



DEPARTMENT OF MECHANICAL ENGINEERING
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE : WARANGAL
(An Autonomous Institute under Kakatiya University, Warangal)
Opp. Yerragattu Hillock, Warangal, Telangana-506015

M A G A Z I N E

JULY 2021

THE PRO-DIGY

Faculty Editorial Team :

Dr. K. Sridhar, Prof. & Head MED

Dr. K. Eswaraiah, Prof. MED

Sri. G. Vinod Kumar, Asst. Prof MED

Sri. S. Anil Kumar, Asst. Prof MED

Student Editorial Team :

Mr. K. Akhil Raja (IV/IV MECH I)

Mr. D. Sathwik Reddy (II/IV MECH II)



Estd: 1980

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15
(An Autonomous Institute under Kakatiya University, Warangal)
Accredited by NAAC 'A' Grade (CGPA:3.21)

Capt. V. Lakshmikantha Rao
Secretary & Correspondent



MESSAGE

I am very glad that the department of Mechanical Engineering of this Institute has unveiled "THEPRODIGY 2021", an annual departmental magazine displaying significance of the department and its involvement in improving the value of this institute. It gives me a pleasure reading this magazine consisting of a lot of valuable content and I whole heartedly appreciate the department and its editorial team for building this icon of fame.

I am fully convinced that this institution is self-sufficient in the objectives and values of true education and this work is indubitably a concrete form of this Learning Center's great Endeavour. I am sure that this book of great value inspires everyone to achieve more and set new bench marks to all the forthcoming generations.

I congratulate the students and Staff and wish a grand success.

Capt. V. LAKSHMIKANTHA RAO
Secretary & Correspondent, KITSW
MP (Rajyasabha)



Estd: 1980

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Sri P. Narayana Reddy
Treasurer



MESSAGE

From the inception of the institute in 1980, the Mechanical Engineering Department has been involved in imparting quality education and research through various programmes.

I believe that this work of bringing out a departmental magazine "THEPRODIGY" will be of great help to students as they can understand its vision, its mission and the varied ideas of the student community in the best way by witnessing all the happenings of the department in this year and realizing their true essence.

I deem it as a privilege to compliment the faculty and staff for the efforts and commitment put forth for making this a success. I wish the department all the success and I hope everyone enjoys learning from this magazine.

P. Narayana Reddy
Treasurer, KITSW



Estd: 1980

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Dr. K. Ashoka Reddy
Principal



MESSAGE

The Mechanical Engineering department of KITSW has distinguished itself through its achievements and contributions in academics, research and social responsibility.

I feel that bringing out a magazine at departmental level is a breakthrough idea which connects every single person in the department and the content in it surely motivates everyone to put their best effort to improve the performance of the department.

I feel students are the primary benefiteres of this work through which they can communicate, learn about the department and finally add another useful skill to themselves by contributing to this work.

As I look forward, I can visualize that this effort by the team will grow the standards of the department and improve its efficiency, quality, and strength.

Dr. K. Ashoka Reddy
Principal, KITSW



Estd: 1980

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Prof. K. Sridhar
Head, MED



MESSAGE

As the Head of Mechanical Engineering department of this institute, I'm always immensely delighted for its distinction and excellence and feel that great responsibility of improving the standards and efficiency of the department is on my shoulders.

Our annual departmental magazine is one among those extraordinary works which glorifies the department as the title "THEPRODIGY" explains the motto very intensely.

I'm extremely happy that this tradition serves as a good purpose to unite the entire department and displays the strength in our students' thought process.

I wholeheartedly congratulate our team and appreciate for their efforts and I wish all the best.

Prof. K. Sridhar
Head, MED, KITSW

Preface

It is always an honour to be a part of success of our department and it is with that great spirit the present "THEPRODIGY" is built. People get truly inspired when they are informed or described about the success of the family, institute or the system with which they are strongly associated and it is the same foundational belief which motivated the publication of this annual departmental magazine.

As envisioned by the pioneers and veterans of this institute this is a pure attempt to enable our students to come up with their novel instincts and express them with their communicative ability on this big stage of extreme significance.

As "THEPRODIGY" is in its very fourth edition, it has a much bigger role of glorifying the might of Mechanical engineering department and its values and standing as an icon of the department's pride and its well established identity.

To realize this biggest aspiration, the editorial team of THEPRODIGY has committed to have honor of describing every noteworthy aspect of this department in words of gratitude and to eternalize them to remain as source of inspiration for all the forthcoming generations.

Our sincere thanks to the management and the department for their support and for believing in the abilities of students which we consider as a precious boon to us and it really made us capable of unveiling this pride.

We hope every student in his reader role keeps inspiring himself and enjoys learning.

LEARNING NEVER ENDS

-CHIEF EDITORS

Department of Mechanical Engineering



Profile of the Department

The Department of Mechanical Engineering came into its existence right from the inception of the KITSW in the year 1980 and has been serving as catering department to other disciplines. The Department is one of the largest in terms of faculty, students, and activities, continues to lead and expand its activities in various directions. The department currently runs undergraduate programme, one post graduate program in M. Tech Design Engineering and offering a Ph. D programme, 26 Research scholars have registered so far and out of which four candidates are awarded with Ph. D Degree and remaining are pursuing their Ph. D work in the areas of Thermal, Production, Materials and Design. The B. Tech (Mechanical Engineering) course was accredited five times by NBA.

Department has a total of 42 qualified, experienced and committed senior faculty and 19 of them are with Ph. D. degrees. Rest of faculty members possess M. Tech. Degrees and are pursuing their Ph.D. programmes and 10 skilled technical staff to associate with different laboratories. The faculty has been engaged in research in all the classical areas of Mechanical Engineering and upcoming areas like alternative fuels, solar energy, unconventional machining, composite materials, Nano Fluids and powder metallurgy. The department has got grants under MODROBS from AICTE, Minor Research Projects from UGC. The department is very well equipped with resources both in terms of conventional equipments and latest software's. Department has more than 180 computing systems and workstation loaded with wide range of engineering software products covering all areas of mechanical engineering like ANSYS,CFD,CREO,AUTOCAD, and EDGE CAM. The department has a central workshop facility well equipped with the basic infrastructure to impart technical training to the students of all disciplines. The academic activities are supported by 13 laboratories and one Center of Excellence, IAAHP.

The Department has strong industry-institute linkage and is extending services for industrial consultancies. The students are consistently securing good ranks/scores in all competitive examinations like UPSC/GATE /GRE/CAT/GMAT/TOEFL/IELTS examinations. Alumni of the Department are spreaded over across the Globe.

Milestones of the Department:

Year of Establishment: 1980

- 1980 : Department started with Two B.Tech programmes in
 1. Production Engineering
 2. Industrial Engineering.
- 1983 : The two B.Tech Programmers are merged to Mechanical Engineering.
- 1985 : Started B.Tech programme in Mechanical Engineering for Diploma Students.(Lateral entry Scheme)
- 1992 : Curriculum Revised
- 1997 : Conducted National Workshop on CADD
- 2000 : Conducted AICTE sponsored Short term Training Programme on TEUCEMS
- 2000 : Curriculum Revised
- 2001 : Accredited by National Board of Accreditation (3 Years)
- 2002 : B.Tech Programme in Production Engineering is introduced
- 2003 : National Conference on Trends in Mechanical Engineering TIME-03
- 2003 : National Level Students Technical Symposium MECHOVISION-03
- 2004 : Second National Conference on Trends in Mechanical Engineering TIME-04
- 2004 : M.Tech Programme in Design Engineering is introduced
- 2004 : Recognized as Research center by Kakatiya University
- 2004 : Curriculum Revised
- 2005 : Third National Level Students Technical Symposium MECHOVISION-05
- 2006 : Re-Accredited by National Board of Accreditation (3Years).
- 2008 : B.Tech programme in Production Engineering is Surrendered and opted Additional intake of 60 in Mechanical Engineering
- 2008 : National Level Students Technical Symposium MECHOVISION-08
- 2009 : Inauguration of SAE India Collegiate Club
- 2009 : All India 2nd Rank in GATE-09
- 2010 : National Level Students Technical Symposium MECHOVISION-10
- 2010 : National Conference on Trends In Mechanical Engineering TIME'10
- 2011 : National Level Students Technical Symposium YANTRANG'11
- 2012 : National Level Students Technical Symposium MERIDIAN'12
- 2012 : Re-Accredited by National Board of Accreditation (3Years).
- 2012 : Organized National Level Students Technical Symposium MERIDIAN'12
- 2012 : Organized SAE Student Convention Tier-I Event on 8th & 10th Sep.2012.
- 2013 : MOU Signed with Fiber Glass Industries Association of Andhra Pradesh (FIAAP) Hyderabad on 25th February.
- 2013 : M/s Hyundai Motors recognized the Department as a Potential center for taking up research i activities and provided a Santro Xing engine.
- 2013 : Organized National Level Students Technical Symposium SUMSHODHINI-13.
- 2014 : MOU Signed with Vasantha Tool Crafts Pvt. Ltd., Hyderabad on 12th July.
- 2014 : Organized National Level Students Technical Symposium YANTRAANG-14
- 2016 : Indian Institute of Plant Engineers (IPE) recognized department of Mechanical Engineering as the nodal point for local student chapter at KITS, Warangal on January, 2016.
- 2016 : Re-Accredited by National Board of Accreditation (3Years).
Organized National Level Students Technical Symposium SUMSHODHINI-16
- 2016 : Organized National level Faculty Development Programme Research Methodology & Computational Techniques (RMCT-16).
- 2017 : Organized National Level Students Technical Symposium SUMSHODHINI-17
- 2017 : Organized National Level Students Technical Symposium SUMSHODHINI-17 ver.2.
- 2017 : Organized National Level Students Workshop on Composite Materials
- 2017 : Organized National Level Students Workshop on 3D Printing

- 2018 : Organized National level Faculty Development Programme on Engineering Drawing
- : Organized National Level Students Technical Symposium (Smart Mechanical Systems) SUMSHODHINI-18
- : Organized One Week STTP on Hands on Programme on Ansys Software (HPAS-18)
- 2019 : Organized One Week Workshop on Research Methodology (RM-19).
- : Organized One Week Refresher course on Training in Mechanical Engineering Laboratories for Technical Staff.
- : Organized One day workshop on Refrigeration & Air-conditioning in - Industrial Applications
- : Organized Two days workshop on Finite Element Methods.
- : Re-Accredited by National Board of Accreditation (3Years).
- : Organized Two National Level Students Technical Symposium on Spacecraft Design SUMSHODHINI-19, 24-25 October, 2019.
- : Organized One Week ISTE & Adroitec sponsored Faculty Development Program (FDP) on Disruptive Technologies in Digital Manufacturing (DTM-19), 25- 29 November, 2019.
- 2020 : Organized One-Week Faculty Development Programme (Online) on Advanced Materials and Manufacturing, 29 June - 03 July, 2020.
- : Organized One Week Online Faculty Development Programme (Online) on Recent Developments in Mechanical Engineering - 2020 (RDME-2020) in Association with ISTE - KITSW, SAE-INDIA and Institution's Innovation Council (IIC), 7 - 11 July, 2020.
- : Organized one National Level Students Technical Symposium on Aeromodelling of Drones SUMSHODHINI-20, 11 December, 2020.

VISION OF THE INSTITUTE

- To make our students technologically superior and ethically strong by providing quality education with the help of our dedicated faculty and staff and thus improving the quality of human life.

MISSION OF THE INSTITUTE

- To provide latest technical knowledge, analytical and practical skills, managerial competence and interactive abilities to students, so that their employability is enhanced.
- To provide a strong human resource base for catering to the changing needs of the Industry and Commerce.
- To inculcate a sense of brotherhood and national integrity.

VISION OF THE MECHANICAL DEPARTMENT

- To be a centre of excellence in Mechanical Engineering, to provide the best teaching-learning and research environment, to produce high quality professionals and entrepreneurs to cater the needs of society.

MISSION OF THE MECHANICAL DEPARTMENT

- To impart quality education that builds strong ethical attitude, technical knowledge and professional skills by providing congenial teaching-learning environment.
- To nurture the reasoning, problem solving and research capabilities of learners by providing the state-of-the-art facilities, to meet the changing needs of society.
- To inculcate life-long learning and leadership traits for successful professional careers, by counseling and mentoring.

Program Educational Objectives (PEOs) of B. Tech in Mechanical Engineering Program

- PEO1:** To provide comprehensive knowledge in basic sciences, mechanical engineering and multi disciplinary areas.
- PEO2:** To apply modern tools and techniques to design, analyze, interpret and solve mechanical and allied engineering problems and communicate them effectively.
- PEO3:** To impart responsibility towards socio-technical, economical, environmental and energy related issues
- PEO4:** To inculcate professionalism, ethical attitude, team spirit and lifelong learning to achieve career goals.

Program Outcomes (POs) of B. Tech in Mechanical Engineering Program
Engineering Graduates will be able to:

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) of B. Tech in Mechanical Engineering Program

PSO1: To apply learned principles and knowledge in various applications of materials, design, thermal, production and industrial engineering.

PSO2: To model, analyze, design, develop and implement advanced mechanical systems or processes.

Program Educational Objectives (PEOs) of PG - M. Tech (Design Engineering) Program

The postgraduates of DESIGN ENGINEERING will be able to...

PEO1 (Research and Innovation): engage in research, innovation and in teaching in Higher education institutions

PEO2 (Technical expertise and Successful career): excel in profession in industry, and entrepreneurship with updated technologies in the domain of design engineering

PEO3 (Soft skills and Lifelong learning): exhibit professional ethics, effective communication and teamwork in solving engineering problems by adapting contemporary research towards sustainable development of society

Program Outcomes (POs) of PG - M. Tech (Design Engineering) Program

At the time of graduation, the postgraduates of Design Engineering will be able to ...

PO1: independently carry out research /investigation and development work to solve practical problems

PO2: write and present an effective technical report/document

PO3: demonstrate competence in the area of design engineering

Program Specific Outcomes (PSOs) of PG - M. Tech (Design Engineering) Program

The postgraduates of Design Engineering will be able to...

