



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

MAGAZINE

JULY 2020

THE PRO-DIGY

Faculty Editorial Team :

Dr. K. Sridhar, Prof. & Head MED
Dr. K. Eswaraiyah, Prof. MED
Sri. G. Vinod Kumar, Asst. Prof MED
Sri. S. Anil Kumar, Asst. Prof MED

Student Editorial Team :

K. Karthik Iyer (IV/IV MECH I)
K. Akhil Raja (III/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 2020", 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)



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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

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15
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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 two 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 four times by NBA.

Department has a total of 41 qualified, experienced and committed senior faculty and 14 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 EDGECAM. 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 12 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

- 2019 : Organized One Week STTP on Hands on Programme on Ansys Software (HPAS-18)
- : 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 day National Level Students Technical Symposium (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.

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)

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)

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)

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.

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.)
	Prof. R. Ravinder Rao Professor & I/C Alumni Affairs M.Tech (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)
	Sri J. Laxman Assistant Professor M. Tech. (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 PGTD (Tool Design)
	Dr. MD. Sameer Assistant Professor Ph.D (Mechanical Engg.)		Dr. Abhay B Lingayat Assistant Professor Ph. D (Thermal Engineering)
	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. A. Keertichandra, Assistant Professor M. Tech. (Design Engg.)		Ms. G. Sumithra Assistant Professor M. Tech. (Design Engg.)
	Sri V. Pradeep, Assistant Professor M. Tech. (Design Engg.)		Sri P. Rajesh, Assistant Professor M. Tech. (Design Engg.)


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. G. Saroja Data Entry Operator (B.Com)		


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.

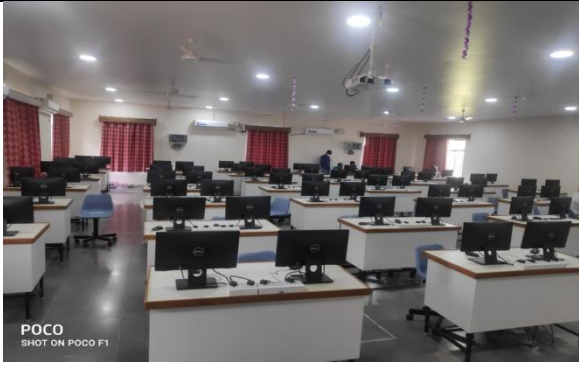

S. No.	Name of the Laboratory	Name of the important equipment	Labs at Glance
1	MCAD LAB	<ol style="list-style-type: none"> 1. P-4 Server 2. P-4 Workstations 3. 10 KVA Scan Power Ups 4. Networking Hubs 5. Softwares 	

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	INDO-AMERICAN ARTIFICIAL HEART PUMP (IAAHP)	<ol style="list-style-type: none"> 1. Work Station 2. 3D Printer 	



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 2019-20. 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	4M1	N. Karthik (B16ME007)
2.	General Secretary	4M1	A. Sri Vardhan Kaushik (B16ME050)
		4M1	T. Lavanith (B16ME031)
		4M2	S. Akhilesh (B16ME073)
3.	Joint Secretary	3M1	E. Sreeja Rao (B17ME006)
		3M2	K. Akhil Raja (B17ME061)
		3M3	G. Sriram (B17ME132)
4.	Public Relations In-charge	4M1	P. Gopi Chander (B16ME008)
		3M1	T. Akash Reddy (B17ME008)
		3M2	MD. Assad Ullah Sharif (B17ME065)
5.	Treasurer	4M1	K. Sony (B16ME009)
		3M3	K. Sai charan (B17ME133)
6.	Executive Members	4M1	S. Pradeep (B16ME039)
		4M1	P. Kalyan (B17ME123L)
		4M2	M. Sampath (B16ME088)
		3M1	MD. Akbaruddin (B17ME005)
		3M1	S. Kousalya (B17ME025)
		3M1	R. Chandrahaas Sharma (B17ME036)
		3M2	K. Sri Vathsav (B17ME092)
		3M2	V. Sindhuja (B17ME095)
		3M2	Fouzia Tabassum (B17ME103)
		3M2	Asia Thabassum (B17ME106)
		3M3	G. Tejaswi (B17ME141)
		3M3	G. Sougandh (B18ME215L)
		3M3	G. Jyothi (B18ME217L)
		2M1	A. Gowtham (B18ME042)
		2M1	Ch. Manohar Reddy (B18ME004)
		2M2	D. Sathvik Reddy (B18ME066)
		2M2	B. Naveen (B18ME074)
2M3	M. Kalyan (B18ME121)		
2M3	K. Santhosh (B18ME177)		

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 2019-2020.

