Cyber Metric Services	27/02/2018	Internship at SVIT
3	NTTF	05/04/2018	Training Programme for diploma students
4	KGTTI	25/04/2019	Training Programme for students and Staff
5	C-Balance		