PSO1: apply knowledge of design engineering for development of effective and innovative solutions to engineering problems

PSO2: apply appropriate methodology, contemporary hardware and software tools to solve complex engineering problems in the domain of design engineering

FACULTY PROFILE

Photo	Name/Designation	Photo	Name
	Dr. K. Sridhar Professor & Head Dean Student Affairs Ph.D (Energy Systems)		Dr. K. Eswaraiiah Professor Ph.D (Production Engg.)
	Dr. K. Raja Narendra Reddy Professor & Controller of Examinations Ph. D (Natural Fiber Composites)		Dr. P. Srikanth Professor, Training & Placement Officer Ph. D (Production Engg.,)
	Dr. U. Shrinivas Balraj Professor Ph.D (Electrical Discharge Machining)		Dr. G. Ganesh Kumar Associate Professor Ph. D (Heat Transfer)
	Dr. P. Prabhakara Rao Associate Professor Ph.D (Foundry & Forge Tech.)		Dr. A. Deva Raju Associate Professor Ph.D (Production Engg.,)
	Sri P.S.S. Murthy Assistant Professor M. Tech (Ph.D) (Mechanical Vibrations)		Dr. J. Laxman Assistant Professor Ph.D (Electrical Discharge Machining)
	Sri S. Chandramouli Assistant Professor M. E. (Ph.D) (Electrical Discharge Machining)		Dr. G. Srinivasa Rao Assistant Professor Ph.D (Heat Transfer)
	Sri Ch. Karunakar Assistant Professor M. E. (Ph. D) (Production Engg.)		Sri G. Vinod Kumar Assistant Professor M. E. (Ph.D) (Solar Energy)
	Sri S. Ramesh Assistant Professor M. Tech. (Ph.D) (Heat Transfer)		Sri A. Hari Kumar Assistant Professor M. E. (Ph.D) (Design Engg.)
	Sri S. Anil Kumar Assistant Professor M. Tech. (Ph.D) (Solar Energy)		Sri K.Kishor Kumar Assistant Professor M. Tech. (Ph.D) (Composite Materials)
	Sri M. Anil Kumar Assistant Professor M. Tech (Design Engg.)		Dr. MD. Sameer Assistant Professor Ph.D (Mechanical Engg.)

	Dr. G. Sai Kumar Assistant Professor Ph.D (Material Science & Metallurgy)		Dr. G. Srinu Assistant Professor Ph.D (Production Engg.)
	Smt. P. Anitha Assistant Professor M. Tech. (Ph. D) (Metal Matrix Composites)		Sri S. Sripathy Assistant Professor M. Tech. (Ph. D) (Composite Materials)
	Sri B. Ravi Kumar Assistant Professor M. Tech. (Design Engg.)		Sri V. Srikanth Assistant Professor M. Tech. (Ph.D) (Composite Materials)
	Sri V. Prasanna Assistant Professor M. Tech. (Ph. D) (AMS)		Sri D. Sammaiah Assistant Professor M. Tech (AMS)
	Ms. P. Divya Assistant Professor M. Tech. (Design Engg.)		Ms. V. Laxmi Priyanka Assistant Professor M. Tech. (Machine Design)
	Sri V. Rakesh Assistant Professor M. Tech. (Ph. D) (Design Engineering)		Sri P. Anil Kumar Assistant Professor M. Tech. (Ph. D) (Engineering Design)
	Sri P. Sreedhar Assistant Professor M. Tech. (Ph. D) (Industrial Metallurgy)		Sri V. Rajesh Assistant Professor M. Tech (AMS)
	Ms. G. Sumithra Assistant Professor M. Tech. (Design Engg.)		Sri V. Pradeep, Assistant Professor M. Tech. (Design Engg.)
	Dr. E. Ramesh Assistant Professor Ph. D (Thermal Engineering)		Dr. Shankuntala Ojha Assistant Professor Ph. D (Composite Materials)
	Dr. T. Manoj Kumar Dundi Assistant Professor Ph. D (Thermal Engineering)		Dr. C. Naresh Assistant Professor Ph. D (Production Engineering)
	Dr. B. Srinivasa Reddy Assistant Professor Ph.D (Thermal Engineering)		Dr. M. Om Prakash Assistant Professor Ph.D (Composite Materials)


SUPPORTING STAFF





	Sri M. Madhukar Computer Programmer M.C.A		Sri A. Rathnakar Instructor I.T.I
	Sri D. Kishan Mechanic I.T.I		Sri M. Madhusudan Sr. Mechanic D.M.E
	Sri A. Pochalu Sr. Mechanic I.T.I		Sri K. Venkata Ramana Mechanic I.T.I
	Sri Md. Vilayath Ali Instructor D.M.E		Sri K. Ravi Kumar Mechanic D.M.E
	Sri K. Shankarachary Instructor I.T.I		Sri M. Sumath Computer Programmer B. Tech (CSE)
	Smt. A. Madhuri Junior Assistant M.B.A		


Our labs, a practical playfield of our concepts

Our department is superior to many premier institutes in this state in terms of its standard laboratory equipment which is the department's biggest potential. With top class equipments available, students in the department always spend their time in labs by involving themselves with one or the other practical work. Such an extraordinary laboratory facilities allow both faculty and students to carry out their research work with lot of ease regardless of its complexity in its pursuance.

It's always a proud feeling to witness all those facilities in our own department.

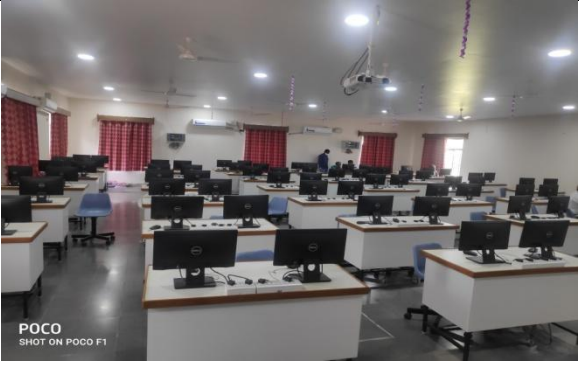


S. No.	Name of the Laboratory	Name of the important equipment	Labs at Glance
1	MCAD LAB	<ol style="list-style-type: none"> 1. P-4 Server 2. P-4 Workstations 3. 10 KVA Scan Power Ups 4. Networking Hubs 5. Softwares 	


2	CAM & SIMULATION	<ol style="list-style-type: none"> 1. STARTURN CNC Turning Centre 2. CNC Milling Machine 3. P-IV Computers 	
3	DYNAMICS OF MACHINERY	<ol style="list-style-type: none"> 1. Gyroscope 2. Whirling of shafts apparatus 3. Governor apparatus 4. Cam analysis machine 5. Static & dynamic balancing apparatus 6. Vibration lab 	
4	MATERIAL SCIENCE & METALLURGY	<ol style="list-style-type: none"> 1. Microscopes 2. Belt Grinder 3. Disc Polisher 4. Sample Mounting press 5. Muffle furnace 6. Specimen leveller 7. Specimen Drier 8. Rockwell hardness testing Equipment 9. Single pan balance 10. Electric tube furnace with controlled atmosphere facility 11. Bench Grinder 	
5	HEAT TRANSFER	<ol style="list-style-type: none"> 1. Thermal conductivity of insulating powder 2. Heat transfer in natural convection 3. Heat transfer from the Pin-Fin Apparatus 4. Heat transfer in forced convection 5. Heat transfer through composite walls 6. Critical heat flux apparatus 7. Emissivity measurement Apparatus 8. Thermal conductivity of metal rod 	

		<ol style="list-style-type: none"> 9. Parallel and counter flow heat exchanger 10. Thermal conductivity apparatus 11. Heat transfer through Vacuum 12. Heat transfer through Heat pipe. 	
6	FUELS & IC ENGINES	<ol style="list-style-type: none"> 1. Rams bottom Carbon residue test, 2. Bomb calorimeter, 3. Cleveland's Flash and Fire point apparatus, 4. Redwood viscometer, 5. Say bolt viscometer, 6. Junkers Gas Calorimeter, 7. Abel's Flash point apparatus 8. Single Cylinder Diesel Engine 5 H.P. with Rope Brake 9. Single Cylinder Diesel Engine 5 H.P. with Electrical Dynamometer for Valve Time Diagram 10. Twin Cylinder Diesel Engine 10 H.P. with Hydraulic Dynamometer 11. Single Cylinder Petrol Engine 3 H.P. without Dynamometer 12. Four Cylinder Petrol Engine 10 H.P. with Hydraulic Dynamometer (Ambassador) 13. Two Stage Reciprocating Air Compressor 	

7	MACHINE SHOP	<ol style="list-style-type: none"> 1. MMM Lathe Machines 2. Jayam skim lathe machines 3. All geared Lathe Machines 4. Shaper machine 5. Horizontal Milling machine 6. Bench Grinder 7. Radial Drilling Machine 8. Tool & Cutter Grinder 9. Slotter 10. Three Component Digital Lathe tool Dynamometer 	
9	MEASUREMENTS & METROLOGY	<ol style="list-style-type: none"> 1. Sine Bar, 2. Universal bevel protractor 3. Protractor, 4. Digital Vernier 5. Micrometer 6. Three wire set thread pitch micro meter 	
10	MECHATRONICS	<ol style="list-style-type: none"> 1. LSM Controller-capable of 6 Axes (Max) & PLC, 2. Programmable Logic controller with Ladder Diagram S/W, 3. 5KVA online UPS 4. P- Simulator 5. H-Simulator 6. P-IV Computers 	
11	ENERGY ENGINEERING	<ol style="list-style-type: none"> 1. Air-Conditioning tutor (Lab unit) 2. Window-Air conditioning testing 3. Electrolux vapor absorption Refrigeration test rig 4. Vapor compression refrigeration Test rig 5. Vortex tube refrigeration system 	

		<ol style="list-style-type: none"> 6. Solar water heating system. 7. Solar air heating system 8. Solar panel in series and parallel 	
12	WORKSHOP	<ol style="list-style-type: none"> 1. AC Welding Machine 2. portable grinding Machine 3. Power hacksaw machines shearing equipment 4. flywheel press 5. Vernier Height Gauge 6. anvils, 7. Surface Plate 8. Disc cutter 	
13	MANUFACTURING PROCESS	<ol style="list-style-type: none"> 1. Sand weighing scale 2. Clay washer model 3. Mould Hardness tester 4. Shatter index tester with brass sieves 5. Shatter index tester M.S. sieves 6. Sand mixer 7. Sand Rammer 8. Sand Permeability tester 9. Universal sand strength machine 10. Digital single Pan balance 11. AC,DC Welding Machines, 12. Bend test equipment 	
14	MECHANICAL RESEARCH	<ol style="list-style-type: none"> 1. Acer desktop Systems -30 2. Creo 1.0 3. Ansys 14.0 4. 10Kva online UPS 	

15	Auto CAD	<ol style="list-style-type: none"> 1. Dell T30 Server (Intel Xeon Processor 16GB Ram/2TB HDD) 2. 74 Dell Desktop Systems (Intel Core i5-8500/8GB Ram/1TB HDD) 3. 20 KVA Scan Power Ups 4. Mat Lab 	
16	COMPOSITE MATERIALS	<ol style="list-style-type: none"> 1. Universal testing machine(3TON load capacity, computerized operation) 2. Pin on disc machine (Standards as per ASTM G99 With Data acquisition of wear; laptop) Laptop: - Processor (CPU): Intel Core i3 Memory: 4GB RAM Storage: 500 GB internal storage drive 3. Izod/ Charpy impact tester (Load conditions 2.5Joule to 29 Joules, Digital output) HP 15q Core i5 8th Gen (8GB/1TBHDD/Windows 10 Home) 15q-ds 1001 TU Laptop (15.6-inch, Jet Black, 1.77kg with MS Office) 4. Motorized Notch Cutter - Digital 5. Vacuum bagging set up 6.Scrollsaw (composite cutter) 7. Mini Stirrer Computer systems 	 

		<p>HP all in one</p> <ul style="list-style-type: none"> • 9th Generation Intel® Core™ i5 processor • 8 GB DDR4-2400 SDRAM (1 x 8 GB) • 1 TB 7200 rpm SATA • Intel® UHD Graphics 630 	
17	<p>INDO-AMERICAN ARTIFICIAL HEART PUMP (IAAHP)</p>	<ol style="list-style-type: none"> 1. Work Station 2. 3D Printer-(02) 	



Mechanical Engineering Students' Association (MESA)

The Mechanical Engineering Student Association (MESA) is the premier body of Mechanical Engineering department in KITSW and is formed out of voluntary enthusiasm and extreme passion of its students to discover the deepest knowledge of their interests.

Under the extraordinary guidance of Head of the department, faculty and with their unconditional and invaluable support, students here in the association improve their every skill and strive with an obsession of carving their capabilities to perfection and mastery.

The executive council of MESA is constituted for the academic year 2020-21. The following are the office bearers nominated for various positions of MESA.

Dr. K. Sridhar, Professor & Head, MED

Sri G. Vinod Kumar, Assistant Professor, Faculty In-charge (MESA)

Sri S. Anil Kumar, Assistant Professor, Faculty In-charge (MESA & ISTE)

S.No	Position	Section	Name of the Student
1.	President	4M3	K. Sai Charan (B17ME133)
2.	General Secretary	4M1	R. Chandrahaas Sharma (B17ME036)
		4M2	K. Akhil Raja (B17ME061)
		4M3	G. Sriram (B17ME132)
3.	Joint Secretary	3M1	Ch. Manohar Reddy (B18ME004)
		3M2	D. Sathvik Reddy (B18ME066)
		3M3	K. Santhosh (B18ME177)
4.	Public Relations Incharge	4M2	MD. Assad Ullah Sharif (B17ME065)
		3M2	D. Sharon Stephen (B18ME112)
5.	Treasurer	4M1	E. Sreeja Rao (B17ME006)
		3M3	S. Manoj (B18ME163)
6.	Disciplinary Incharge	4M1	P. Gokul (B17ME015)
		3M1	K. Ashish (B18ME024)
7.	Executive Members	4M1	S. Kousalya (B17ME025)
		4M1	G. Nikitha (B17ME028)
		4M2	K. Sri Vathsav (B17ME092)
		4M2	G. Megith (B17ME068)
		4M3	B. Rohith (B17ME139)
		4M3	P. Naga Sai (B17ME136)
		3M1	B. Harshini (B18ME058)
		3M1	A. Venkata Satya Ramanuja Charyulu (B18ME003)
		3M1	R. Sai Charan (B18ME015)
		3M2	P. Jhansi (B18ME085)
		3M2	Nazrin (B18ME108)
		3M2	M. Karthik Yadav (B18ME072)
		3M3	J. Manideep (B18ME126)
		3M3	B Ramya (B18ME166)
		3M3	K. Saiteja (B18ME127)
		2M1	K. Jayanth (B19ME040)
		2M1	K. Pavan Krishna (B19ME019)
		2M1	M. Himanshuka (B19ME013)
		2M2	T. Ravi Teja (B19ME078)
		2M2	A Vishal (B19ME072)
2M2	Syed Haseeb (B19ME068)		
2M3	B. Kavyasree (B19ME131)		
2M3	K. Abhiram (B19ME141)		
2M3	P. Vaishnavi (B19ME158)		

ROLE OF PERSON IN POSITION FOR MESA:

PRESIDENT: He or she is responsible for taking care of the overall activities, events and the members of MESA.

GENERAL SECRETARY: He or she is responsible for the initiating and conducting various events during MESA sessions.

JOINT SECRETARY: He or she is responsible for managing the executive body members of MESA and delegating works to them.