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.

An hour i.e. from 12.10 pm to 1.00pm on every Tuesday is completely devoted to MESA activity with the information properly disseminated to every corner of student community prior to the event.

S. No	Date of the event	Name of the event	No. of students participated
1.	30-07-2019	Inaugural Session of MESA Body	184
2.	06-08-2019	Options after B. Tech- Schedules and Strategies	83
3.	13-08-2019	Current Trends in Automobile Engineering	61
4.	20-08-2019	Live Demonstration of Formula Student Vehicle	72
5.	01-10-2019	Bio Printing	80
6.	24-10-2019 & 25-10-2019	Technical Workshop on "Spacecraft Design"	107
7.	07-01-2020	Importance of modeling and Analyses using Software	52
8.	20-01-2020	Foreign Education and How to Approach it	63
9.	28-01-2020	Emerging fuels in Automobile: Alternative Fuels	48
10.	04-02-2020	Employability after Engineering	21
11.	11-02-2020	Interaction on Internships	22
12.	03-03-2020	Hydrogen: Fuel of Future	36
13.	10-03-2019	Smart Mechanical Systems	52

Mechanical Engineering Students' Association actively planned and organized several above mentioned activities to make students enthusiastic in learning other things apart from the curriculum. Main motto of the association is to develop the students in the path of technical and also improvement in the communicational skills. We organized few expert lectures to expose the students of Mechanical engineering to new methodology adopted.

MESA INAGURAL CEREMONY 2019



Faculty and Students in the inaugural session of MESA 2019-20 on 30 July, 2019

Professional Activities

S. No	Name of the Event	Organized Under	Resource Person/Judges	Date(s)	No. of participants
1.	Spacecraft Design	Jointly organized ISTE and MESA KITS WARANGAL	Sri Sunny Kabrawala, CEO, Star Lab Surat	24-25 October, 2019	107
2.	Technical Paper Presentations	Jointly organized ISTE and MESA KITS WARANGAL	Sri. P. S. S. Murthy Sri. MD Sameer Sri Abhay B. Lingayat- Smt. P. Anitha	26 October, 2019	28 (17 ISTE + 11 others)
3.	Sand Cruiser	Jointly organized ISTE and MESA KITS WARANGAL	Sri. J. Laxman Sri A. Hari Kumar Sri. S. Sripathy Ms. P.Divya Sri P. Rajesh	26 October, 2019	35
4.	Royal Rumble	Jointly organized ISTE and MESA KITS WARANGAL	Sri. S. Chandramouli Sri K. Kishor Kumar Sri. B. Ravi kumar Sri. V. Rakesh Sri V. Rajesh	26 October, 2019	34
5.	Khel Kabaddi	Jointly organized ISTE and MESA KITS WARANGAL	Dr. G. Srinivasa Rao Sri G. Srinu Sri. P. Anil Kumar Sri P. Sreedhar Dr. E. Ramesh	26 October, 2019	21

6.	Udaan	Jointly organized ISTE and MESA KITS WARANGAL	Sri Ch. Karunakar Dr. G. Sai Kumar Sri V. Prasanna Ms. V. Laxmi Priyanka Ms. A.Keerthi Chandra	26 October, 2019	36
7.	Mech Master	Jointly organized ISTE and MESA KITS WARANGAL	Sri. S. Ramesh Sri V. Srikanth Sri D. Sammaiah Ms. G. Sumitra Sri V. Pradeep	26 October, 2019	23

SPACECRAFT DESIGN- WORKSHOP

Pre symposium workshop on Spacecraft Design was organized by Department of Mechanical Engineering in association with ISTE-KITSW chapter during 24 - 25 October, 2019. Mr. Sunny Kabrawala, CEO, Star Lab Surat was the resource person for this program. A total of 107 students attended the workshop.

