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

FORCE

(Department Newsletter)
2018-19

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.
- Instil 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 roles.

Director's Message

I am delighted to note that Department of Mechanical Engineering, SVIT is bringing out third 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 third newsletter for the academic year 2018-19 and 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:

*I am delighted to release annual newsletter of Mechanical Engineering Department "**FORCE**" for the year 2018-19. 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.*

The Department not only believes and supports curricular Activities, the students of our department have participated in various cultural and sport Events in the recently conducted SANCHALANA-2019 and have bagged prizes adding making the Department Proud.

Dr.A.V.Seetha Girisha
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 modelling 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

FACULTY ACHIEVEMENTS

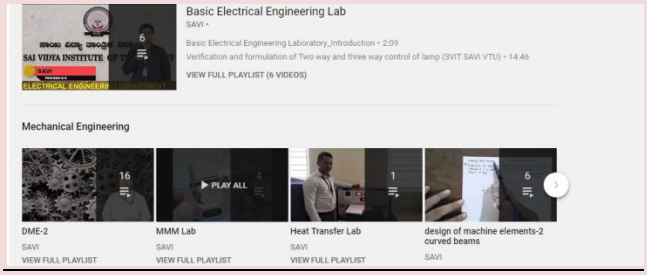
FACULTY DEVELOPMENT PROGRAMES

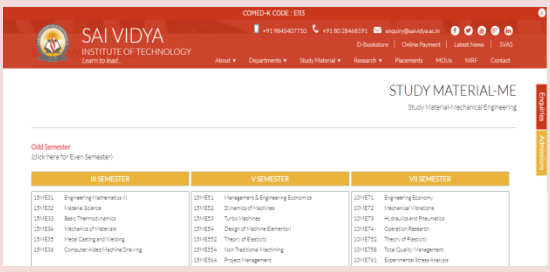
Sl.No	Faculty Name	FDP Name	Date & Place
1	Prof. Arun R	Practicing OBE & ICT tools in engineering education.	24th to 28th July-2018, BMSIT, Bengaluru-64
2	Prof.Vijaya B	New model curriculum for first year BE course as per OBE format including CO and Blooms taxonomy.	9th May 2018, BNMIT,Bangalore

LIST OF PAPERS PUBLISHED BY FACULTY

Sl. No.	Name of the Faculty	Title of the Paper	Name of the Journal, Volume, Year of Publication
1	Prof.Arjun S	Design and Analysis of Loading Mechanism for a Bogie return Mechanism	International Journal of Engineering Research and General Science, volume 7, Issue 5, Pg 80, ISSN:2091-2730
2	Prof.Santhosh	Generation of electricity by converting mechanical energy, using piezoelectric sensor and TEG	International Journal of Management, Technology And Engineering, ISSN:2249-7455, Page no.19, Mar 2019
3	Prof.Ravikumar T	Review on Indirect Evaporating Cooling system,usingMaisotsenko Cycle	International Journal of Management, Technology And Engineering, ISSN :2249-7455 Page no.36, Mar 2019
4	Prof.Praveen Kumar K	Electric Power Generation Using Rack And Pinion Mechanism	Journal of Emerging Technologies and Innovative Research,ISSN: 2349-5162, May 2019

SVIT Blog and SAVI YouTube Videos





Department of Mechanical Engineering initiated new methods of innovative teaching learning methods to facilitate slow learners as well bright students to understand the concepts of various subjects at all times for better learning through SAVI YouTube channel and Subject Blog

OUR PRIDE STAFF

Sl.No.	Name	Designation	Qualification
1	Dr. A V Seetha Girisha	HOD & Professor	M Tech, PhD
2	Dr. Raghavendra S	Associate Professor	M Tech , PhD
3	Prof. Vijaya B	Associate Professor	ME (PhD)
4	Prof. Santosh S Gaidhankar	Assistant Professor	M.Tech,
5	Prof. Arjun S	Assistant Professor	M.Tech(PhD)
6	Prof. Praveen Kumar K	Assistant Professor	M.Tech,
7	Prof. Ravichandra V Koti	Assistant Professor	M.Tech, (PhD)
8	Prof. Ravikumar T	Assistant Professor	M.Tech, (PhD)
9	Prof. Arun R	Assistant Professor	M.Tech,
10	Prof. Raghavendra M J	Assistant Professor	M.Tech, (PhD)
11	Prof. Satish Chandra G	Assistant Professor	M.Tech,
12	Prof. Thejas M S	Assistant Professor	M.Tech,