TREASURER: He or she is responsible to maintain the records of events, people attending the events and monetary transactions for the MESA sessions.

PUBLIC RELATIONS IN-CHARGE: He or she is responsible for publicizing the events conducted by MESA and taking photographs and videos for documentation.

EXECUTIVE MEMBER: He or she is responsible for conducting the events and activities of MESA.

Events held under Mechanical Engineering Students' Association for the academic year 2020-2021.

All the activities in MESA have been handpicked by the veterans of the department with meticulous efforts put into the design process and the following gives the detail information and schedule of various programs to be conducted in this year.

S. No	Name of the Event	Organized Under	Resource Person/Judges	Date(s)	No. of participants
1.	Aeromodelling of Drones	Jointly organized ISTE and MESA KITS WARANGAL	Mr. Sayanth K S Ezinit Education LLP, Navi Mumbai	11 December, 2020	92
2.	Paper Presentation	Jointly organized ISTE and MESA KITS WARANGAL	Sri S. Ramesh Sri K. Kishor Kumar Sri S. Sripathy Ms.V. Laxmi Priyanka Sri V. Rajesh Dr. Shakuntala Ojha	12 December, 2020	33
3.	Poster Presentation	Jointly organized ISTE and MESA KITS WARANGAL	Sri P. S. S. Murthy Sri M. Anil Kumar Dr. E. Ramesh Sri D. Sammaiah Sri V. Pradeep Dr. T. Manoj Kumar	12 December, 2020	27
4.	Techmela	Jointly organized ISTE and MESA KITS WARANGAL	Sri S. Chandramouli Dr. G. Sai Kumar Sri V. Srikanth Sri. P. Anil Kumar Sri C. Naresh	12 December, 2020	31
5.	JAM	Jointly organized ISTE and MESA KITS WARANGAL	Dr. G. Srinivasa Rao Dr. MD. Sameer Sri B. Ravi kumar Sri P. Sreedhar Ms. G. Sumithra	12 December, 2020	35

6.	Ideathon	Jointly organized ISTE and MESA KITS WARANGAL	Sri J. Laxman Sri A. Hari Kumar Smt. P. Anitha Sri V. Rakesh Dr. M. Omprakash	12 December, 2020	31
7.	Techwiz	Jointly organized ISTE and MESA KITS WARANGAL	Sri Ch. Karunakar Dr. G. Srinu Sri V. Prasanna Ms. P.Divya Sri B. Srinivasa Reddy	12 December, 2020	34

AEROMODELLING OF DRONE- WORKSHOP

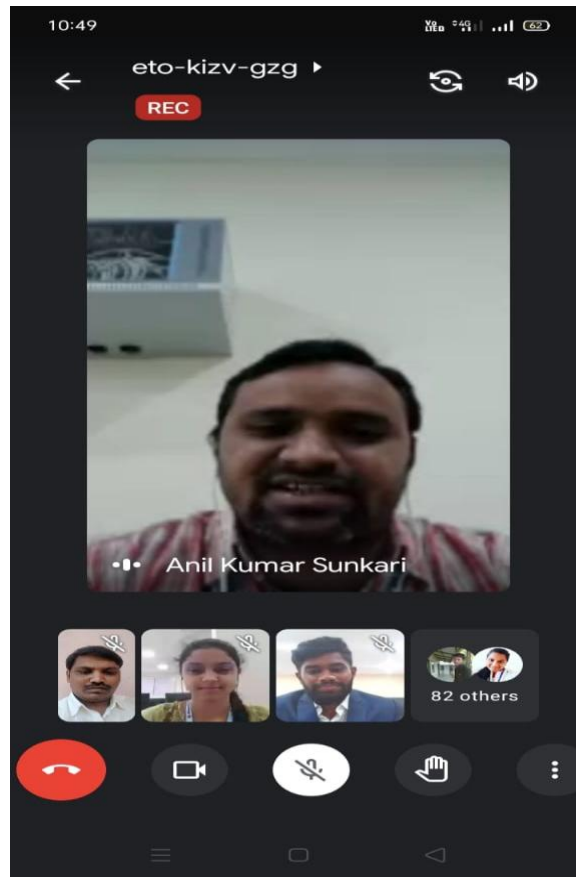
Workshop Description:

Have you ever wondered how the miraculous machines called Drone to leave the surface and explore the unknown? Do you want to learn how they are designed? Look no further, because as part of Sumshodhini'20 the Mechanical Engineering Department brings you a one day workshop on "AEROMODELLING OF DRONE" to introduce you to the world of aerial systems. A total of 92 students attended the workshop and e-certificates distributed to the participants through online.

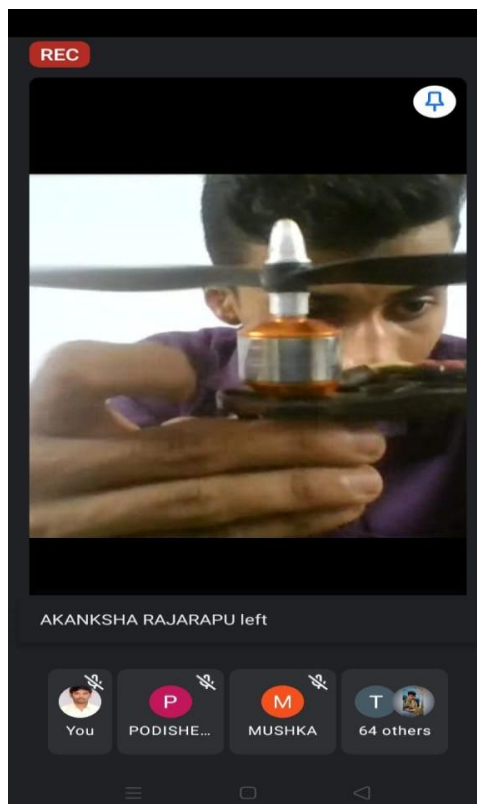


Topics to be covered:

1. Introduction to Aerial Robotics.
 - Type of Aerial System.
 - Future Applications of Aerial Robots
 - Market & Economy of Aerial Systems.
2. Introduction to Components
 - BLDC Motors.
 - Electronic Speed Controller (ESC).
 - Flight Controllers.
 - Radio System.
 - Battery.
 - Power Distribution.
3. Assembly of Aerial System.
4. Introduction to Flight Software & Calibration.
5. Flight & Simulation of Aerial Vehicles.



Aeromodelling of Drone workshop inaugural session talk by faculty coordinator on 11 December, 2020



During workshop session interaction to the students by Mr. Sayanth K S, Ezinith Education LLP, Navi Mumbai on 11 December, 2020

REC

CONTROL SURFACES

Adapted from <http://dipart.library.com/dipart/sign1&id.htm>

Savanth k s MD

ezenith

You

AKANKSHA

B K 67 others

11:25

eto-kizv-gzg ▶

TYPES OF AERIAL VEHICLES

REC

- FIXED WING
- MULTIROTOR
- SINGLEROTOR
- VTOL

Savanth MD

ezenith

AKANKSHA

B 81 others

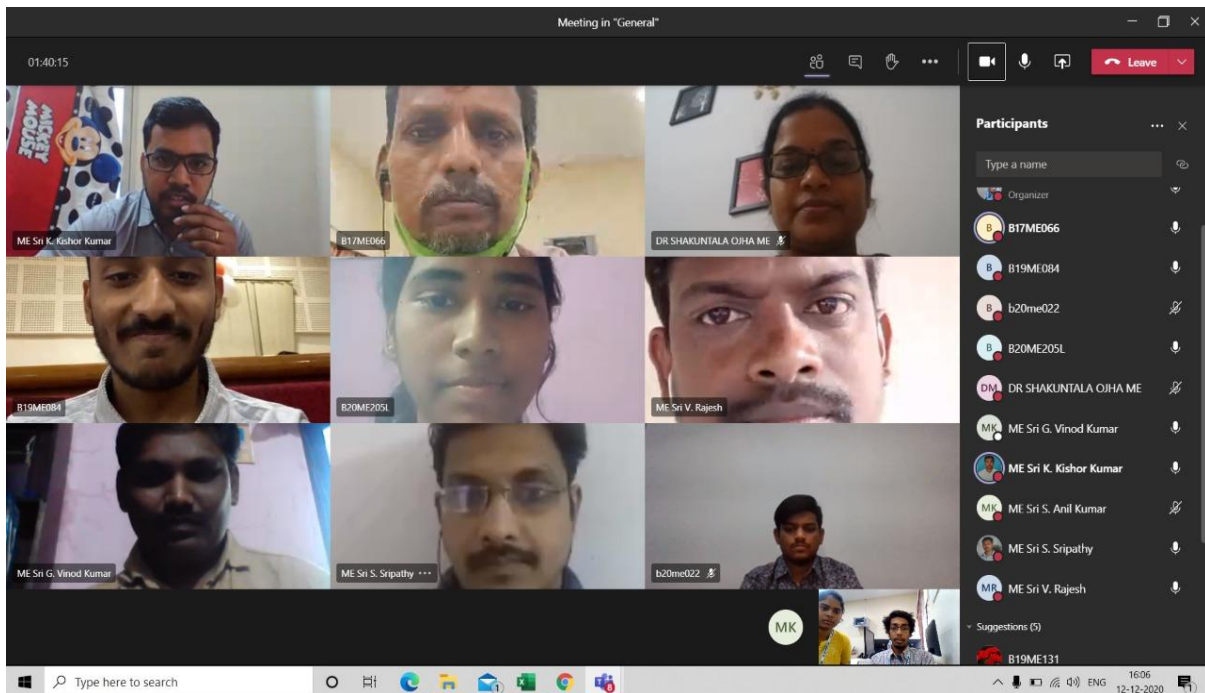
The following events were conducted as a part of National Technical Level Fest Symposium Sumshodhini 20 organized by the Mechanical Engineering Student Association (MESA) and ISTE Student Chapter, KITSW during 12 December, 2020.

- 1) Paper Presentation
- 2) Ideathon
- 3) Techmela
- 4) Poster Presentation
- 5) JAM
- 6) Techwiz

Paper Presentation Event Description:

For the paper presentation, only the technical topics are to be selected. Based on the way of presentation and the topic selected the winner of the event is decided. A total of 33 students attended the workshop and e-certificates distributed to the participants through online.

Virtual event images:



Ideathon Event Description:

This event will be conducted in two rounds.

Round 1

Five real-world problem statements will be given to the participants. Participants with the best possible solution to the given statement will be shortlisted for the second round.

Note:

1. PPT's will be encouraged in round 1.
2. Any other real-world problem statement of your own will also be considered, if the theme is exceptionally good.
3. Time duration for each team is 10 minutes.

Round 2

Shortlisted students of round 1 are eligible for round 2 where, a Problem statement will be given to the participants 2 hours prior to start of 2nd round. Participants with the best possible solution to the given statement will be declared as the winners.

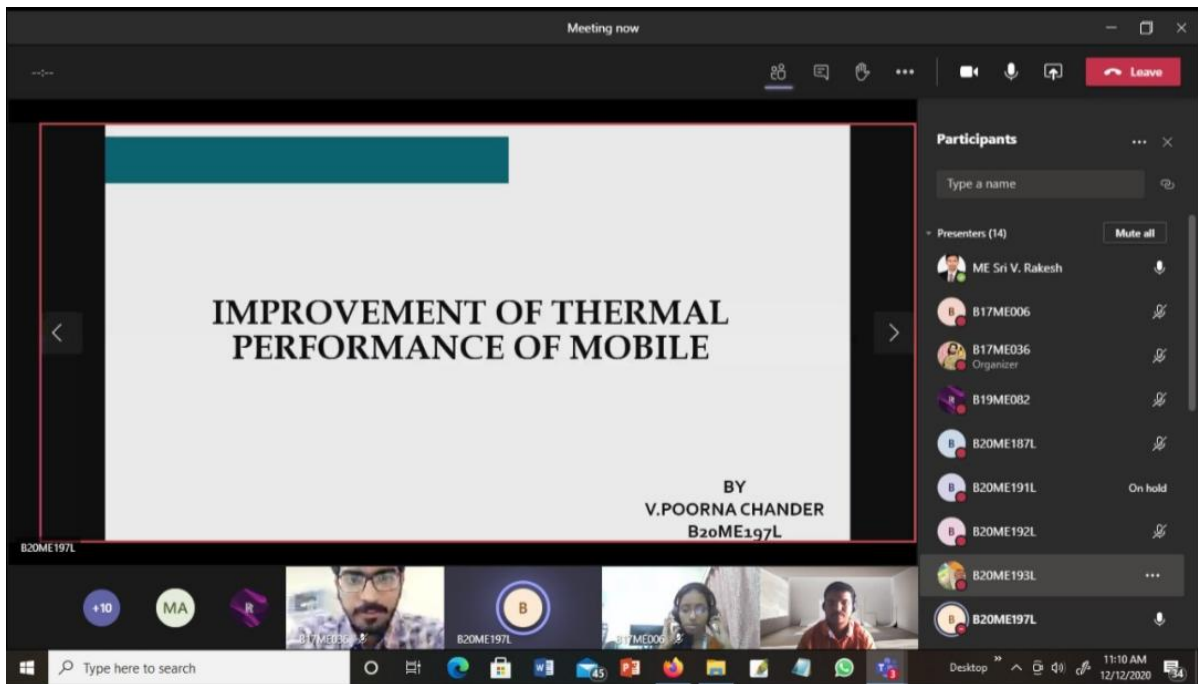
Note:

PPT is not required for round 2

Sample problem statements:

1. Improvement in cold starting of an engine.
2. Improvement of thermal performance of a mobile.
3. Cooling of a room without an external help (ac fan etc...).
4. Method for compensating repulsive force in a gun.

Virtual event images:



Techmela Event Description

This event will be conducted in three rounds.

Round 1:

1. 4 slides will be presented to the participants. Each slide consists of numbered gear (e.g., Gear 1, Gear 2, Gear 3 etc.). Every Participant will be given one opportunity to select a numbered gear and 3 technical questions allocated to that gear will be asked.
2. Time limit to answer each question is 30 seconds.
3. Participants who answered at least 1 of the 3 questions correctly will be shortlisted for round 2.