Mr. Sunny Kabrawala along with his team has delivered a lecture to students on Spacecraft its design & its applications. At the end of the workshop, certificates were given to all the registered participants.



Inaugural session of Spacecraft Design workshop on 24 October, 2019



During workshop session interaction to the students by Mr. Sunny Kabrawala, CEO, Star Lab Surat



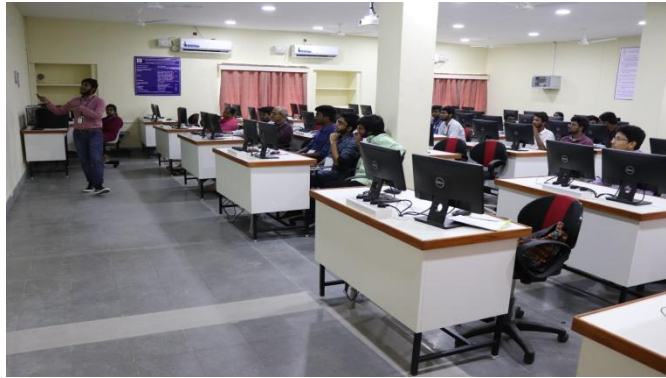
Space Craft Launch as a part of Pre symposium workshop on Spacecraft Design on 25 October, 2019 at Play fields KITSW

The following events were conducted as a part of National Technical Level Fest Symposium Sumshodhini 19 organized by the Mechanical Engineering Student Association (MESA) and ISTE Student Chapter, KITSW during 26 October, 2019.

- | | |
|---------------------------------|-----------------|
| 1) Technical Paper Presentation | 4) Khel Kabaddi |
| 2) Sand Cruiser | 5) Udaan |
| 3) Royal Rumble | 6) Mech Master |

Technical Paper Presentations:

Two Eight students were participated during this event. At the end of the event, certificates and prizes given to all the registered participants.



Sand Cruiser:

Thirty Five students were participated during this event. At the end of the event, certificates and prizes given to all the registered participants.



Royal Rumble:

Thirty Four students were participated for this event. At the end of the event, certificates and prizes given to all the registered participants.



Khel Kabaddi:

Two One students were participated during this event. At the end of the event, certificates and prizes given to all the registered participants.



Udaan:

Thirty Six students were participated during this event. At the end of the event, certificates and prizes given to all the registered participants.



Mech Master:

Twenty Three students were participated during this event. At the end of the event, certificates and prizes given to all the registered participants.



SAE INDIA ACTIVITIES

DEPARTMENT OF MECHANICAL ENGINEERING

Faculty Incharges:

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

Events attended by our team during Academic year 2019-2020

1. Our college team FORCE RACING participated in SUPRA-2019 during 15th to 20th July -2019 held at BIC-NOIDA.
2. Our team FORCE RACING participated in FFS-FMAE 2019 SEASON 3 during 28th Sep. to 3rd October 2019 held at Kari Motors Speed Way-Coimbatore- Tamilnadu. Secured 8th position and won the runner up prize in business plan event.



3. Our team FORCE RACING participated in FORMULA BHARATH-2020, during 20th to 26th January, 2020 held at Kari Motors Speed Way-Coimbatore- Tamilnadu.
4. Our team FORCE RACING participated in NEKC'2020 during 1st to 5th March, 2020 held at National Institute of Design (NID) - Bhopal. Team has secured first prize in the category of **Light Weight EKART** and a cash prize of Rs.5000/-



**A One Week ISTE &Adroitec sponsored
Faculty Development Program (FDP) on
DISRUPTIVE TECHNOLOGIES IN DIGITAL MANUFACTURING (DTM-19)
25- 29 NOVEMBER, 2019**

DEPARTMENT OF MECHANICAL ENGINEERING

A One Week Faculty Development Program on “*DISRUPTIVE TECHNOLOGIES IN DIGITAL MANUFACTURING (DTM-19)*” was organized from 25-29 NOVEMBER, 2019 in the Department of Mechanical Engineering. A total of **Four** resource persons have delivered lectures on various topics related to Disruptive Technologies in Digital Manufacturing. Sixty Four (64) members have registered for the program.