Graduation Day 2019

MOUs/ PROFESSIONAL SOCIETIES

- **SVIT –SAE INDIA Collegiate Club**

  This club started in September 2018 under the Guidance of Dr.A.V.Seetha Girish, Head & Chief Faculty Advisor for Department of Mechanical Engineering. The objective of the Collegiate Club is to provide its members opportunities to gain broader insight into the engineering profession by sponsoring meeting that will bring practicing engineers to the campus, arranging field trips to research and engineering establishment, sponsoring student projects of engineering interest, and participating in SAE India section activities.

- Department of Mechanical Engg signed MOU with **Karnataka German Technical Training Institute (KGTTI)** on **16.04.2019**, an institute under Society for Karnataka German Multi Skill Development Centre (KGMSDC), established by Government of Karnataka, under funding from Government of India & Government of Karnataka, and having Technical Collaboration with German International Services (GIZ-IS), having its office at Bannerugatta road, Bengaluru 560029, The overall objective of the KGTTI is to provide skill development, advanced technology hands-on-Training and to enhance employment opportunities. To achieve this objective, the SVIT will mobilize its students/ participants to undergo skill-development training to make them industry ready/Fit

STUDENTS ACHIEVEMENTS

- ## KSCST Funded Project

Design and Development of Bus Stand Shelter Using Coir Fiber Composites.

VarunChauraria, BiswajeetMazumdar, Sangamesh S B and Harsha K the students of 2019 batch developed a Bus Stand Shelter using Coir Fiber Composites under the guidance Dr.Raghavendra S. The objective of this project is to utilize waste materials derived from natural resources are used to prepare composites material for structural applications for low load and low pressure applications.

ತೆಂಗು ನಾರಿನ ಬಸ್ ತಂಗುದಾಣ

ವಿಜಯ ಕರ್ನಾಟಕ

■ ವಿಕ ಸುದ್ದಿಲೋಕ ಬೆಂಗಳೂರು

ತೆಂಗಿನ ನಾರನ್ನು ಹಗ್ಗ ಹೊಸೆಯಲು, ಹಾಸಿಗೆ-ದಿಂಬು ತೊಳೆಯಲು, ಕರಕುಶಲ ವಸ್ತುಗಳನ್ನು ನಿರ್ಮಿಸಲು ಇತ್ಯಾದಿ ಉದ್ದೇಶಕ್ಕೆ ಬಳಸುವುದನ್ನು ನೀವು ನೋಡಿರಬಹುದು. ಆದರೆ, ಇದೇ ತೆಂಗಿನ ನಾರಿನ ಶೀಟ್ ಮೇಲೆ ವಾಟರ್ ಪ್ರೂಫ್ ಹೊದಿಕೆ ಹೊದಿಸಿ ಚಾವಣಿಯಾಗಿ ಬಳಕೆ ಮಾಡಿದಲ್ಲಿ ಕಡಿಮೆ ಖರ್ಚಿನಲ್ಲಿ ತಂಗುದಾಣ ನಿರ್ಮಿಸಬಹುದು ಎಂಬುದನ್ನು ರಾಜಾನುಕುಂಟೆಯ ಸಾಯಿ ವಿದ್ಯಾ ಇನ್‌ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಟೆಕ್ನಾಲಜಿಯ ಮೆಕ್ಯಾನಿಕಲ್ ವಿಭಾಗದ ವಿದ್ಯಾರ್ಥಿಗಳು ನಿರೂಪಿಸಿದ್ದಾರೆ.