Round 2: Jumbled word

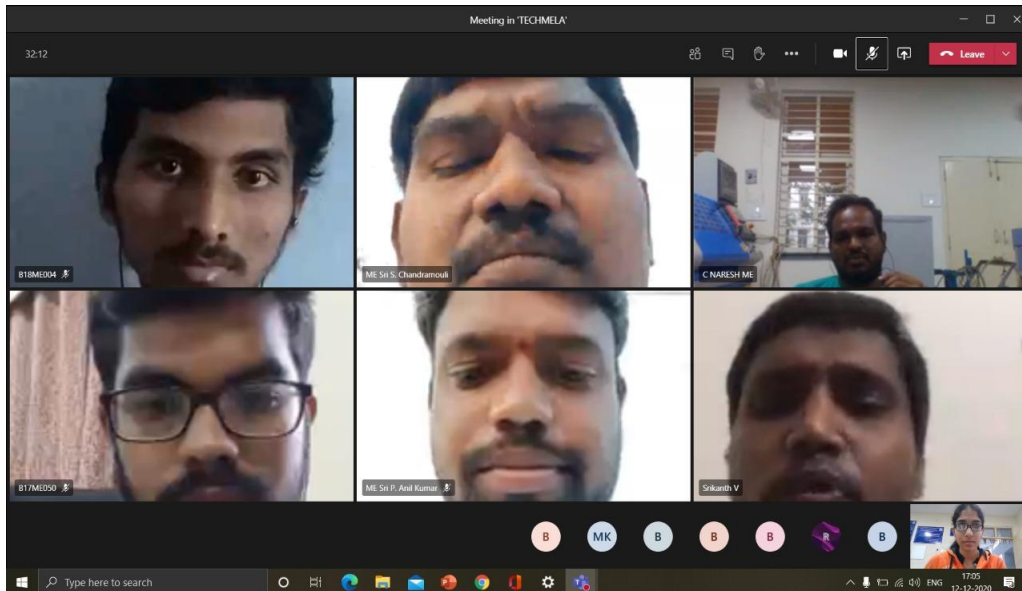
Shortlisted students of round 1 are eligible for round 2 where,

1. A description of 5 mechanical components will be given. Participants must identify the machine components/ mechanical part based on the description.
2. First letter of each machine component obtained from the given description is a 5-letter jumbled word.
3. Solve the jumbled word (The obtained word will also be a machine component/ mechanical part).
4. Participants who give the correct solution for the final jumbled word in least time will be shortlisted into the final round.

Round 3: Rapid fire

1. Participants must select one topic from the given 3 topics.
2. Questions will be asked from the selected topic and time limit for each participant is 1 minute 30 seconds.
3. In the given time, participants with highest number of correct answers will be declared as winners.

Virtual event images:



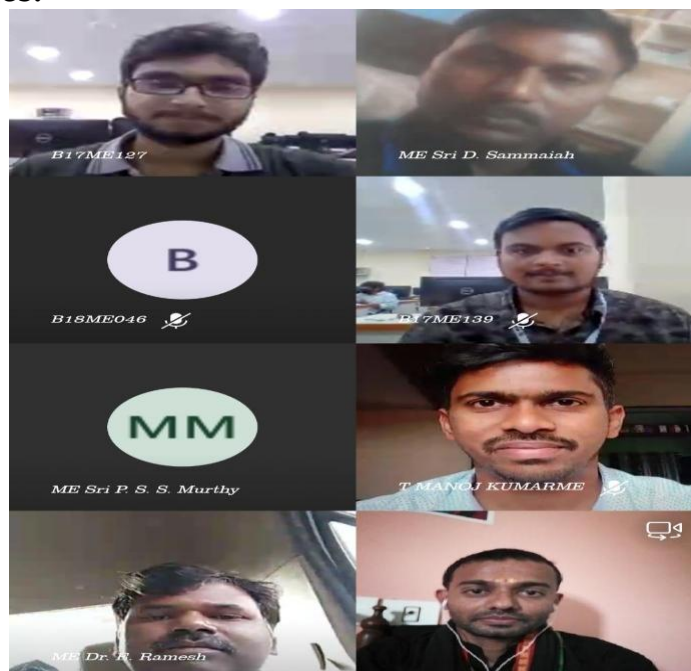
Poster Presentation Event Description:

For the poster presentation, 10 themes will be given to the participants. The poster should be drawn on a A4 sheet or a drawing sheet. Any types of coloring are encouraged. Participants with the best poster and explanation will be the winners of the event.

NOTE:

- The poster is mandatory.
- Only one poster is allowed per participant.
- Any other mechanical related theme of your own will also be considered if the theme is exceptionally good.
- The themes will be given prior to the event and the poster can be drawn once the themes are given.
- The time duration for each participant for presentation is 10 minutes.

Virtual event images:



Just A Minute Event Description:

JAM is an event in the technical world conducted in order to know the capabilities of a participant, such as spot thinking, speaking skills and so on, so that the participant is evaluated accordingly. Here in this event conducted for Sumshodhini 2020, there will be two rounds which are to be conducted among the registered participants which will involve their speaking skills in the first round and reading skills (for 1st year participants) or design interpretational skills (for 2nd, 3rd, 4th year participants). The rounds are described below with the sample topics for each round.

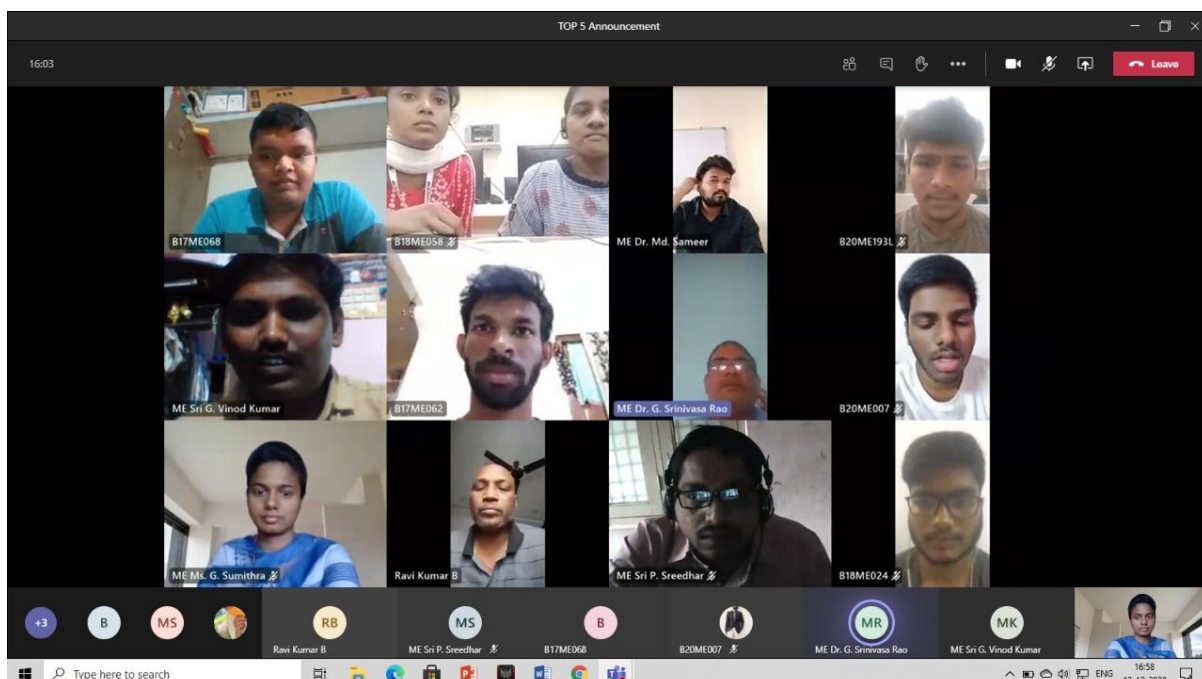
Round 1:

- i. Each participant will be allotted to a topic which will be based on the lucky pick.
- ii. The participant will be given 1 minute to think about the topic, 1 minute to interpret it, and 30 seconds to conclude it.
- iii. The marks will be allocated to the participants in the following way,
 - a) 5 marks for thinking (i.e., no participant must try to collect data via any other means such as by searching in web browser, etc.). To verify it the video must be turned on.
Note: Network problem, etc. reasons must not be mentioned.
 - b) 10 marks for speaking skills.
 - c) 5 marks for conclusion.
- iv. The participants who scored a minimum mark (which will be decided according to percentile) will be qualified for the second round.

Round 2:

- i. The qualified participants from round 1 will be given either a paragraph related to technical topics or will be given a design which the participants must analyze and speak about it within the time limit given.
- ii. The time limit of displaying it will be 1 minute 30 seconds only.
- iii. After the time limit expires, the participant must explain the given paragraph or design in his own words.
- iv. The participant will be given 1 minute 30 seconds to explain, and 30 seconds to conclude.
- v. This round consists of 30 marks, where 10 marks are given for analyzation of data or design, 15 marks for speaking and points considered, 5 marks for conclusion.

Virtual event images:



Techwiz Event Description:

Checking the general knowledge of the participants related to the automotive, technical and related subjects mentioned below:

- Technologies
- Personalities
- Places
- Vehicle types and specifications
- Companies
- Logos

Event rules

There are 2 rounds in this event.

Round- 1

- 5 questions for each member.
- 5 points for correct answer.
- 0 For not answered or wrong answer attempt.
- Each question has 30 sec time limits.

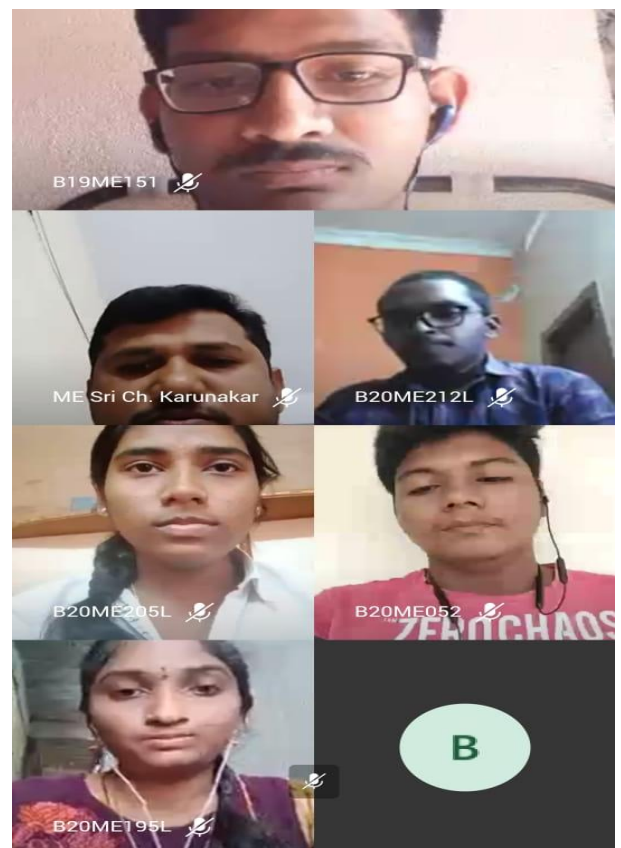
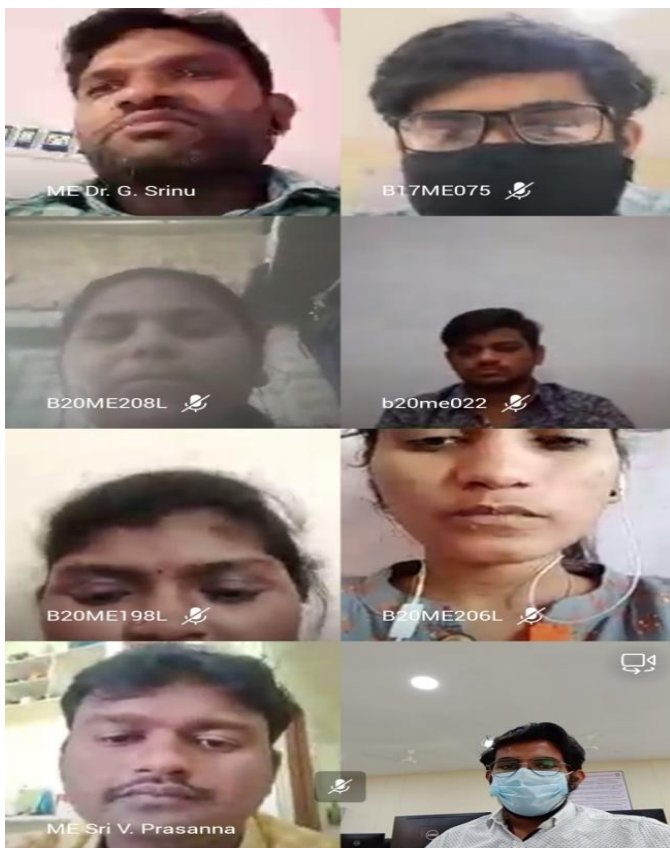
Round- 2

- 3 or 4 photos will be shown, component or part of any of the photos will be shown, student has to select the parent photo.
- 10sec time for question visualization.
- Time limit is 50sec.
- Two questions will be posed for each member.
- 2points for correct answer 0 for wrong answer.

Judging criteria

- Total points in two rounds will be added and top 2 will be selected as winners

Virtual event images:



SAE INDIA ACTIVITIES

DEPARTMENT OF MECHANICAL ENGINEERING

Faculty Incharges:

1. Ch. Karunakar, Asst.Professor, MED
2. K. Kishor Kumar, Asst.Professor, MED

List of Events attended by SAE team during Academic year 2020-2021

S. No	Activity	Participants/Speakers
1	Formula Bharat 2021 quiz	Quiz team_FR'20
2	Formula Student Germany 2021 quiz	Quiz team_FR'20
3	Designs review session	Mr. Anvesh Anumala
4	FB 2021 participation	Team FR'20
5	Interaction session with alumni on power train development and data acquisition	Mr. Guru Bhargav & Mr. Tharun Kumar
6	Formula Bharat 2022 quiz	Quiz team_FR'21

1. Student team representing our institution got selected for FB2021, surpassing quiz in 19th position out of 80 teams (Jul-8).
2. Student team representing our institution got selected for FSG2021 surpassing quiz at 71st position out of 911 global FS teams. Overall 6th position among Indian FS teams participated in the quiz (Feb-2021).

Country	Team Name	Score
GB	Cardiff Racing	315
GB	Team Bath Racing	301
DE	München LUDV	273
DE	Hannover MAS	264
RU	St. Petersburg F1	226
PK	Karachi NEDJEE	243
HR	Soft U	272
HU	Győr U	279
DE	Darmstadt TU	343
GR	Thessaloniki U	312
IL	Halla Technion	249
US	Auburn U	366
ES	Castellón de la Plana UJI	299
IN	New Delhi NSIT	303
PL	Gdansk TU	295
IN	Chennai SRM	300
IN	Wazirpur IITSW	244
PL	Białystok TU	307
RO	Timisoara UPT	296
IN	Gandhinagar GTU	247
DE	Koblenz UAS	332
IN	Bhub. MIT-WPU	227
CN	Changchun JLU	259
GR	Volos U	377
IN	Bhub. VIT	347
ES	Puerto Real UCA	291

3. An explanation and review of SAE team designs, session for FB2021 (Jan-2021) with Mr. Anvesh Anumala [FSAE judge, Michigan Technological University].
4. Participated in FB 2021 (held virtually) in which design, modelling, and assembly of a Formula Student Race car prototype. Design presentation, business plan presentations are also part of the competition (started on 26th Feb,2020 and is continued throughout the academic year as per the deadlines given by Formula Bharat).