Mr. Kishore Kotta, Senior Application Engineer, Adroitec Engineering Solutions, Hyderabad, was the chief Guest for Inaugural Function. Dr. K. Ashoka Reddy, Principal, KITSW, has presided over the function. Sri .K. Kishore has 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 appreciated the team DTM-19 for organizing this event. He elaborated that, the program will provide a vast exposure to the latest modeling, analysis and latest manufacturing techniques in industry to participants. Dr. K. V. Raghu Babu, ISTE Chairman has briefed about the role of mechanical engineer for society Dr. K. Sridhar, Professor & Head, has acted as a Chairman of the event, Dr. K. Eswaraiah, Professor, MED, was a organizing secretary of the programme. Dr. G. Ganesh Kumar, Associate Professor, MED, Sri. S. Ramesh, Assistant Professor, MED, KITSW acted as Conveners. Ms. G. Sumithra, Assistant Professor, MED and Sri. P. Rajesh, Assistant Professor, MED, are the coordinators for the programme. Dr. K. Raja Narendra Reddy, Professor, MED, Prof. R. Ravinder Rao, Professor, MED, Dr. P. Srikanth, Professor, MED, Dr. U. ShrinivasBalraj, Professor, MED, Dr. K. VenuMadhav, Head, EIED , Dr. A. Madhukar Rao, Assistant Professor, EEED are advisory committee members of the programme

Dr. G. Ganesh Kumar has given a brief introduction about Faculty Development programme on DTM-19 and discussed about the resource persons from various industries while Sri. S. Ramesh, has advocated the details of the participants from various institutes.



Inaugural Function of one week Faculty Development Program (FDP) on Disruptive Technologies in Digital Manufacturing 25 November 2019.



Mr. Kishore Kotta, Adroitec Engineering Solutions, Hyderabad delivering on fundamental principles of modelling in CREO Software 25 November 2019.



3D Printed Components

Faculty Awards/Achievements during 2019-20:

Sl. No.	Name of the Faculty	Award	Year	Details
1.	Dr. K. Sridhar, Professor & Head	Certificate of Appreciation received from NPTEL	2020	Recognition of role as mentor for the NPTEL online certification course, NBA Accreditation and teaching-learning in Engineering (NATE), January-April, 2020, 12 week course, IISC, Bangalore.

Faculty visits to Industries during 2019-20:

S. No.	Name of the faculty	Visited Industry & location	Dates	Details including purpose
1.	Dr. K. Sridhar	1. International Industrial Products, Hyderabad	12.07.2019	MoU Signed
2.	Prof. R. Ravinder Rao	2. Vasantha Tool Crafts Pvt. Ltd., Hyderabad		
3.	Sri S. Ramesh	3. Intra Industrial Technologies, Hyderabad		
4.	Sri S. Anil Kumar	4. Amritha Tool Crafts Pvt. Ltd., Hyderabad		
5.	Dr. K. Sridhar	Hindustan Machine Tools, Hyderabad	09.11.2019	MoU Signed
6.	Prof. R. Ravinder Rao			
1.	Dr. K. Sridhar	1. Hindustan Machine Tools, Hyderabad	23.11.2019	Industrial Visit and MoU Signed with AEPL
2.	Dr. U. Shrinivas Balraj			
3.	Dr. G. Ganesh Kumar			
4.	Dr. P. Prabhakara Rao			
5.	Dr. A. Deva Raju			
6.	Sri P.S.S. Murthy			
7.	Sri J. Laxman			
8.	Sri S. Chandramouli			
9.	Dr. G. Srinivasa Rao			
10.	Sri Ch. Karunakar			
11.	Sri S. Ramesh			
12.	Sri A. Hari Kumar			
13.	Sri S. Anil Kumar			
14.	Sri K. Kishor Kumar			
15.	Dr. G. Sai Kumar			
16.	Ms. P. Divya			
17.	Sri V. Rakesh			
18.	Ms. G. Sumithra			
19.	Sri V. Pradeep			

