SAI VIDYA INSTITUTE OF TECHNOLOGY
Rajanukunte, Bengaluru-560064

Department of Mechanical Engineering

FORCE

(Department Newsletter)

2017-18

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 second 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 second newsletter for the academic year 2017-18and 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 second annual newsletter of Mechanical Engineering Department "**FORCE**" for the year 2017-18. 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-2018 and have bagged prizes adding making the Department Proud.

Dr.A.V.Seetha Girisha
Prof and HOD

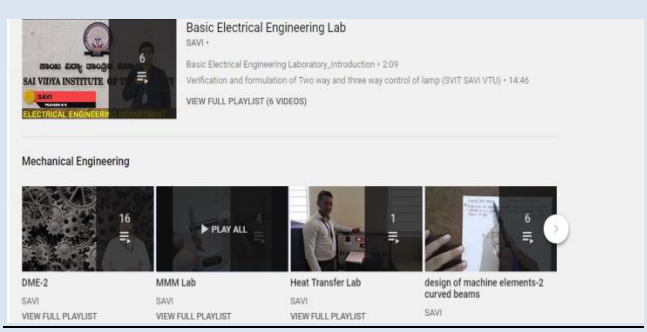
Program Outcomes

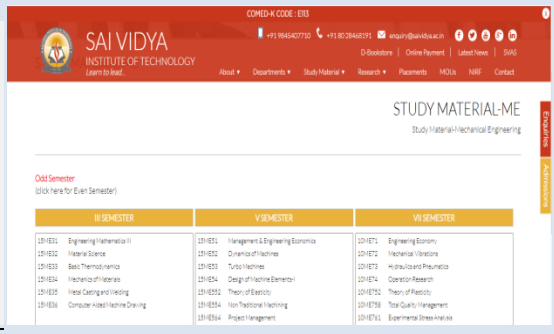
PO	Title	Statement
1	Engineering Knowledge	Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems
2	Problem Analysis	Identify, formulate, review research literature and analyze complex engineering problems 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

OUR PRIDE STAFF

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

SVIT Blog and SAVI You Tube 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

FACULTY ACHIEVEMENTS

❖ FACULTY DEVELOPMENT PROGRAMES

Sl.No	Faculty Name	FDP Name	Date & Place
1	Prof.Vijaya B	TEQUIP-IIISponsored FDP on PEDAGOGY Training in technical education	16th to 20th Jan 2018 VTU, Muddenhalli
2	Prof. Arun R	MATLAB for RESEARCH	2nd to 5th Aug-2017, SVIT, Bengaluru-64
3	Prof. Arun R	Computational Fluid Dynamics	22nd to 27th Jan-2018, SJBIT, Bengaluru-60

❖ 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	Dr.Raghavendra.S	Development Of Portable Vehicle Water Washing Unit Using Modified Two Wheeler Bike	International Conference on Trends In Industrial & Value Engineering, Business And Social Innovation. Bangalore
2	Dr.Raghavendra.S	Evaluation of short banana fiber reinforced epoxy composites	International Conf on Mechanical Automotive and Aerospace Engineering
3	Dr.Raghavendra.S	Evaluation of short banana fiber reinforced epoxy composites	International Conf on Mechanical Automotive and Aerospace Engineering
4	Prof.Vijaya B	Tensile and hardness testing of Aluminium alloy composites reinforced with alumina nano particles.	National conference at Sri Krishna Institute of Technology ,Bangalore
5	Prof.Vijaya B	Wear testing of Aluminium alloy composites reinforced with Alumina nano composites by Taguchi method	National conference at Sri Krishna Institute of Technology ,Bangalore

Memorandum of Understandings (MOUs)

- **Cyber Metric Services**

  Department of Mechanical Engineering has signed an Memorandum of understanding with Cyber Metric Services India Pvt. Ltd on 27 February 2018.This program is to provide software training (CREO and Ansys) for students of Mechanical engineering.