Results of Formula Bharat 2021:



TEAM RESULTS CERTIFICATE

FORMULA BHARAT 2021

JAN 23 - FEB 21, 2021 | COMBUSTION | VIRTUAL







THIS CERTIFICATE IS BEING PRESENTED TO

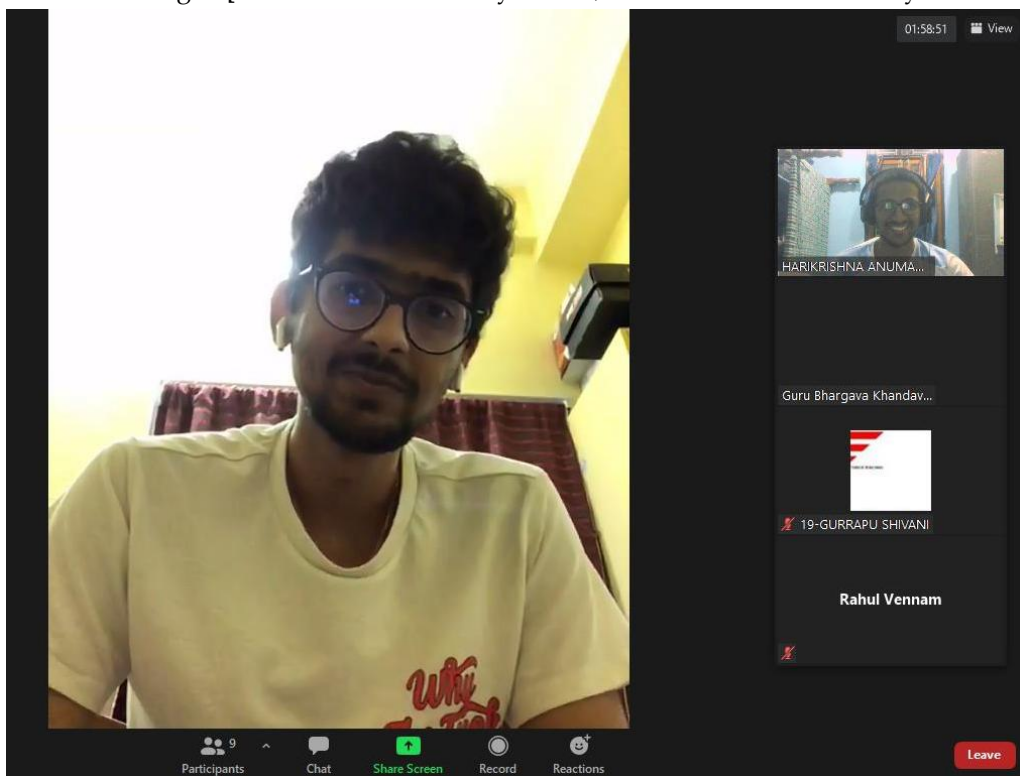
	Event	Penalty	TOTAL	Rank
19 Force Racing Kakatiya Institute of Technology and Science, Warangal BARCODE: FB2021-RC-039	Business Plan	BPP / 0	35.76	55
	Engineering Design	DSS / 10 // EDP / 40	75.21	56
			60.97	56

AUTHORIZED BY CATHY D'SOUZA, EVENT MANAGER (FORMULA BHARAT) & DIRECTOR (CURIOSUM TECH) | INFO@CURIOSUMTECH.IN

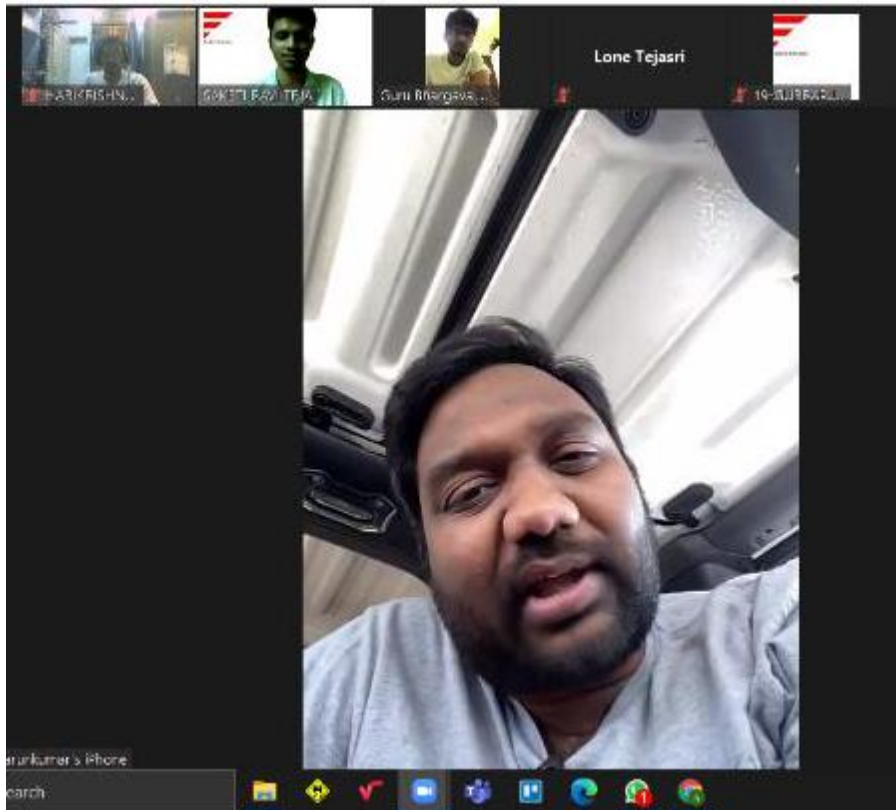
5. An interaction session with alumni on Powertrain development, data acquisition. (April-2021)

Speakers:

Mr. Guru Bhargav [Professor in Vehicle Dynamics, RWTH Aachen University Germany]



Mr. Tharun Kumar [Nikola electric trucks, Testing and development US]



6. Student team representing our institution got selected for FB2022 surpassing quiz in 8th position out of 33 teams in India.

CAR #	TEAM NAME	INSITUTION	COUNTRY
01	Formula Manipal**	Manipal Academy of Higher Education	India
02	CRCE Formula Racing	Fr. Conceicao Rodrigues College of Engineering	India
03	Force Ikshvaku Racing	The National Institute of Engineering	India
04	Phoenix Racing	Sardar Vallabhbhai National Institute of Technology, Surat	India
05	Ojaswat Motorsports	Chandubhai S Patel Institute of Technology	India
06	XLR8 Formula Student Team	TKM College of Engineering	India
07	STES Racing	Sinhgad College of Engineering	India
08	Force Racing	Kakatiya Institute of Technology and Science, Warangal	India
09	SASTRA Racing Team	SASTRA Deemed To Be University	India

**A One Week Online
Faculty Development Programme
RECENT DEVELOPMENTS IN MECHANICAL ENGINEERING- 2020 (RDME-2020)
7 - 11 July 2020**

**Organized by
DEPARTMENT OF MECHANICAL ENGINEERING
In Association With
ISTE - KITSW, SAE-INDIA
INSTITUTION'S INNOVATION COUNCIL**

A one-week faculty development program (online) on “RECENT DEVELOPMENTS IN MECHANICAL ENGINEERING” was organized from 7 - 11 July 2020, in the Department of Mechanical Engineering. A total of NINE resource persons have delivered lectures on various topics related to RECENT DEVELOPMENTS IN MECHANICAL ENGINEERING. Totally Four Hundred and Seventy (555) members have registered for the program.

Dr. K. Ashoka Reddy, Principal, KITSW was the chairmen of the FDP programme , and he has presided over the function and congratulated the organizers, emphasized the significance of the programme towards fulfillment of needs of the society. Dr. K. Sridhar, Professor and Head, Department of Mechanical Engineering, Kakatiya Institute of Technology and Science, has acted as a Covener of the event, appreciated the team (RDME-2020) for organizing this event. He elaborated that; the program will provide a vast exposure to the latest developments in mechanical engineering w.r.t industry. Dr. Dr. P Prabhakara Rao, Associate Professor, MED and Dr. Dr. MD Sameer, Assistant Professor, MED, are the coordinators for the programme.

**A one-week faculty development programme (online) on
RECENT DEVELOPMENTS IN MECHANICAL ENGINEERING**

7th July - 11th July, 2020

Organized by

Department of Mechanical Engineering

Time 10: 00 AM -10: 30 AM Inaugural				
07-07-2020	08-07-2020	09-07-2020	10-07-2020	11-07-2020
10:30 AM - 11:30 AM	10:00 AM - 11:30 AM	10:00 AM - 11:30 AM	10:00 AM - 11:30 AM	10:00 AM - 01:00 PM
				
Dr. D.Benny Karunakar Associate Professor, IIT Roorkee	Dr. Adepu Kumar Professor NIT Warangal	Dr. Vijaya Kumar M Asst. Professor NIT Warangal	Dr.Ch Damodara Reddy Scientist IHPC, Singapore	Dr. P Anil Kumar Scientist F & Director DRDO, HYD
<i>Topic</i> Developments and challenges in investment casting process	<i>Topic</i> Recent advances in additive manufacturing	<i>Topic</i> Production and Manufacturing Systems for Industry 4.0	<i>Topic</i> Low dimensional materials: Graphene and beyond	<i>Topic</i> Structural Design in Practice
TEA Break	TEA Break	TEA Break	TEA Break	TEA Break
12:00 PM to 1:30 PM	12:00 AM-1:30 PM	12:00 AM-1:30 PM	12:00 AM-1:30 PM	01:00 PM-1:30 PM
				Valediction
Dr. D.Benny Karunakar Associate Professor, IIT Roorkee	Dr. Veeresh Babu A Associate Professor NIT Warangal	Dr. Anil Kumar Birru Asst. Professor NIT Manipur	Dr. L Siva Rama Krishna Associate Professor OU	
<i>Topic</i> Developments and challenges in sand casting process	<i>Topic</i> A comprehensive review of fuel cell technology	<i>Topic</i> A study on dental crowns to enhance casting yield	<i>Topic</i> Case Studies on the Innovative Applications of Additive Manufacturing	
Organizing Committee				
				
Dr. K. Ashoka Reddy Principal, KITSW Chairman	Dr. K. Sridhar HoD, MED, KITSW Convener	Dr. P Prabhakara Rao Associate Professor KITSW Coordinator-1	Dr. MD Sameer Assistant Professor KITSW Coordinator-2	

Registration Link: <https://forms.gle/czcmnc67EEe5Y6xj9>

**A One-Week
Faculty Development Programme (Online) On
ADVANCED MATERIALS AND MANUFACTURING
29 June – 03 July, 2020**

DEPARTMENT OF MECHANICAL ENGINEERING

A one-week faculty development program (online) on “ADVANCED MATERIALS AND MANUFACTURING” was organized from 29th June – 03rd July, 2020, in the Department of Mechanical Engineering. A total of NINE resource persons have delivered lectures on various topics related to ADVANCED MATERIALS AND MANUFACTURING. Totally Four Hundred and Seventy (470) members have registered for the program.

Dr. K. Ashoka Reddy, Principal, KITSW was the chairmen of the FDP programme , and he has presided over the function and congratulated the organizers, emphasized the significance of the programme towards fulfillment of needs of the society. Dr. K. Sridhar, Professor and Head, Department of Mechanical Engineering, Kakatiya Institute of Technology & Science, has acted as a Convener of the event, appreciated the team ADVANCED MATERIALS AND MANUFACTURING, for organizing this event. He elaborated that; the program will provide a vast exposure to the latest manufacturing techniques in industry to participants. Dr. Aruri Devaraju, Associate Professor, MED and Dr. G. Sai Kumar, Assistant Professor, MED, are the coordinators for the programme.

*A one-week faculty development programme (online) on
ADVANCED MATERIALS AND MANUFACTURING
29th June – 03rd July, 2020*

Organized by

Department of Mechanical Engineering

Schedule:

29-06-2020	30-06-2020	01-07-2020	02-07-2020	03-07-2020
10:30 AM -11:00 AM	10:30 AM – 11:30 AM	10:30 AM – 11:30 AM	10:30 AM – 11:30 AM	10:30 AM – 11:30 AM
				
Inaugural	Sri. K. Karthik Scientist-E DRDL-Hyd	Dr. K.Chakradar Asst. Professor-MED IIT-Pallakada	Dr.K.Murahari Associate Professor-MED LBRCE-A.P.	Dr. G. Srinivasu Asst. Professor-MED NIT-Raipur
11:00 AM-12:30 PM	11:30 AM-12:30 PM	11:30 AM-12:30 PM	11:30 AM-12:30 PM	11:30 AM-12:30 PM
				
Dr. A. Kumar Professor, MED NIT Warangal	Dr. K.Kishore Kumar Researcher Dong Eui University, South Korea	Prof. P. Srikanth Professor-MED KITSW	Prof. U.Shrinivas Balaraaj Professor-MED KITSW	Prof. K.Eswaraiah Professor-MED KITSW

Organizing Committee

			
Dr. K. Ashoka Reddy Principal, KITSW Chairman	Dr. K. Sridhar HoD, MED, KITSW Convener	Dr. A. Devaraju Associate Professor, MED, KITSW Coordinator	Dr. G. Saikumar Assistant Professor, MED, KITSW Coordinator

Registration Link: <https://forms.gle/VNHQ4rkCtdY5XCsiM9>

Projects completed by Final Year Students during 2020-21



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL-15
DEPARTMENT OF MECHANICAL ENGINEERING
(An Autonomous Institute under Kakatiya University, Warangal)

Final Major Project Allotment List B.Tech (Mechanical Engineering)- (M1-Section) Academic Year: 2020-2021					
S.No	Batch No.	Roll Number	Name of the student	Code & Title of the project	Name of the supervisor
1	1	B17ME025	SAMUDRALA KOUSALYA	(D-14) 5DOF Wireless Hand Motion Controlled Robotic Arm	Ms.G.Sumitra Assistant Professor
2		B17ME036	RAMPELLY CHANDRAHAAS		
3		B17ME006	EDITHIVENI SREEJA RAO		
4		B18ME192L	NAGELLI SHRAVAN KUMAR		
5	2	B17ME010	AVIDI GOUTHAM CHANDRA	(T-11) Energy Analysis Of Hybrid Solar Collector.	Sri.G.Vinod Kumar Assistant Professor
6		B17ME042	NEELAM LOKESH REDDY		
7		B17ME038	NANDIPATI RAVI CHANDRA		
8		B17ME012	TUMIKI SETHU PAVAN		
9	3	B17ME039	KONDAM SAISUMANTH REDDY	(D-3) Development and Characterization of Jute Cellulose Reinforced Composite Materials	Ch.Karunakar Assistant Professor
10		B17ME044	KONGARA KUSHAL		
11		B17ME045	AJMEERA SHANKAR		
12		B17ME015	PABBA GOKULCHARAN		
13	4	B17ME056	D RAJESH	(D-1) Effect Of Alkali Treatment On Microstructure And Mechanical Properties Of Coir Fibre Reinforced-KGG Composites	Dr.K.Raja Narendra Reddy Professor
14		B17ME021	KANKANALA SAI KRISHNA		
15		B17ME060	KHAJA NAJMUL HASSAN		
16		B17ME019	KODIMELA SIVAGURU SARMA		
17	5	B18ME182L	ADAPA RAJESH	(T-16) Performance Of A Solar Air Heater With And Without Heat Storage Material	Sri.S.Anil Kumar Assistant Professor
18		B17ME034	P BHARATH		
19		B17ME024	PASUNOORI AJAY KUMAR		
20		B17ME014	BONDHUGULA ARUNDHATHI		
21	6	B18ME183L	PIKKALLA ANIL	(T-1) Performance Analysis Of Solar Flat Plate Collector	Dr.K.Sridhar Professor
22		B17ME013	AILURI ANKAL REDDY		
23		B17ME032	BODDU BHEEM RAO		