8ನೇ ಸೆಮಿಸ್ಟರ್‌ನ ವಿದ್ಯಾರ್ಥಿಗಳಾದ ಮನೋಜ್, ಪವನ್, ಸುರೇಶ್, ಹರ್ಷ ಅವರು ಮೆಕ್ಯಾನಿಕಲ್ ವಿಭಾಗದ ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕ ಡಾ. ಸುಬ್ರಹ್ಮಣ್ಯ ರಾಘವೇಂದ್ರ ಅವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿತೆಂಗಿನ ನಾರಿನ ಚಾವಣಿಯ ಪರಿಸರ ಸ್ನೇಹಿ ಬಸ್ ನಿಲ್ದಾಣವನ್ನುನಿರ್ಮಿಸಿದ್ದಾರೆ. ವಿಭಾಗದ ಎಚ್‌ಒಡಿ ಡಾ.ಎ.ವಿ.ಸೀತಾ ಗಿರೀಶ್, ಪ್ರಾಂಶುಪಾಲ ಎಚ್.ಎಸ್. ರಮೇಶ್‌ಬಾಬು ಹಾಗೂ ಡಿ.ಎಸ್.ಶ್ರೀಕಾಂತ್ ಅವರ ಸಹಕಾರದೊಂದಿಗೆ ಪ್ರಾಜೆಕ್ಟ್ ಅನ್ನು ಪೂರ್ಣಗೊಳಿಸಿದ್ದಾರೆ.

'' ಕೆಎಸ್‌ಸಿಎಸ್‌ಟಿಯಿಂದ 7,500 ರೂ. ಪ್ರೋತ್ಸಾಹಧನ ಕೂಡ ಸಿಕ್ಕಿದೆ ,'' ಎಂದು ಎಂದು ತಂಡದ ಪ್ರಮುಖ ಮನೋಜ್ ಹೇಳಿದರು.

''ಸಾಮಾನ್ಯವಾಗಿ ನಗರದಲ್ಲಿ ನಿರ್ಮಿಸುವ ಬಸ್ ತಂಗುದಾಣಕ್ಕೆ 30 ಸಾವಿರ ರೂ.ದಿಂದ 50 ಸಾವಿರ ರೂ. ವೆಚ್ಚವಾಗುತ್ತದೆ. ಆದರೆ ನಾವು 12 ಸಾವಿರ ರೂ. ವೆಚ್ಚದಲ್ಲಿ ನಿರ್ಮಿಸಿದ್ದೇವೆ. ನಾವು ನಿರ್ಮಿಸಿರುವ ನಿಲ್ದಾಣವನ್ನು ನಮ್ಮ ಕಾಲೇಜಿನ ಮುಂಭಾಗದಲ್ಲೇ ಲೋಕಾರ್ಪಣೆಗೊಳಿಸಿದ್ದೇವೆ. ಆರ್ಥಿಕ ನೆರವು ನೀಡಿದರೆ ನಗರದಲ್ಲಿ ಅಗತ್ಯವಿರುವೆಡೆ ಕಡಿಮೆ ವೆಚ್ಚದಲ್ಲಿ ನಿಲ್ದಾಣ ನಿರ್ಮಿಸಿಕೊಡಲು ನಾವು ತಯಾರಿದ್ದೇವೆ,'' ಎಂದು ಮನೋಜ್ ಹೇಳಿದರು.

ಸಾಯಿ ವಿದ್ಯಾ ಇನ್‌ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಟೆಕ್ನಾಲಜಿ ಮುಂದೆ ನಿರ್ಮಿಸಿರುವ ತಂಗುದಾಣ.

ತಂಗುದಾಣದ ವಿಶೇಷತೆ

ತಂಗುದಾಣ ಹತ್ತು ಅಡಿ ಉದ್ದ ಮತ್ತು 12 ಅಡಿ ಅಗಲವನ್ನು ಹೊಂದಿದೆ. ತೆಂಗುನಾರಿನ ಮಂಡಳಿಯಿಂದ 4 ಇಂಚು 6 ಅಡಿ ಆಳತೆಯ ತೆಂಗಿನ ನಾರಿನ ಫ್ಲೇಟ್‌ಗಳನ್ನು ಖರೀದಿಸಿ ವಾಟರ್ ಪ್ರೂಫ್ ಹೊದಿಕೆ ಹೊದಿಸಿ ಚಾವಣಿ ನಿರ್ಮಿಸಲಾಗಿದೆ. ಚಾವಣಿಯನ್ನು ನಿಲ್ಲಿಸಲು ಕಬ್ಬಿಣದ ಸರಳುಗಳು, ನೆಟ್-ಬೋಲ್ಟ್‌ಗಳನ್ನು ಬಳಸಲಾಗಿದೆ.