STUDENTS ACHIEVEMENTS

❖ Funded Projects

- **ISHARE** sanction of student Project: Year 2Ol7-2O18.A Project Proposal entitled **"An experimental study on hydrate based vapor compression refrigeration system" Sanctioned amount for student Project: Rs.58000/**
- **KSCST** sanction of student Project - 40th series: Year 2Ol6-2O17, Project Proposal Reference No. : 4OS-BE- 0662. A Project Proposal entitled **"An experimental study on desalination of saline water by using solar chimney" Sanctioned amount for student Project: Rs.8000/-**
- **KSCST** sanction of student Project - 41th series: Year 2Ol7-2O18, Project Proposal Reference No. : 41S-BE- 0035. A Project Proposal entitled **"Design and Fabrication of power generation by using kinetic energy recovery system in bicycle" Sanctioned amount for student Project: Rs.6000/**

❖ Best Projects

Smart Helmet Using GSM and GPS Technology

Trilok Narayan Sah, AmitKumar, Mithun Kumar T K and Niranjan S , the students of 2018 batch developed a smart helmet under the guidance of Prof.Santhosh. A smart helmet is a special idea which makes motorcycle driving safer than before. This is implemented using GSM and GPS technology. The project was well appreciated and won first prize in National conference organised by KIT, Bangalore and also published in well known kananda newspaper.

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ಹೆಲ್ಮೆಟ್ ಧರಿಸಿದ್ರೇನೇ ಗಾಡಿ ಸ್ಟಾರ್ಟ್ ಆಗೋದು!

■ ವಿಕ ಸುದ್ದಿಲೋಕ ಬೆಂಗಳೂರು

ರಾಜಾನುಕುಂಟೆಯ ಸಾಯಿ ವಿದ್ಯಾ ಇನ್‌ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಟೆಕ್ನಾಲಜಿ ಕಾಲೇಜಿನ ಮೆಕ್ಯಾನಿಕಲ್ ಎಂಜಿನಿಯರಿಂಗ್ ಕೋರ್ಸ್‌ನ ಅಂತಿಮ ವರ್ಷದ ಪದವಿ ವಿದ್ಯಾರ್ಥಿಗಳ ತಂಡವು ಸವಾರ, ವಾಹನದ ಸುರಕ್ಷತೆ ಗಮನದಲ್ಲಿಟ್ಟು ಕೊಂಡು ಹಲವು ವಿಶೇಷತೆ ಒಳಗೊಂಡಿರುವ 'ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್' ಆವಿಷ್ಕರಿಸಿದೆ.

ಕಾಲೇಜಿನ ಪ್ರಾಧ್ಯಾಪಕರಾದ ಎಸ್.ಜಿ. ಸಂತೋಷ್, ರಾಘವೇಂದ್ರ ಮತ್ತು ಡಿ.ಎಸ್. ಶ್ರೀಕಾಂತ್ ಅವರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಗಳಾದ ಟಿ.ಕೆ. ಮಿಥುನ್‌ಕುಮಾರ್, ತ್ರಿಲೋಕ್ ನಾರಾಯಣ್ ಸಾ, ನಿರಂಜನ್ ಎಸ್ ಹಾಗೂ ಅಮಿತ್‌ಕುಮಾರ್ ತಂಡ ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್ ಅನ್ನು ಆವಿಷ್ಕರಿಸಿದ್ದಾರೆ.