24		B17ME001	MOHAMMED ISMAIL	For Different Emissivity Plates	
25	7	B17ME046	B SAI KARTHEEK REDDY	(P-14) Investigations On The Effect Of Fused Deposition Modelling Process Parameters Using Response Surface Methodology	Dr.Md.Sameer Assistant Professor
26		B17ME041	KONDA SRISHMA		
27		B17ME037	N AMRUTHA SAI SRI NIKHILA		
28		B17ME009	KOCHERLA SAMANTHA		
29	8	B18ME181L	CHUNCHU ALEKHYA	(P-15) Preparation And Characterization Of Mmc's Through Powder Metallurgy	Dr.G.Sai Kumar Assistant Professor
30		B18ME188L	ARE PRAJOSHNA		
31		B17ME043	MIRZA AYAZ BAIG		
32		B18ME190L	CHAVALAM CHANDRIKA		
33	9	B17ME028	GHANTA NIKITHA	(D-4) Development and Experimental Characterization Of Aluminum Composite Foams	Sri.A.Hari Kumar Assistant Professor
34		B17ME050	CH VENKATA KRISHNA REDDY		
35		B17ME033	BILLA SUNNY		
36		B17ME022	KARTHIK MAHESH RATHOD		
37	10	B18ME187L	BODDUNA VAMSHI KRISHNA	(T-02) Hydrogen Powered Motorcycle	Dr.K.Sridhar Professor
38		B17ME035	JAKKULA SAGAR		
39		B17ME031	KARRA VARUN KUMAR REDDY		
40		B17ME004	BAVU MADHAV YADAV		
41	11	B17ME059	DOMMATI SUMITH	(D-06) Evaluation Of Mechanical And Wear Behavior Of Reinforced Aluminum Hybrid Micro And Nano Composite	Smt.P.Anitha Assistant Professor
42		B17ME049	GOLLA SAI KARTHIKEYA		
43		B17ME189L	MOHAMMED AKRAM ALI		
44		B17ME011	BONTHALA SAI MEGHANA		
45	12	B17ME016	SYED YASEER AHMED	(T-04) Conjugate Mixed Convection	Dr.G.Ganesh Kumar Associate Professor
46		B17ME055	PUJARI VIVEK		
47		B17ME005	MOHAMMED AKBARUDDIN		
48		B17ME008	AKASH REDDY THANGELLA		
49	13	B17ME051	KALEPELLI KARUNAKAR	(T-08) Mixed Convection Heat Transfer Analysis Of In A Porous Pipe With Hybrid Nanofluid	Dr.G.Srinivasa rao Assistant Professor
50		B17ME030	R VENKANNA		
51		B18ME191L	MERUGU KAVYA		
52		B17ME054	TALLAPALLY ARAVIND GOUD		
53	14	B17ME048	BOLAKONDA AJAY KUMAR	(D-15) Mechanical Characterization Of	Sri.V.Pradeep Assistant Professor

54		B17ME002	THONUPUNOORI ROHITH CHANDRA	AL 7075 Hybrid Metal Matrix Composite	
55		B17ME003	THOTA PRASHANTH		
56		B17ME053	POLEPAKA VISHAL		
57	15	B17ME027	GUGULOTH LAHARIKA	(P-02) Optimization Of Process Parameters Of Micro Edm On Titanium Based Alloys	Dr.P.Srikanth Professor
58		B17ME018	N BHARATH SIMHA REDDY		
59		B17ME023	POTHULA SRUSHTI		
60		B17ME029	MOHD ABDUL HASEEB		
61	16	B18ME184L	SANDINENI ARUN KUMAR	(T-17) Comparision of different turbulence models for turbulent flow in ducts	Dr.E.Ramesh Assistant Professor
62		B17ME052	A LAKSHMI NARAYANA RAJU		
63		B18ME186L	SHAIK SHAJAHAN		
64		B17ME040	SYED NAAVED IBRAHIM CHISTY		
65	17	B17ME047	ARCHITH REDDY BILLA	(P-13) Friction Stir Welding Of Additively Manufactured Alsi10mg-Tic Mechanical And Microstructural Properties	Dr.Md.Sameer Assistant Professor
66		B17ME185L	CHETLAPALLY SAIKUMAR		
67		B17ME017	NAMANI SAI TEJA		
68		B17ME058	JANGILI DHANUSH		



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL-15

DEPARTMENT OF MECHANICAL ENGINEERING

(An Autonomous Institute under Kakatiya University, Warangal)

Final Major Project Allotment List B.Tech (Mechanical Engineering)- (M2-Section) Academic Year: 2020-2021					
S.No	Batch No.	Roll Number	Name of the student	code & Title of the project	Name of the supervisor
1	1	B17ME061	Keshetti Akhil Raja	(P-8) Friction Stir Processing Of High Entropy Alloys	Dr.A.DEVARAJ Associate Professor
2		B17ME063	Poondru Manish Reddy		
3		B17ME100	L Rohith		
4		B17ME065	Mohammed Assadullah Sharfi		
5	2	B17ME095	Vanam Sindhuja	(P-11) Analysis And Optimization Of EDM Drilling Parameters	Sri.J.LAXMAN Assistant Professor
6		B17ME073	Sri Venkata Subrahmanyam V		
7		B17ME099	Mohammad Niyaz		
8		B18ME204L	Chiluka Shylaja		
9	3	B17ME112	Mididoddi Srilekha	(D-7) Preparation And Testing Of Glass Fibre Reinforced Polymer Composite Material.	Sri.S.SRIPATHY Assistant Professor
10		B17ME117	M Sharath Chandra		
11		B17ME104	Putta Naveen		
12		B17ME069	Rayapuri Vinay		
13	4	B17ME067	Puranam Sai Naga Charan	(P-1) Study Of Machining Parameter On 13/8 Steel Using EDM	Dr.K.ESWARAIAH Professor
14		B17ME109	Banoth Prasad		
15		B17ME078	Dainam Pelly Ravi Varma		
16		B17ME074	Duppatti Deepak Shodhan		
17	5	B18ME193L	Addagatla Chandu	(P-18) Friction Stir Welding On Magnesium And Copper Alloy	Sri.D.SAMMAIAH Assistant Professor
18		B18ME202L	Kolkuri Sangamesh		
19		B18ME195L	Oruganti Sreeman		
		B16ME120	G.Vasudevarao		
20		B17ME114	Syed Shoyab		
21	6	B17ME082	Thodupunoori Nimish	(D-12) Design And Static Structural Analysis On Different Types Of Shell Structures	Sri.V.RAKESH Assistant Professor
22		B17ME075	Gadipelly Siddartha Reddy		
23		B17ME084	Manthangodu Manideep		
24		B17ME093	Tilmeez Rahmani		
25	7	B17ME105	Narra Sreeja	(D-05) Water Absorption And Mechanical Properties of Chemically Treated Natural Fiber Reinforced Polyester Composites	Sri.K.KISHOR KUMAR Assistant Professor
26		B17ME119	Madasi Sai Chandra		
27		B17ME113	Gajula Sumanth		
28		B17ME111	Erukala Akhil		



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL-15
DEPARTMENT OF MECHANICAL ENGINEERING
(An Autonomous Institute under Kakatiya University, Warangal)

Final Major Project Allotment List					
B.Tech (Mechanical Engineering)- (M3-Section)					
Academic Year: 2020-2021					
S.No	Batch No.	Roll Number	Name of the student	code & Title of the project	Name of the supervisor
1	1	B17ME143	Vemula Ritwik	Some Studies on Role and Impact of 3D Printing Technologies in Casting	Dr. P. PRABHAKARA RAO Associate Professor
2		B17ME122	Gampa Shainetha		
3		B17ME144	Mohd Shamsheer		
4		B17ME142	A Vamshi Krishna		
5	2	B17ME178	Giddamari Akhila	Production And Characterisation Of Hybrid Aluminium Metal Matrix Composites	Dr. P.PRABHAKARA RAO Associate Professor
6		B17ME167	Shilagani Divya		
7		B17ME132	Gunda Sriram		
8		B17ME126	Mohammed Furqan Ahmed		
9	3	B17ME145	Gaddam Shivasai	Design and simulation of solar flat plate collector with and without heat storage at bottom surface	Sri. G.VINOD KUMAR Assistant Professor
10		B18ME208L	Kanakam Sai Kumar		
11		B18ME212L	A Shashank		
12		B18ME216L	S Goutham		
13	4	B17ME159	Kasala Tejaswi	Stress Analysis of Laminated Composite Beam by Using MAT Lab Software	Sri. P.ANIL KUMAR Assistant Professor
14		B17ME165	Chilagani Vishwa Teja		
15		B18ME205L	Marapelly Meghana		
16		B17ME163	Bathini Akhil		
17	5	B17ME130	Ayachitula Nithish Kumar	Optimization of EDM Process Parameters Using Firefly Algorithm	Dr. U.SHRINIVAS BALRAJ Professor
18		B17ME139	Rohith Bajjuri		
19		B17ME121	B Manideep		
20		B17ME155	Maraboina Murugan Yadav		
21		B17ME123	B Vijay Kumar		
22	6	B17ME141	Gosula Tejaswi	Optimization of process parameters of micro EDM on steels	Dr. P.SRIKANTH Professor
23		B17ME152	Mattewada Meghana		
24		B18ME214L	Pailla Nikhitha		
25		B18ME215L	G Sougandh		
26	7	B17ME157	Alugu Srinadh	Design and Fabrication of Vertically Wall Climbing and Glass Cleaning Robot	Ms. P.DIVYA Assistant Professor
27		B17ME137	Mohammed Aamir		
28		B17ME166	Mudurakola Rakshith		
29		B17ME154	Shanam Shiva Kumar		
30	8	B18ME210L	Aparadhi Akhil	Influence of Friction Stir Welding on Mechanical Properties of Butt Joints of Aluminium Alloys	Sri. V.RAJESH Assistant Professor
31		B18ME211L	Jilukara Pragathi		
32		B18ME220L	Akuthota Hithesh		
33		B18ME209L	Bhukya Srikanth		
34	9	B17ME136	Palvai Naga Sai Reddy	Effect of Surface Modification on Dynamic	Sri. V.SRIKANTH Assistant Professor

35		B17ME133	Kachavarapu Sai Charan	Mechanical Properties of Palmyra/KGG Bio composites	
36		B17ME179	Dharavath Gopal		
37		B17ME140	Thallapally Akhil		
38	10	B17ME135	Pillalamarri Pranath Kumar	Comparison of Neural Network Models on Electrical Discharge Machining of Martensitic Stainless Steel	Sri. S.CHANDRAMOULI Assistant Professor
39		B17ME169	Rathod Prem Singh		
40		B18ME217L	G Jyothi		
41		B17ME128	Vanam Yashwanth		
42	11	B18ME207L	Chennuri Sai Raj	Experimental Investigation of a Triangular Channel Solar Air Heater	Sri. S.ANIL KUMAR Assistant Professor
43		B17ME172	Gundeti Sindhu		
44		B17ME171	Anumasa Koushik		
45		B18ME218L	G Sai Krishna		
46	12	B17ME127	Hemalla Manas Reddy	Application of RSM For The Optimization of Friction Surfacing Process	Sri. P.SREEDHAR Assistant Professor
47		B17ME156	Kadari Nithish		
48		B17ME125	Md Zakeer Hussain		
49		B17ME129	Jupaka Siddhartha		
50	13	B17ME138	Koppisetty Satvik	Optimization of EDM Process Parameters on Aluminium Alloy Metal Matrix Composite Material	Sri .J.LAXMAN Assistant Professor
51		B17ME134	Sika Srividya Jyothi		
52		B18ME213L	Durganala Tharuni		
53		B18ME219L	D Kalyan		
54	14	B17ME153	Nangunuri Rahul	Performance Assessment of Different Vegetable Oils In Turning of Ti6Al4V Alloy using MQL Technique	Dr. G.SRINU Assistant Professor
55		B17ME175	Vemulawada Ganesh		
56		B17ME168	Bandela Navakanth		
57		B17ME160	Muppalla Akhil Raj		
58	15	B17ME147	Chepuri Sowmya	Design and Analysis Thermo-Electric Generator Using Exhaust Waste From IC Engines	Dr. G.GANESH KUMAR Associate Professor
59		B18ME206L	Nakka Saideeraj		
60		B17ME174	T Akash		
61		B17ME146	Erra Purushotham		

Placement Details for Academic year 2020-21

S. No	Roll No.	Name of the student	Selected for company
1	B17ME002	THONUPUNOORI ROHITH CHANDRA	DXC Technologies
2	B17ME005	MOHAMMED AKBARUDDIN	Cognizant GenC
3	B17ME016	SYED YASEER AHMED	DXC Technologies
4	B17ME016	SYED YASEER AHMED	ZenQ Technologies
5	B17ME016	SYED YASEER AHMED	Infosys
6	B17ME018	NARSANNAGARI BHARATH SIMHA REDDY	Infosys
7	B17ME025	SAMUDRALA KOUSALYA	DXC Technologies
8	B17ME027	GUGULOTH LAHARIKA	Media Mint
9	B17ME025	SAMUDRALA KOUSALYA	Cognizant GenC
10	B17ME025	SAMUDRALA KOUSALYA	TechnipFMC
11	B17ME025	SAMUDRALA KOUSALYA	TCS NINJA
12	B17ME028	GHANTA NIKITHA	DXC Technologies
13	B17ME028	GHANTA NIKITHA	TechnipFMC
14	B17ME028	GHANTA NIKITHA	TCS NINJA