- ## Engineer's Day Celebration at L&TConstruction Equipment Ltd, Doddaballapur on 15th Sep 2018

As a mark of Sir M Visvesvaraya Birthday, the students of 3rdSemester Mechanical Engineering were taken to L&TConstruction Equipment Ltd, Doddaballapur on 15th Sep 2018.

- **Best Projects**

Date of Exhibition	08th May, 2019
Venue	Measurements lab & Workshop
No. of teams Participated	14
Jury Member	Dr Yuvraj Naik, Associate Professor, Presidency University.

Awarded Projects

Prize	Title	Team Associates	Guide
1	Performance combustion and Exhaust Emission characteristics of LHR Diesel engine fuelled with biodiesel.	Madhukar V (1VA13ME029) Rajath D (1VA13ME038) Vibha Dinesh (1VA14ME050)	Prof. Raghavendra M J
2	Development of the low cost solid waste collection equipment for public road	Phaneesh P G (1VA15ME029) Indiresh (1VA15ME017) Naveen Kumar P (1VA15ME025) Hemanth Kumar (1VA15ME016)	Dr. Raghavendra S
3	Design and Analysis of Loading mechanism for a Bogie return system	NareshBandodkar (1VA14ME029) NiteshKashyap (1VA14ME032)	Prof. Arjun S J

Glimpses of Project Exhibition

Publication by Students

Sl. No	USN	Name of the Student	Title of the paper	Name of the Journal/ Conference	Publication details(Volume ,Issue, page number, year)
1	1VA15ME001	AKHIL K MURTHY	Generation of electricity by converting mechanical energy, using Piezoelectric sensor and TEG	National Conference on Recent trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 19
	1VA15ME042	SARVOTHSM GOWDA			
	1VA15ME031	PRAMOD M R			
	1VA16ME400	ANADA M			
2	1VA15ME062	AKASH L	Conversion of sound waves into electrical energy	National Conference on Recent trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 28
	1VA16ME401	BALAJI S			
	1VA16ME411	SUNDEEP L			
	1VA15ME009	CHIRANTHAN			
3	1VA15ME029	PHANEESH G	Design of Low Cost Solid waste Collection Equipment for Public road cleaning	Topical Transcends in Mechanical Engineering	7th national Conference proceedings TTMT-19,Pg114, SJBIT
	1VA15ME025	NAVEEN KUMARP			
	1VA15ME017	INDIRESH			
	1VA15ME016	HEMANTH			
4	1VA15ME034	PRAVEEN KUMAR	Review on Indirect Evaporating Cooling System, Using Maisotsenko Cycle	National Conference on Recent trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 36
	1VA15ME027	NITISH KUMAR			
	1VA15ME046	SOURABH HIREMATH			
	1VA15ME049	SUSANDEEP GANTA			
5	1VA15ME022	MANJUNATH G	Fabrication and Development of a Fertilizer Spreader	Topical Transcends in Mechanical Engineering	7th national Conference proceedings TTMT-19, Pg117,SJBIT
	1VA15ME039	RAKSHITH V			
	1VA15ME060	YASHAS D R			
6	1VA15ME003	ALOK KUMAR PRAJAPATHI	Experimental study on Modified diesel engine filled with biodiesel	Topical Transcends in Mechanical Engineering	7th national Conference proceedings TTMT-19,Pg139, SJBIT
	1VA15ME058	VISHAL SINGH			
	1VA15ME018	JAMSHED KHAN			
	1VA15ME033	PREETHI G V			
7	1VA15ME003	ALOK KUMAR PRAJAPATHI	Experimental study on Modified diesel engine filled with biodiesel	National Conference on Recent trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 30
	1VA15ME058	VISHAL SINGH			
	1VA15ME018	JAMSHED KHAN			
	1VA15ME033	PREETHI G V			