ಹೆಲ್ಮೆಟ್‌ನಲ್ಲಿ ರೇಡಿಯೋ ಫ್ರೀಕ್ವೆನ್ಸಿ (ಆರ್‌ಎಫ್) ಟ್ರಾನ್ಸ್‌ಮೀಟರ್ ಅಳವಡಿಸಿದ್ದು, ವಾಹನದಲ್ಲಿ ರಿಸೀವರ್ ಅಳವಡಿಸಲಾಗಿದೆ. ಇವೆರಡರ ನೆರವಿನಿಂದ ಹೆಲ್ಮೆಟ್ ಧರಿಸಿದರೆ ಮಾತ್ರ ವಾಹನ ಸ್ಟಾರ್ಟ್ ಆಗುವಂತೆ ತಂತ್ರಜ್ಞಾನ ರೂಪಿಸಲಾಗಿದೆ. ಕುಡಿದು ವಾಹನ ಹತ್ತಿದರೆ ಮುಂದೆ ಹೋಗುವುದಿಲ್ಲ. ಸವಾರನಿಗೆ ಅಪಘಾತ ವಾದರೆ ತಕ್ಷಣ ಸಂದೇಶ ರವಾನೆಯಾಗುತ್ತದೆ. ಈ ಸೌಲಭ್ಯಕ್ಕಾಗಿ ವಾಹನದಲ್ಲಿ ಜಿಪಿಎಸ್, ಜಿಪಿಎಂ ಅನ್ನು ಅಳವಡಿಸಲಾಗಿದೆ. ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್‌ನ ಮತ್ತೊಂದು ವಿಶೇಷವೆಂದರೆ ಬೇಗ ಹಾಕಿ ನಿಲ್ಲಿಸಿದ್ದ ಗಾಡಿಯನ್ನು ಕಳ್ಳರು ಹೊತ್ತೊಯ್ದರೆ ಸೆನ್ಸರ್ ಮೂಲಕ ವಾಹನದ ಮಾಲೀಕರ ಮೊಬೈಲ್‌ಗೆ ಸಂದೇಶ ರವಾನೆಯಾಗುವಂತೆಯೂ ವ್ಯವಸ್ಥೆ ಇದೆ.

ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್ ಕಾರ್ಯ ನಿರ್ವಹಣೆಗೆ ಅನುಕೂಲವಾಗುವಂತೆ ದ್ವಿಚಕ್ರ ವಾಹನಕ್ಕೆ ಜಿಪಿಎಸ್, ಜಿಪಿಎಂ ಎಂ ತಂತ್ರಜ್ಞಾನ ಹರಿಕರ ಅಳವಡಿಕೆ.

ಸವಾರ, ವಾಹನದ ಸುರಕ್ಷತೆಗೆ 'ಸ್ಮಾರ್ಟ್' ಉಪಾಯ

ಎಸ್‌ವಿಐಟಿ ಕಾಲೇಜು ವಿದ್ಯಾರ್ಥಿಗಳ ಆವಿಷ್ಕಾರ

ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್ ಆವಿಷ್ಕಾರಕ್ಕೆ ಸುಮಾರು 3-4 ತಿಂಗಳ ಕಾಲ ಸಮಯ ತೆಗೆದುಕೊಂಡೆವು. ಸುಮಾರು 20 ಸಾವಿರ ಹಣ ಖರ್ಚು ಮಾಡಿದ್ದೇವೆ.
•ಟಿ.ಕೆ. ಮಿಥುನ್‌ಕುಮಾರ್,
ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್ ಪ್ರಾಜೆಕ್ಟ್ ವಿದ್ಯಾರ್ಥಿ ತಂಡದ ಮುಖಂಡ

ಸ್ಮಾರ್ಟ್ ಹೆಲ್ಮೆಟ್ ಆವಿಷ್ಕರಿಸಿರುವ ರಾಜಾನುಕುಂಟೆಯ ಸಾಯಿ ವಿದ್ಯಾ ಇನ್‌ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಟೆಕ್ನಾಲಜಿ ಕಾಲೇಜಿನ ಮೆಕ್ಯಾನಿಕಲ್ ಎಂಜಿನಿಯರಿಂಗ್ ಪದವಿ ವಿದ್ಯಾರ್ಥಿಗಳ ತಂಡ.

❖ BEST OUTGOING STUDENT 2017-18

Ms. Apoorva, IVA14ME003 of Eight semester student has been awarded best outgoing student of Department. **Prof. Arjun S** Assistant Professor is mentor