15	B17ME033	BILLA SUNNY	Infosys
16	B17ME041	KONDA SRISHMA	Infosys
17	B17ME046	B SAI KARTHEEK REDDY	Infosys
18	B17ME048	BOLAKONDA AJAY KUMAR	DXC Technologies
19	B17ME052	AMBATI LAXMI NARAYANA RAJU	Infosys
20	B17ME056	DURISHETTI RAJESH	Cognizant GenC
21	B17ME059	DOMMATI SUMITH	Cognizant GenC
22	B17ME061	KESHETTI AKHIL RAJA	DXC Technologies
23	B17ME061	KESHETTI AKHIL RAJA	Cognizant GenC
24	B17ME061	KESHETTI AKHIL RAJA	TCS NINJA
25	B17ME061	KESHETTI AKHIL RAJA	Infosys
26	B17ME062	J. PRAVALIKA	Infosys
27	B17ME064	M SRI RANGA REDDY	Cognizant GenC
28	B17ME066	DOKKA AKHILA	DXC Technologies
29	B17ME067	PURANAM SAINAGACHARAN	Cognizant GenC
30	B17ME082	THODUPUNOORI NIMISH	Cognizant GenC
31	B17ME082	THODUPUNOORI NIMISH	ACCENTURE
32	B17ME067	PURANAM SAINAGACHARAN	TCS NINJA
33	B17ME083	MOHAMMED FASIUDDIN	DXC Technologies
34	B17ME089	PAIDIPALA RANJITH	ACCENTURE
35	B17ME092	KONTHAM SRI VATHSAV	TCS Codevita
36	B17ME095	V.SINDHUJA	TechnipFMC
37	B17ME095	V.SINDHUJA	TCS NINJA
38	B17ME105	NARRA SREEJA	Medha Servo Drives
39	B17ME108	SREEAMULA VENKATA SAI	Cognizant GenC
40	B17ME112	M.SRILEKHA	Cognizant GenC
41	B17ME113	GAJULA SUMANTH	TCS NINJA
42	B17ME112	M.SRILEKHA	TechnipFMC
43	B17ME112	M.SRILEKHA	TCS NINJA
44	B17ME117	MUDIGONDA SHARATH CHANDRA	DXC Technologies
45	B17ME117	MUDIGONDA SHARATH CHANDRA	DXC Technologies
46	B17ME117	MUDIGONDA SHARATH CHANDRA	TCS NINJA
47	B17ME119	MADASI SAI CHANDRA	ACCENTURE
48	B17ME119	MADASI SAI CHANDRA	Infosys
49	B17ME126	MD. FURQAN AHMED	DXC Technologies
50	B17ME126	MD. FURQAN AHMED	Cognizant GenC
51	B17ME132	GUNDA SRIRAM	DXC Technologies
52	B17ME132	GUNDA SRIRAM	TCS Codevita
53	B17ME132	GUNDA SRIRAM	Infosys
54	B17ME132	GUNDA SRIRAM	TCS Digital
55	B17ME133	KACHAVARAPU SAI CHARAN	DXC Technologies
56	B17ME135	PILLALAMARRI PRANATH KUMAR	Cognizant GenC
57	B17ME139	ROHITH BAJJURI	DXC Technologies

58	B17ME141	GOSULA TEJASWI	Cognizant GenC
59	B17ME143	VEMULA RITWIK	DXC Technologies
60	B17ME143	VEMULA RITWIK	Cognizant GenC
61	B17ME143	VEMULA RITWIK	Infosys
62	B17ME144	MOHD SHAMSHEER	DXC Technologies
63	B17ME159	KASALA TEJASWI	Infosys
64	B17ME165	CHILAGANI VISHWA TEJA	Infosys
65	B17ME167	SHILAGANI DIVYA	Infosys
66	B17ME167	SHILAGANI DIVYA	TCS NINJA
67	B18ME185L	CHETLAPALLY SAIKUMAR	Infosys
68	B18ME191L	MERUGU KAVYA	DXC Technologies
69	B18ME213L	DURGANALA THARUNI	DXC Technologies
70	B17ME122	GAMPA SHAINETHA	Hyundai

Details of FDPs/Workshops organized by the Department during 2020-21:

S. No.	Organized STTP/ FDP/ Workshop/ Conference	Title of STTP/ FDP/ Workshop/ Conference	Coordinators	Duration & Dates	No. of participants
1.	FDP	Advanced Materials and Manufacturing	A. Kumar, Professor & Head, Mechanical Engineering, NIT, Warangal	One Week 29 th June-3 rd July, 2020	470
2.	FDP	Recent Developments in Mechanical Engineering (RDME-2020)	Benny Karunakar, Associate Professor, Mechanical Engineering, IIT, Roorkee	One Week 7 th -11 th , July, 2020	555

Conferences attended by the faculty, for presenting research papers, during 2020-21:

S. No	Name of the faculty	Title with page nos.	Details of conference publication
1.	Dr. K. Eswaraiah	Mathematical Modelling In EDM of Aluminium Metal Matrix Composites Using Response Surface Methodology	International Conference On Challenges And Opportunities For Innovation In New Normal Scenario. KSRIET, Tiruchengode, Mamakkal, TN, 3 April 2021
2.	Dr. K. Raja Narender Reddy	Bio-Composites: A Study On Behavior of Oil Palm Mesocarp Fiber Reinforced Kgg IOP Conf. Series: Materials Science And Engineering: P.No:1123 6th-8th January 2020	International conference on Design, Automation and Control (ICDAC 2020), Organized by Department of Design and Automation, School of Mechanical Engineering, Vellore Institute of Technology, Vellore - 632014. ISSN/ISBN No. 17578981, 1757899X doi:10.1088/1757-899X/1123/1/012005
3.	Dr. G. Ganesh Kumar	Experimental And Numerical Studies of A Centrifugal Heart Pump Used For Total Artificial Heart (TAH)	67 th Virtual ASAIO Conference, Washington D. C., USA 10-12 June, 2021 ISBN 1058-2916
4.		Comparative Studies On Six And Four Bladed	67 th Virtual ASAIO Conference, Washington D. C., USA 10-12 June 2021

		Centrifugal Heart Pump Used For Left Ventricular Assisted Device (LVAD)	ISBN 1058-2916
5.		Numerical Analysis On Angle Of Attack On Bow Shock Formation In Aerodynamic Flows Pp 219-229.	5 th International Multi-Disciplinary Research Conference, organized by Osmania University, Hyderabad 26 Dec, 2020 ISBN 978-81-948668-1-7
6.		Investigations On Plug-In Hybrid Electric Vehicle	5 th International Multi-Disciplinary Research Conference organized by Osmania University, Hyderabad 26 Dec, 2020 ISBN 978-81-948668-1-7
7.		Design And Fabrication Of Plug-In Hybrid Electric Motorcycle	6 th International Conference "Shaastrarth - 2020", Rungta College of Engineering & Technology, Bhilai (C.G.), INDIA 19-20 Dec, 2020 Registration ID: SH20-42
8.		Parametric Studies On Bow Shock Formed In Aerodynamic Flows	6 th International Conference "Shaastrarth - 2020", Rungta College of Engineering & Technology, Bhilai (C.G.), INDIA 19-20 Dec, 2020 Registration ID: SH20-53
9.		Performance Of Solar Air Heater With Aluminium Tubes Pg. 323-335.	International Conference on Challenges and Opportunities for innovation in New Normal Scenario KSR Institute for Engineering and Technology, Nammakal, Tamil Nadu 03 March 2021
10.	Dr. P. Prabhakara Rao	Fabrication & Characterization Of Aluminium Composite	Substantial Development in the field of Engineering, Management and Humanities Held at (IEI, Chandigarh) Institution of Engineers, Sector 19A, Chandigarh, India 22 may
11.		Enhancement In Mechanical Properties of Ceramic Reinforced Aluminum MMC Via Stir Casting Methodology: A Review	"ICAAMM-2020", Held at MLR Institute of Technology, Hyderabad, 24th & 25th July 2020
12.	S Chandramouli	Mathematical Modelling In EDM of Aluminium Metal Matrix Composites Using Response Surface Methodology	International Conference on Challenges and Opportunities for Innovation in New Normal Scenario KSR Institute for Engineering and Technology, Tiruchengode, Namakkal , Tamil Nadu, 03rd April 2021
13.	Dr. G. Srinivasa Rao	Numerical Simulation of Free Convection Flow And Heat Transfer In A Porous Channel With Constant Heat Sources With Effect of Nanofluid Prandtl Number And Suction Or Injection	International conference on Advances in Mechanical engineering (ICAME21 Sai Ram Engineering College Chennai, 27 th and 28 th January 2021

		Parameter	
14.		Mixed Convection Heat Transfer Analysis Of Oxide Nano Micropolar Fluid On A Vertical Plate With Prescribed Heat Flux	International conferences on Materials, Mechanical and Energy Engineering Bapatla Engineering college, AP, May 7 th and 8 th 2021
15.		Numerical Study On Free Convection Flow And Heat Transfer In A Porous Channel With Al ₂ O ₃ At Different Concentrations	International conferences on Materials, Mechanical and Energy Engineering Bapatla Engineering college, AP, May 7 th and 8 th 2021
16.	Ch. Karunakar	Investigation Of Flexural And Tensile Properties Of Kenaf And Glass Fiber Reinforced Composites	4 th National Conference on Recent Trends & Innovations in Mechanical Engineering Department of Mechanical Engineering, 24 th & 25 th July, 2020
17.		Mechanical And Morphological Studies Of Cellulose Reinforced Isophthalic Polyester Composites	ICMMEE-2021 at BAPATLA Engineering college, 07-08 May 2021
18.	G. Vinod Kumar	Performance of Solar Air Heater With Aluminum Tubes	International Conference on "Challenges and Opportunities for Innovation in New Normal Scenario", organized by KSR Institute for Engineering and Technology (Affiliated to Anna University) , Chennai in association with International Association of Research and Developed Organization (IARDO) 3 rd April 2021
19.		Thermal And Computational Studies of Loop Heat Pipe Wick	International Conference on "Challenges and Opportunities for Innovation in New Normal Scenario", organised by KSR Institute for Engineering and Technology (Affiliated to Anna University) , Chennai in association with International Association of Research and Developed Organization (IARDO) 3 rd April 2021
20.	S. Ramesh	Effect Of Width of A Serpentine Flow Channel On Pem Fuel Cell Performance	International Conference on Recent Advances in Renewable Energy Sources - RARES- 2021, Engineering College Banswara, Rajasthan, India, 26 -27 February 2021.
21.		Effect Of Channel Dimensions of A Serpentine Flow Field On Performance Of Proton Exchange Membrane Fuel Cell	International Conference on Advances in Science and Technology - ICAST-2021, Institute of Innovations, Tiruvannamalai, Tamilnadu, India, 02 - 03 April 2021
22.	A. Hari Kumar	Development Of Closed-Cell Aluminium Foam Using Space Holder	International Conference on the Empirical Aspects of Advancements in Science, Engineering and Technologies

		Technique And Microstructure Analysis	[ICEAASET - 2021] organised by Cheran College of Engineering, Karur, Tamil Nadu in association with International Association of Research and Development Organization (IARDO), 02nd July 2021
23.	S. Anil Kumar	Experimental Investigation On Di Diesel Engine Using Biodiesel Neem Oil Methyl Ester Blends	4th International e-Conference on Recent Advancement in Mechanical Engineering and Technology - ICRAMET 2021, Department of Mechanical Engineering, AarupadaiVeedu Institute of Technology (AVIT) Kancheepuram District, Tamil Nadu, India, 24 -25 June 2021.
24.		Experimental Investigation On Di Diesel Engine Using Biodiesel Neem Oil Methyl Ester Blends	4th International e-Conference on Recent Advancement in Mechanical Engineering and Technology - ICRAMET 2021, Department of Mechanical Engineering, Aarupadai Veedu Institute of Technology (AVIT) Kancheepuram District, Tamil Nadu, India, 24 -25 June 2021.
25.	K. Kishor Kumar	Compare Thin And Thick-Walled Cylinder Models Subjected To Thermo-Mechanical Loading Pg. No -75. Paper Id : Ncm/2020/Ams/340	1 st National Conference on Materials, Mechanics and Modeling (NCMMM2020), 29-30, August 2020, organized by NIT- Jamshedpur, India.
26.		Mechanical And Morphological Studies of Cellulose Reinforced Isophthalic Polyester Composites	International Conference on Materials, Mechanical and Energy Engineering ICMME 2021, 7-8, May 2021 organized by Bapatla Engineering College, Guntur.
27.	Dr. G Srinu	Design And Fabrication of Hybrid Mini Shooter	International Conference on Materials, Mechanical and Energy Engineering ICMME 2021, 7-8, May 2021 organized by Bapatla Engineering College, Guntur.

Journal Publications by the faculty during 2020-21:

S. No	Name of the faculty	Title	Journal	ISSN/ISBN No.
1.	Dr K. Eswaraiah	Experimental And Numerical Studies of A Centrifugal Pump Used For TAH. Volume67, Pg. 88	ASAO Journal 10-12 June-2021	ISSN: 1058- 2916
2.		Comparative Studies On Six And For Bladed Centrifugal Heart Pump Using Left Ventricular Assisted Device (LVAD). Volume67, Pg. 88	ASAO Journal 10-12 june2021	ISSN: 1058- 2916
3.	Dr .P. Srikanth	Study Of Micro EDM Machining Parameters On Maraging Steel Alloys-A Review"	(Under review) Elsevier Materials Today	

4.	Dr. G. Ganesh Kumar	Investigations on plug-in hybrid electric vehicle	Journal of Information and Computational Science	ISSN: 1548-7741
5.		Numerical analysis on angle of attack on bow shock formation in aerodynamic flows pp. 100-105	Journal of Information and Computational Science	ISSN: 1548-7741
6.		Experimental And Numerical Studies of A Centrifugal Pump Used For TAH. Volume67, Pg. 88	ASAO Journal 10-12 June-2021	ISSN: 1058- 2916
7.		Comparative Studies On Six And For Bladed Centrifugal Heart Pump Using Left Ventricular Assisted Device (LVAD). Volume67, Pg. 88	ASAO Journal 10-12 june2021	ISSN: 1058- 2916
8.	Dr. A Devaraju	Impact on Mechanical properties & Metallographic of Solid state welded 2024 & 7075 Al alloys dissimilar joint by varying its parameters. Pg. 937-941	Materials Today: Proceedings 24 (2020)	ISSN:2214-7853
9.		Effect of Distinct Parameters on the Mechanical Properties of Solid-State Processed AA-2014	International Journal of Mechanical and Production Engineering Research and Development	ISSN (P): 2249-6890; ISSN (E): 2249-8001
10.	Dr. G. Srinivasa Rao	Numerical Analysis of Laminar Free-Convection Fluid Flow and Heat Transfer Over A Vertical Plate with Constant Heat Flux with Thermo Ionic Nanofluid	International Journal for Research in Engineering Application & Management (IJREAM)	ISSN : 2454-9150
11.		Symmetric and asymmetric mixed convection heat transfer through vertical channel with porous medium with different oxide nanofluids . Volume 6, Issue 4	International Journal of Advance Research, Ideas and Innovations in technology (2020).	ISSN: 2454-132X
12.	K. Kishor Kumar	Effect of Temperature on Free Vibration of Functionally Graded Plate with Cut-out. Pg- 29-39. https://doi.org/10.30880/ijie.2021.13.01.004	International Journal of Integrated Engineering	ISSN: 2229-838X.
13.		Effect of Four-Parameter Power Law on Free Vibration of Functionally Graded Skewed Elliptical Shell https://doi.org/10.1063/5.0050040	AIP Conference Proceedings	0094-243X (print) 1551-7616 (web)
14.	M. Anil Kumar	Optimization of process parameters in machining of Nimonic super-alloy on EDM using genetic algorithm. Pg 35-44 Vol-2	Maejo International journal of Energy and	19057873