Projects completed by Final Year Students during 2019-20

MECHANICAL ENGINEERING - I

S No.	Batch	Roll No	Name Of The Student	Name Of The Supervisor	Project Title
1	1	B16ME003	Vallem Harshith Reddy	Dr. G. Ganesh Kumar	Pneumatic powered vehicle
2		B16ME015	Faizan Ahmed Qurashi		
3		B16ME016	Kallepally Rishik Kumar		
4		B16ME039	Sunkari Pradeep		
5	2	B16ME052	Nagavelli Hemanth Kumar	Dr. V. Devraj / Ms. V. Laxmi Priyanka	360-degree rotating vehicle
6		B16ME044	Bourishetti Preetham		
7		B16ME009	Kathi Soni		
8		B16ME038	Muppalla Siddartha		
9	3	B16ME006	N.Manswini	Dr. P. Prabhakara Rao	Casting of topologically optimized component using 3d printed pattern
10		B16ME049	Kothapalli Alekya		
11		B16ME046	Gardas Pavan Kumar		
12		B16ME014	Mohammed Asad Ahmed		
13	4	B16ME020	Vennela Bhanoth	Sri Ch. Karunakar	Development and characterization of sisal fiber cellulose reinforced composites
14		B16ME021	Yadhandla Mahesh		
15		B16ME025	Balaboina Prashanth Kumar		
16		B16ME057	Kakkerla Karthik		
		B16ME0	P. Dileep Kumar		
17	5	B16ME007	Naganathan Karthik	Sri. S. Sripathy	Design and fabrication of water-powered model rocket
18		B16ME054	Palaparathi Roshan Ronald		
19		B16ME002	Mohd Afroz Parvez		
20		B16ME019	Achanta Druva Teja		
21	6	B16ME051	Gurrapu Prathibha	Prof. R. Ravinder Rao	Fabrication of Electro Magnetic Braking System for an Automobile
22		B16ME023	Sandaragiri Ramya		
23		B16ME060	Yakub Pasha Md		
24		B16ME043	Thakur Jashwanth Singh		
25	7	B16ME055	Thalakoti Sudheer	Sri. G. Vinod Kumar	Design and fabrication of flexible manipulator
26		B16ME053	Kota Vivek Joshi		
27		B16ME022	Ananthula Shiva Prasad		
28		B16ME058	Bolakonda Alekya		
29	8	B16ME010	Bojja Rajeev Rao	Sri. S. Ramesh	Thermal storage system - packed bed
30		B17ME121L	Bheemanatini Pavan		
31		B17ME126L	Nerella Harish		
32		B17ME128L	Jella Saikumar		
33	9	B16ME031	Togaru Lavanith	Sri .P. Anil Kumar	Design and fabrication of planetary rover
34		B16ME032	M. Rohith Goud		
35		B16ME033	Varikoti Sai Varun Raj		
36		B16ME029	Chamarty Sudarshana Sastry		
37	10	B16ME030	Amgoth Rajendar	Dr. K. Raja	Optimization of hyper

