SAI VIDYA INSTITUTE OF TECHNOLOGY
Rajanukunte, Bengaluru-560064
Department of Mechanical Engineering

FORCE

(Department Newsletter)
2016-17

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

MISSON

- 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.

PROGRAMME EDUCATIONAL OBJECTIVES

- PEO1: Our graduates will be competent enough 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 role

Director's Message

I am delighted to note that Department of Mechanical Engineering, SVIT is bringing out first edition of department newsletter. Department newsletter definitely provides a platform to showcase the activities and achievements of the students and staff. This newsletter has recorded achievements and activities of Department of Mechanical Engineering such as: conferences attended by staff members and students, Student achievements innovative projects carried out by students with the guidance of staff, among others.

- ***Prof. M R Holla***

Principal's Message

I am extremely happy to know that the Department of Mechanical Engineering is coming out with first newsletter for the academic year 2016-17and this is an ongoing 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. My Congratulations to Mechanical team.

- ***Dr. H S Ramesh Babu***

From the Editor's Desk:

It gives me immense pleasure to release the first annual news letter "FORCE" for the year 2016-17. 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. K N Narasimha Murthy
Prof and HOD

Program Outcomes

PO	Title	Statement
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 science 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

Students Achievements

- **Project Exhibition**

Date of Exhibition 18/05/2017
Venue Measurements lab & Workshop

Awarded Projects

Prize	Name of students	USN	Guide	Title of Project
I	Udaya M B	1VA13ME412	Prof. Arjun S	Development of basalt fiber reinforced polymer composites with fibers for auto safety applications
	Sharath P Y	1VA13ME410		
	Manasa K	1VA13ME031		
	Visvesvarayya M	1VA12ME057		
II	Chethan G S	1VA13ME013	Prof. Vijay B	Mobile controlled Motor operated Screw jack
	Bharath S	1VA13ME009		
	Madhusudhan V	1VA13ME030		
	Vinod D R	1VA13ME417		
III	Purushottam G V	1VA13ME036	Prof. Deepak C	Advanced Sequential dual evaporator domestic refrigerator
	Siddanagouda S Patil	1VA13ME048		
	Dishanth S V	1VA13ME016		
	Kiran Kulal	1VA13ME024		

Events Conducted

❖ IMTEX-2017

Department of Mechanical Engineering, Sai Vidya Institute of Technology, Bengaluru participated in Academia Pavilion IMTEX -2017 held at Bangalore International Exhibition centre (BIEC) during 26thJanuary-2017 to 1st February 2017.Dr.K.NarasimhaMurthy, Professor, Department of Mechanical Engineering SVIT presented his research work on "Machinability Investigations on Austempered ductile Iron" at Academia Project Exhibition IMTEX-2017.

Dr.KNM Presentation at IMTEX2017

SVIT Stall at Academia Pavilion

❖ Jnana Vijnana Tantragnanamela (JVTM-2017)

Department of Mechanical Engineering, Sai Vidya Institute of Technology, Bengaluru actively participated in JnanaVijnanaTantragnanaMela (JVTM)-2017) organized by Adichunchanagiri Mutt during 20th and 21st February 2017. Department showcased three project works viz.. Soda Blasting Machine, Automated Cattle feeding system and Material transportation using Four bar Mechanism for Small Scale Industries. Prof. Arjun, Department of Mechanical Engineering coordinated the event.

Mechanical Engineering Students at SVIT Stall, JVTM-2017

❖ AERO INDIA-2017

Department of Mechanical Engineering organized visit to AERO INDIA-2017 on 17th February 2017. The visit was helpful in igniting the young minds with latest technological trends existing in Aerospace Industry.

Mechanical Engineering team visit to AERO INDIA-2017

❖ Visit To IMTMA

Department of Mechanical Engineering organized visit to Indian Machine Tool Manufacturers Association (IMTMA) Bengaluru for 6th semester Mechanical Engineering students on 22nd March 2017.Dr.K.Narasimha Murthy and Prof. Arun accompanied students to IMTMA. The visit was helpful to the students to understand the latest machine tools used in manufacturing industries of the country.

Mechanical Engineering students, SVIT at IMTMA

❖ ASHRAE & ISHRAE Student Chapter Activity

ASHRAE & ISHRAE Student chapter, Department of Mechanical Engineering ,SVIT organized a distinguished lecture program on " Energy Efficient Solutions for Commercial Kitchen Ventilation" on 13th March 2017.Dr.Andrey Livchack from USA The speaker presented his lecture on various modern design methodologies available in the commercial kitchen ventilation design and created interest among the students with his thoughts.

Dr.AndreyLivchack, USA during his presentation at SVIT

❖ Career Guidance Program By IMTMA

Career Guidance Program was arranged for students of Mechanical Engineering; on 16th March 2017.The speaker was Mr.H.V.Rajashekara, Senior Director, Design Institute, IMTMA, Bengaluru. He addressed the students with the present scenario in Indian Machine tool Industries and his talk enlightened the students with latest technological advancements happening in the machine tool industries.

Mr.H.V.Rajashekara, IMTMA addressing the students in Career Guidance Program

❖ Guest Lecture

Guest lecture was organized on Latest Trends in Automotive Engineering and Applications" on 17th March 2017. "The speaker Mr.Sridhara Ramakrishna, General Manager, Federal Mogul Corporation, Bengaluru. In his lecture Mr.Sridhara Ramakrishna addressed students on current trend and challenges related to automotive, aircraft, and industrial applications. He also showcased few case studies of projects and challenges in introducing the Euro-VI Emission Norms targeted for 2020 as envisioned by the Honourable Prime Minister under Swatch Bharath Abhiyaan in the automotive industry.

Mr.**Sridhara Ramakrishna, Federal Mogul Corporation in his presentation at SVIT**

Industrial Visits

1. L&T's Construction & Construction Equipment

Department of Mechanical Engineering organized visit to L&T's Construction & Construction Equipment, Doddaballapur whose core business is to assembly of Mining Equipment, and Tipper Trucks as well as Product Support & Spare Parts for all the equipment. Around 44 Students of Final year mechanical Engineering with two faculties (Prof Vijaya B & Prof Siddhartha Naik) visited the plant on **Saturday 22nd April 2017**. Students visited the following shops. Hydraulic Works, Cylinder barrel shop, painting shop, Assembly shop, Robotic welding shop, sheet bending shop, Heavy earthmoving equipment assembly shop

2. Kaiga Nuclear Power plant visit

Fourth semester students of Mechanical Engg along with three staff members visited Kaiga Nuclear Power Plant located near Karwar, Karnataka on 29th April 2017.The students could get exposure to the basic requirements and specifications required for a nuclear power station. Technical details of the nuclear power generation were understood by students during this visit.

Mechanical Engineering students, SVIT at KAIGA power station