- **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	1VA14ME012	DHANUSH.U	Wear testing of Al Alloy composites reinforced with Alumina Nano-Composites by Taguchi Method	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg 246,2018
	1VA14ME051	VINAY Y S			
	1VA14ME035	PRAVEEN			
	1VA14ME020	KISHAN KUMAR			
2	1VA15ME411	NIVED G A	Development of portable vehicle water washing unit using modified Two wheeler bike	International conference on Trends in Industrial and value engineering business and social innovations	Edition 6, Issue 1,Pg 38,2018
	1VA15ME414	RUKESH V			
	1VA15ME409	NAVEENA JOGI B			
	1VA15ME406	KIRAN J			
3	1VA14ME006	APOORVA K	Design and Simulation of Integrated main landing gear attachments of an Aircraft	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7, 2018
	1VA14ME042	SHETTY SHISHEER			
	1VA14ME007	ASHISH R			
4	1VA14ME003	ANIRUDH SRIDHAR	Design of a Composite control surface of an Aircraft	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7, 2018
	1VA14ME008	BHARATH G			
	1VA14ME026	MOHAMMED ABRAAR			
5	1VA15ME401	ASHISH V S	Design & Thermal Analysis of Power supply Modules	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg 802018
	1VA14ME023	MANISH N			
6	1VA14ME004	ANKITH C L	Frictionless antilock breaking system	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,2018
	1VA14ME019	KARTHIK.K.K			
	1VA14ME041	SACHIN.M			
	1VA15ME404	E S MANJUNATH			
7	1VA15ME402	CHANDAN M V	Fabrication and Development of 2S/4S Cultivation vehicle for agricultural Application	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg 167 2018
	1VA15ME412	RAHUL D			
	1VA15ME403	DINESH KUMAR K S			
	1VA15ME408	KUMAR R			
8	1VA14ME014	GIRISH K V	Preperation and charecterisation of polylactic acid and ABS using different 3D printing	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg 235,2018
	1VA14ME030	NAVEEN T R			
	1VA14ME040	RAVI KUMAR L			
	1VA15ME410	NAVEEN KUMAR V	Two Wheel vehicle self balancing using	National Conference on Recent trends in	volume 7, Special issue 7,pg 267,2018

9	1VA14ME010	CHANDAN G.S	Gyroscope	Mechanical Engineering and Applied Sciences	
	1VA15ME400	ABHISKEKA			
10	1VA14ME027	MURALIDHAR LOKANDEY	Experimental Study of Turbulent flow in Vapour Compression Refrigeration System	Journal of Emerging Technologies and Innovative Research	volume 5, 5 issue 5,May 2018
	1VA14ME011	C.OMPRAKASH REDDY			
	1VA14ME009	BIPIN MURARI			
11	1VA13ME014	CHIDHAMBAR.K .N	An Experimental Investigation of Vibration Characteristics on structures using Tuned liquid bowl damper	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,2018
	1VA13ME037	R DEEPAK			
	1VA13ME004	AKSHAY KUMAR S			
	1VA13ME055	CHANDRA SHEKAR.M.T			
12	1VA14ME002	ANIRUDH B A	Design and Testing of Magneto-Rheological Damper for Vehicle Suspension	Journal of Emerging Technologies and Innovative Research	volume 5, 5 issue 5, May 2018
	1VA14ME028	NAGESH N			
	1VA14ME039	RAHUL S			
	1VA14ME013	GHANASHYAM			
13	1VA14ME002	ANIRUDH B A	Design and Testing of Magneto-Rheological Damper for Vehicle Suspension	National Conference on Recent innovations in Science Engineering and Technology	volume 7, Special issue 7,pg 69 2018
	1VA14ME028	NAGESH N			
	1VA14ME039	RAHUL S			
	1VA14ME013	GHANASHYAM U S			
14	1VA14ME001	AKSHAY M	Roof Crush Analysis of Passenger car for vehicle safety and crashworthiness	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg 19, 2018
	1VA14ME034	PRAJWAL S			
	1VA14ME046	SYED HUZAIFA			
	1VA14ME048	ULLAS G			
15	1VA13ME008	BHARATH R	Tensile and hardness testing of Aluminium alloy composites Reinforced with alumina Nano-particles	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg222, 2018
	1VA13ME012	CHETHAN.Y			
	1VA14ME401	CHETAN REDDY K R			
	1VA13ME032	MURALI KRISHNA R C			
16	1VA14ME405	MITHUN KUMAR	Smart helmet using GPS and GSM technology	National Conference on Recent trends in Mechanical Engineering and Applied Sciences	volume 7, Special issue 7,pg 275, 2018
	1VA14ME406	NIRANJAN S			
	1VA13ME005	AMITH KUMAR			
	1VA14ME047	TRILOK NARAYAN SAHA			