38		B16ME037	Sudula Shyam Prasad	Narendar Reddy	loop design
39		B16ME047	Kalakota Raviteja		
40		B16ME048	Mohd Farazuddin		
	11	B16ME041	Mahammed Ameeruddin Arbaz	Ms. A. Keerthichandra	Experimental investigation & optimization of EDM parameters on composite material
42		B16ME045	Mukka Sathwik		
43		B16ME042	Kandhukuri Vineeth		
44		B17ME132L	Kalwala Ashish		
45	12	B16ME050	Astakala Sri Vardhan Kaushik	Sri. K. Kishor Kumar	Parametric optimization of a cardiovascular stent design
46		B16ME008	Pendra Gopichander		
47		B16ME024	Shanigram Sneha		
48		B17ME131L	Ponnamaneni Madhavi		
49		B15ME048	B. Koushik Yadav		
50	13	B16ME001	Parwatha Sai Manikanta Teja	Sri .J. Laxman	Optimization of EDM process parameters on titanium super alloy
51		B16ME004	K.Sai Vishnu Vardhan Reddy		
52		B17ME122L	Bairi Sai Teja		
53		B17ME124L	Jaligapu Sai Kumar		
54		B16ME016	Nalla Bothula Hima Teja		
55	14	B16ME011	Banoth Kalyani	Dr. G .Srinivas Rao	Numerical and experimental analysis of temperature distribution and efficiency of different material fin profiles
56		B16ME013	Dasari Sai Nithish		
57		B16ME059	Lunavath Chanti		
58		B17ME125L	Arepally Shireesh Kumar		
59	15	B16ME012	Akula Akshay	Sri. S. Anil Kumar	Experimental studies on energy and exergy analysis of a single pass solar air heater
60		B17ME123L	Pooja Kalyan		
61		B17ME127L	Shaik Imran		
62		B17ME129L	Narlagiri Naveen Kumar		
63	16	B16ME026	Thakur Yash Singh	Sri. Abhay Lingayat	Experimental and numerical investigations of heat transfer behavior of air flow in solar air collector and performance analysis
64		B16ME036	Rudrangi Sravya		
65		B16ME056	B.Manasa		
66		B17ME130L	Zeenath Khatoon		
67	17	B16ME027	Kethipelli Premendar	Sri. V. Rakesh	Intelligent breaking system
68		B16ME028	Peetla Sravan		
69		B16ME034	Kasarla Thirupathi		
70		B16ME035	Hechu Sagar		

MECHANICAL ENGINEERING - II

S.N O	BATCH	ROLL NO	NAME OF THE STUDENT	NAME OF THE SUPERVISOR	PROJECT TITLE
1	1	B16ME112	G. NAGAMANI	Sri. MD. SAMEER/ V. RAJESH	EFFECT OF TOOL PIN GEOMETRY ON FRICTION STIR WELDED ALUMINIUM ALLOYS
2		B16ME063	A. NAVEENA		
3		B16ME094	G. MURALI		
4		B17ME141L	D. ABHISHEK		
5	2	B16ME113	R. BHOOMIKA	Dr. U. SHRINIVAS BALARAJ	TRIBOLOGICAL STUDY ON ALUMINIUM BASED METAL MATRIX COMPOSITES
6		B17ME134L	K. SAI KRISHNA		
7		B16ME093	MD. SAJID		
8		B16ME116	MD. ABDUL RAHMAN		
9	3	B16ME069	T. HARINI	Sri. V. PRASANNA	IMPROVED AIRBAG SYSTEM WITH PNEUMATIC BRAKING
10		B16ME070	K. VAMSHI		
11		B17ME138L	K. PRIYA		
12		B16ME068	B. VASANTH		
13	4	B16ME102	D. RESHMA	Sri. S. CHANDRAMOULI	PREDICTION AND OPTIMIZATION OF EDM PROCESS PARAMETERS USING REGRESSION ANALYSIS AND TAGUCHI METHOD
14		B16ME101	P. BHANU PRASAD		
15		B16ME066	B. HARSHA SREE		
16		B16ME114	B. ROHITH		
17	5	B16ME099	R. YASWANTH	Sri. D. SAMMAIAH	DESGN AND DEVELOPMENT OF AMPHIBIOUS ROBOT WITH METAL DETECTOR
18		B16ME117	SK. FEROUZ		
19		B16ME081	G. PRUDHVI		
20		B16ME083	K. VISHNU		
21.		B16ME079	K. YASWANTH		
22	6	B16ME062	T. SUMASRI	Sri. P. SREEDHAR	CHARACTERIZATI ON OF ALUMINIUM ALLOY OVER MILD STEEL BY FRICTION SURFACING
23		B17ME133L	D. SAI SPANDANA		
24		B16ME084	B. SRIKANTH		
25		B16ME085	MD. SAZEED		
26	7	B16ME089	H. SREE SPANDAN REDDY	Sri. B. RAVI KUMAR	DESIGN AND FABRICATION OF MULTIWAY ROBO- CAR WITH A GUN
27		B16ME118	G. LAXMI PRASANNA		
28		B17ME144L	R. SANDEEP		
29	8	B16ME111	B. SAHITHI	Dr. P. SRIKANTH	OPTIMIZATION OF MICRO-EDM PARAMETERS FOR ALUMINIUM METAL MATRIX COMPOSITE USING TAGUCHI METHOD
30		B16ME064	P. SRAVYA		
31		B16ME074	S. BINDU BHARGAI		
32	9	B16ME088	M. SAMPATH	Sri. G. SRINU/ Ms. G. SUMITHRA	DESIGN AND FABRICATION OF HYBRID MINI SCOOTER
33		B17ME135L	V. SHIRISHA		
34		B16ME086	G. VARUN		
35		B16ME072	A. SAI CHAANDAN		