			Environmental Communication	
15.	Dr. M. D. Sameer	EDM machining characteristics of bamboo leaf ash and alumina reinforced aluminum hybrid metal matrix composite using Multi-response optimization by grey relational analysis	Materials Research Express	Online:2053-1591
16.		Selection of friction stir welding tool rotational speed for joining dual phase DP600 steel sheets - an experimental approach pages 1--26	Journal of Adhesion Science and Technology	Print ISSN: 0169-4243 Online ISSN: 1568-5616
17.		Effect of Tool Tilt Angles on Mechanical and Microstructural Properties of Friction Stir Welding of Dissimilar Dual-Phase 600 Steel and AA6082-T6 Aluminum Alloy	SAE International Journal of Materials and Manufacturing	ISSN: 1946-3979, e-ISSN: 1946-3987
18.	Dr. G. Sai Kumar	Effect of Distinct Parameters on the Mechanical Properties of Solid-State Processed AA-2014	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	ISSN(P):2249-6890; ISSN(E):2249-8001
19.	Dr. G. Srinu	Tensile and flexural characteristics of an epoxy-glass composite reinforced with Cloisite 15A nanoclay. PP.1-11	Iranian Polymer Journal	10261265
20.		Effect of distant parameters on the mechanical properties of solid state processes AA-2014, pp. 5843-5848	International Journal of Mechanical And Production Engineering Research And Development	2249-6890;

Expert Lectures by the faculty:

S. No	Name	Expert Talk on	Organizer	Date
1	Dr. A. Devaraj	Advances in Friction Stir Welding/Processing in one week online FDP on "Emerging Trends in Advanced Materials & Manufacturing Processes"	Kakatiya Institute of Technology and Science Warangal, Telangana	12 - 16 July 2021
2	Dr. U. Srinivas Balraj	"Micro Maching Processes" in One week FDP Program on Advance Materials and Manufacturing	Kakatiya Institute of Technology and Science Warangal, Telangana	29 th June to 3 rd July 2020
3	Dr. K. Raja Narender	AICTE-ISTE Sponsored 6 Days Online Induction Program	Role of Blockchain & Cyber Security in Digital	20 th to 26 th May 2021

	Reddy	On Manufacturing	Manufacturing	
4	Dr. A. Devaraj	“Advances in Fabrication of Surface Hybrid Composites via Friction Stir Processing/Welding” in online FDP on Modelling and Optimization Techniques For Materials and Manufacturing Processes	Lakireddy Bali Reddy College Of Engineering, Mylavaram	18 – 22 May 2020
5	Dr. U. Shrinivas Balraj	‘Micromachining- Challenges and opportunities ’ in online AICTE-ISTE sponsored induction /refresher course on “RECENT TRENDS IN MECHATRONICS” Phase III : 6 th to 12 th May 2021	Kamala Institute of Technology and Science, Huzurabad, Karimnagar	11 th May 2021
6	Dr. P. Prbakara Rao	Delivered a Lecture on the topic “Research trends in composite materials”	Organized by Department of Mechanical Engineering Sri Krishna Devaraya University college of Engineering and Technology, Anantapur For Mechanical Engineering students	05-05-2021
7	Dr. P. Prbakara Rao	Delivered a Lecture on the topic “Heat Treatment of Alloy Steels”	Organized by Department of Mechanical Engineering Vishnu Institute of Technology Bhimavaram. For Mechanical Engineering students and Faculty	24-04-2021
8	Dr. U. Shrinivas Balraj	‘Micromachining-Research opportunities’ in online AICTE-ISTE sponsored induction /refresher course on “RECENT TRENDS IN MECHATRONICS” Phase II : 22 nd to 28 th April 2021	Kamala Institute of Technology and Science, Huzurabad, Karimnagar	23 rd April 2021
9	Dr. P. Prbakara Rao	Delivered a Lecture on the topic “Heat Treatment of Alloy Steels”	Organized by Department of Mechanical Engineering Sri Krishna Devaraya University college of Engineering and Technology, Anantapur For Mechanical Engineering students.	16 April, 2021
10	Dr. U. Shrinivas Balraj	Overview of Micro Machining in online AICTE-ISTE sponsored induction/refresher course on “RECENT TRENDS IN MECHATRONICS” Phase I : 18 th to 24 th March 2021	Kamala Institute of Technology and Science, Huzurabad, Karimnagar	19 th March 2021
11	Dr. P. Srikanth	“CAREER PROGRESSION”	Online National Webinar/ organized by Telangana	05.03.2021

			Social Welfare Residential Degree College, Suryapet	
12	Dr. U. Shrinivas Balraj	“MOOCS” in a One Week Workshop on “E-Content Development”	Bharat Institute of Engineering and Technology (BIET), Hyderabad	24 th Feb to 1 st March 2021
13	Dr .P. Prbakara Rao	Delivered a Lecture on the topic “Some Case Studies on Recent advances in Metal casting processes”	Organized by Department of Mechanical Engineering.(KIET)Kakinada Institute of Engineering Technology For the Third and Final year Mechanical Engineering students.	24-02-2021
14	Dr. K. Raja Narender Reddy	Prana meditation at AICTE sponsored Phase-II Faculty Development Program (FDP)	Hands on project based approach for biomedical signal analysis using MATLAB	12.2.2021
15	Dr.P.Prabakara Rao	Delivered a Lecture on the topic ““Processing composite materials”	Organized by Department of Mechanical Engineering. Kakinada Institute of Engineering Technology (KIET) for the Third and Final year Mechanical Engineering students	05.01.2021
16	Dr. U. Shrinivas Balraj	Thesis Writing in online 2 week FDP on “Research Methodology, Design and Analysis of Experiments for Engineers & Researchers”	R.V.R & J.C. College of Engineering Chandramoulipuram, Chowdawada, Guntur	7-19 December 2020
17	Dr. K. Raja Narender Reddy	AICTE-ISTE refresher program	Effective Teaching Skills for outcome based Engineering Education, SR college	23rd November 2020
18	Dr.P.Prabakara Rao	delivered a Keynote Lecture on the topic “Research trends in composite materials” in the one week online	Organized by Department of Mechanical Engineering. (KIET)Kakinada Institute of Engineering Technology For the Third and Final year Mechanical Engineering students.	24-10-2020
19	Dr.P.Prabakara Rao	delivered a Keynote Lecture on the topic “Solidification simulation of sand casting process” in the one week online	FDP on “LOST FOAM CASTINGS” organized by Department of Mechanical Engineering, SREE Chaitanya College Of Engineering, Karimnagar.	22-07-2020.
20	Dr.P. Srikanth	“Innovative Teaching Strategies in Higher Education”	Online National Conference “Innovation in Higher Education-A Teaching Learning Approach”	13-07-2020 to 18-07-2020

21	Dr. U. Shrinivas Balraj	“Innovation in Higher Education – A Teaching Learning Approach”	Government Degree College, Mahabubabad	15 - 18 July,2020
22	Dr. U. Shrinivas Balraj	“Micro Machining Processes” in One week FDP Program on Advance Materials and Manufacturing	Kakatiya Institute of Technology & Science, Warangal, Telangana	29 th June to 3 rd July 2020

Students Publications in Conference Proceedings/ Publications:

S. No	Name of Student	Title of the Conference paper	Details of conference	Organized by	Dates	National/ International
1.	Mohd Fazeel	Performance of Solar Air Heater With Aluminum Tubes	Challenges and Opportunities for Innovation in New Normal Scenario ISBN: 978-81-948668-3-1 Pg. No. 301-310	KSR Institute for Engineering and Technology (Affiliated to Anna University , Chennai in association with International Association of Research and Developed Organization (IARDO)	03-04-2021	International
2.	Togaru Lavanith	Thermal And Computational Studies of Loop Heat Pipe Wick	Challenges and Opportunities for Innovation in New Normal Scenario ISBN: 978-81-948668-3-1 Pg. No. 323-335	KSR Institute for Engineering and Technology (Affiliated to Anna University) , Chennai in association with International Association of Research and Developed Organization (IARDO)	03-04-2021	International
3.	S. Navaneeth	Mechanical and Morphological Studies of Cellulose Reinforced Isophthalic Polyester Composites	Materials, Mechanical and Energy Engineering (ICMEE-2021) IOP Publishing Conference Series Materials Science and Engineering	Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, Andhra Pradesh	07-05-2021 to 08-05-2021	International
4.	M. Sampath	Design And Fabrication of Hybird Mini Scooter	Materials, Mechanical and Energy Engineering (ICMEE-2021) IOP Publishing	Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, Andhra Pradesh	07-05-2021 to 08-05-2021	International





			Conference Series Materials Science and Engineering			
5.	G. Varun	Design And Fabrication of Hybird Mini Scooter	Materials, Mechanical and Energy Engineering (ICMEE-2021) IOP Publishing Conference Series Materials Science and Engineering	Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, Andhra Pradesh	07-05-2021 to 08-05-2021	International
6.	V Sirisha	Design And Fabrication of Hybird Mini Scooter	Materials, Mechanical and Energy Engineering (ICMEE-2021) IOP Publishing Conference Series Materials Science and Engineering	Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, Andhra Pradesh	07-05-2021 to 08-05-2021	International
7.	A Sai Chandan	Design And Fabrication of Hybird Mini Scooter	Materials, Mechanical and Energy Engineering (ICMEE-2021) IOP Publishing Conference Series Materials Science and Engineering	Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, Andhra Pradesh	07-05-2021 to 08-05-2021	International
8.	M. Akhil	Design And Fabrication of Hybird Mini Scooter	Materials, Mechanical and Energy Engineering (ICMEE-2021) IOP Publishing Conference Series Materials Science and Engineering	Department of Mechanical Engineering, Bapatla Engineering College, Bapatla, Andhra Pradesh	07-05-2021 to 08-05-2021	International
9.	G. Jayasri	Fabrication & Characterization of Aluminium Composite	Substantial Development in the field of Engineering, Management and Humanities ISBN:978-81- 948668-5-5 Pg. No. 126-130	Institution of Engineers, Chandigarh, Sector 19A India	22-05-2021	International
10.	Chitralkha	Design and Fabrication of Automatic Classroom Cleaning Robot	4th International e-Conference on Recent Advancement in Mechanical	Department of Mechanical Engineering, Aarupadai Veedu Institute of	24-06-2021 to 25-06-2021	International

			Engineering & Technology - ICRAMET 2021	Technology (AVIT).		
11.	M. Sravani	Experimental investigation on DI diesel engine using biodiesel neem oil methyl ester blends	4 th International e-Conference on Recent Advancement in Mechanical Engineering & Technology - ICRAMET 2021	Department of Mechanical Engineering, Aarupadai Veedu Institute of Technology (AVIT).	24-06-2021 to 25-06-2021	International
12.	N. Rahul	Experimental investigation on DI diesel engine using biodiesel neem oil methyl ester blends	4 th International e-Conference on Recent Advancement in Mechanical Engineering & Technology - ICRAMET 2021	Department of Mechanical Engineering, Aarupadai Veedu Institute of Technology (AVIT).	24-06-2021 to 25-06-2021	International
13.	N. Sai Chander	Modelling And Analysis Of Spur Gear Assembly By Using Creo and Ansys	Latest Trends in Mechanical Engineering (LTME)-2021	Vignana Bharathi Institute of Technology	03-05-2021 to 04-05-2021	National
14.	Tejaswi Kasala	Comparison of Stress Analysis on Laminated Composite Beams by Varying Materials and Fiber Angle Orientation	Latest Trends in Mechanical Engineering (LTME)-2021	Vignana Bharathi Institute of Technology	03-05-2021 to 04-05-2021	National
15.	Vishwa Teja Chilagani	Comparison of Stress Analysis on Laminated Composite Beams by Varying Materials and Fiber Angle Orientation	Latest Trends in Mechanical Engineering (LTME)-2021	Vignana Bharathi Institute of Technology	03-05-2021 to 04-05-2021	National
16.	G. Siddarth Reddy	Design And Simulation of Shell Structures	Latest Trends in Mechanical Engineering (LTME)-2021	Vignana Bharathi Institute of Technology	03-05-2021 to 04-05-2021	National
17.	T. Nimish	Design And Simulation of Shell Structures	Latest Trends in Mechanical Engineering (LTME)-2021	Vignana Bharathi Institute of Technology	03-05-2021 to 04-05-2021	National


Faculty Awards/Achievements during 2020-21:

Sl. No.	Name of the Faculty	Award	Year	Details
1	Sri S. Chandramouli, Asst. Professor, MED	Certificate of Appreciation received from NPTEL	2020	Recognition of role as mentor for the NPTEL online certification course, Mathematical modeling of Manufacturing Process, September-December, 2020, IIT, Guwahati
2		Certificate of Appreciation	2020	Being recognized as a motivated learner, December 2020.
3		Certificate of Appreciation	2020	Being recognized as NPTEL Discipline star, December 2020
4	Sri S. Anil Kumar Asst. Professor, MED	Certificate of Appreciation received from NPTEL	2020	Recognition of role as mentor for the NPTEL online certification course, Advanced Fluid mechanics, January-December, 2020, IIT, Madras.

Even Semester-Wise Academic Toppers during the Academic Year 2019-20:

B. Tech (Mechanical Engineering)							
S.No.	Batch	Sem.	Hall Ticket No.	Academic Topper	Photo	SGPA	Rank
1	2016-20	VIII	B16ME039	SUNKARI PRADEEP		9.70	1
2	2017-21	VI	B17ME025	SAMUDRALA KOUSALYA		9.86	1
3	2018-22	IV	B19ME190L	ARIMADLA SRAVAN		9.70	1
4	2019-23	II	B19ME074	THOTA DINESH		10.00	1

Overall Academic B. Tech - Mechanical Engineering Topper during the Academic Year 2019-20:

B. Tech (Mechanical Engineering)							
S.No.	Batch	Sem.	Hall Ticket No.	Academic Topper	Photo	SGPA	Rank
1	2016-20	VIII	B16ME039	SUNKARI PRADEEP		9.70	1