8	1VA15ME048	SRI HARSHA N	Evaluation of Mechanical properties in short coir fiber Reinforced epoxy Composites	National Conference on Recent Trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 25
	1VA16ME407	MANOJ M			
	1VA16ME408	PAVAN G V			
	1VA16ME412	SURESH S M			
9	1VA15ME044	SHASHINDRA KUMAR	Design of Hydraulically operated Engine cooling System	Topical Transcends in Mechanical Engineering	7th national Conference proceedings TTMT-19,Pg81 SJBIT
	1VA15ME059	VISHAL V			
	1VA16ME410	SRIKANTH M S			
10	1VA15ME044	SHASHINDRA KUMAR	Design of Hydraulically operated Engine cooling System	National Conference on Recent Trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 31
	1VA15ME059	VISHAL V			
	1VA16ME410	SRIKANTH M S			
11	1VA15ME004	ARAVIND D T	Development of Natural fiber composites using Banana fiber as reinforcement in polymer matrix	National Conference on Recent Trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 44
	1VA15ME010	DANIEL			
	1VA15ME054	VINITH GERALD U			
12	1VA14ME050	VIBHA DINESH	Performance, Combustion & Exhaust emmision characteristics of a LHR Diesel enginefilled with biodiesel extracted from scum oil	MECH EXPO 2K19, SVCE in Association with Indian Society for NDT	Exhibition at SVCE in association with Indian Society for NDT
	1VA13ME038	RAJATH D			
	1VA13ME029	MADHUKAR V			
13	1VA14ME050	VIBHA DINESH	Performance, Combustion & Exhaust emmision characteristics of a LHR Diesel enginefilled with biodiesel extracted from scum oil	National Conference on Recent Trends & innovations in Mechanical Engg& Technology RTIMET-2019 At Cambridge Institute of Technology	IJMTE conference proceedings, Volume 1, Pg 114
	1VA13ME038	RAJATH D			
	1VA13ME029	MADHUKAR V			
14	1VA14ME029	NARESH D BANDODKAR	Design and Analysis of Loading Mechanism for a Bogie return Mechanism	MECH EXPO 2K19, SVCE in Association with Indian Society for NDT	Exhibition at SVCE in association with Indian Society for NDT
	1VA14ME032	NITHESH R KASHYAP			
15	1VA14ME029	NARESH D BANDODKAR	Design and Analysis of Loading Mechanism for a Bogie return Mechanism	National Conference on Recent Trends & innovations in Mechanical Engg& Technology RTIMET-2019	volume 7, Issue 5, Pg 80 2019
	1VA14ME032	NITHESH R KASHYAP			
16	1VA16ME413	VINAY GUJJAR L V	Design and Fabrication of Shaft drive system in Bicycle	National Conference on Recent Trends & innovations in Mechanical Engg& Technology RTIMET-2019	IJMTE conference proceedings, Volume 1, Pg 24
	1VA14ME033	NITHIN R			
	1VA14ME022	MALLIKARJUN			
	1VA16ME409	RASHITH M			

17	1VA15ME034	PRAVEEN KUMAR	Review on Indirect Evaporating Cooling System, Using Maisotsenko Cycle	Topical Transcends in Mechanical Engineering	7th national Conference proceedings TTMT-19, pg 1,SJBIT
	1VA15ME027	NITISH KUMAR			
	1VA15ME046	SOURABH HIREMATH			
	1VA15ME049	SUSANDEEP GANTA			

INDUSTRIAL VISITS

Sl. No.	Name of the event	Date	No. of days
1	L&T Construction Equipment Ltd	15/09/2018	01
2	Varahi Hydro electric plant	26/10/18 28/10/18	03
3	IMTEX Exhibition	24/01/19 & 30/01/19	06
4	HAL	01/03/19	01
5	Thomos Tyre Retrading	08/02/19	01
6	Nash Industries	19/04/18	01

IMTEX 2019

Engineer's Day Celebration at L&TConstruction

Tyre Retrading Plant

WORKSHOP

IC Engine overhauling Hands on training conducted by Dept. Of Mechanical Engineering for 2nd, 3rd and 4th year students of Mechanical Dept. This workshop helped students to get first-hand experience of dismantling IC Engine into components and understand working principle and engineering involved for IC Engine design.

BEST OUTGOING STUDENT 2018-19

Alok Kumar Prajajpathi, IVA15ME003 of 8thsemester student has been awarded best outgoing student of Department. Prof Vijaya.B Associate Professor is mentor