36	10	B16ME073	S. AKHILESH	Dr. K. ESWARAI AH	DESIGN AND FABRICATION OF SMART ROBOTIC HAND FOR INDUSTRIAL APPLICATIONS
37		B16ME065	R. SAI KRISHNA		
38		B16ME076	P. LIKITH		
39	11	B16ME090	P. NIKHIL CHAKRAVARTHY	Sri. P.S.S. MRUTHY	DESIGN AND DEVELOPMENT OF SPATIAL SLIDER CRANK MECHANISM
40		B16ME061	P. VISHAL		
41		B16ME087	M. VAMSHI		
42		B17ME139L	SAI SHARATH		
43	12	B16ME098	B. AKHIL SAI	Sri. S. ANIL KUMAR	EXERGETIC ANALYSIS OF DUCT TYPE SOLAR AIR HEATER
44		B17ME136L	K. VIJAY		
45		B16ME082	D. SAI NIKHIL		
46		B17ME140L	B. DEEPTHI		
47	13	B16ME108	G. SAI KIRAN	Sri. A. HARI KUMAR	DESIGN AND FABRICATION OF DUAL SIDE SHAPER MACHINE
48		B16ME115	K. SAI NITHIN		
49		B16ME080	M. SHIVA KUMAR		
50		B16ME107	G. HARSHA		
51		B15ME089	K. SAIDEEP		
52	14	B16ME104	S. ADHITYA	Mrs. P. ANITHA	FABRICATION OF WIND POWER CAR MECHANISM
53		B16ME092	G. PAVAN		
54		B16ME103	K. HRUSHIKESH		
55		B16ME110	V. VAMSHI		
56		B15ME061	N. SAI RAM		
57	15	B16ME119	V. PRANITHA	Dr. G. SAI KUMAR/ Ms. P. DIVYA	DESIGN AND FABRICATION OF PELTIER MODULE AIR CONDITIONER
58		B16ME067	B. ACHYUTH		
59		B16ME071	M. AKHIL		
60		B16ME075	CH. NIHAL REDDY		
61	16	B16ME097	V. BANSILAL	Sri. V. SRIKANTH	MECHANICAL CHARACTERISATION OF NATURAL FIBERS REINFORCEMENT WITH KONDAGOGU BIOCOMPOSITE
62		B16ME095	M. SAI RAM		
63		B16ME096	CH. ABHINAV		
64		B17ME143L	M. PRASHANTH		
65	17	B16ME109	S. VAMSHI KRISHNA	Dr. K. SRIDHAR	FABRICATION AND PERFORMANCE ANALYSIS OF COMPRESSED AIR ENGINE
66		B17ME142L	K. YESU		
67		B17ME137L	B. ANITHA		
68		B15ME070	N. SAI RAJIV		

Placement Details for Academic year 2019-20

S. No.	Name of the student	Roll Number	Name of the company
1.	Pendra Gopichander	B16ME008	BYJU'S
2.	Kethipelli Premendar	B16ME027	Cognizant
3.	Mohd Faraz Uddin	B16ME048	Cognizant
4.	Astakala Srivardhan Kaushik	B16ME050	Cognizant
5.	G. Pavan Kumar	B16ME046	Cyient
6.	Gurrapu Prathibha	B16ME051	Infosys
7.	Thalakoti Sudheer	B16ME055	Infosys
8.	Sirivolu Akhilesh	B16ME073	Invento Robotics
9.	M. Sai Sharath	B17ME139L	Just Dial
10.	Mohd Faraz Uddin	B16ME048	Neudesic
11.	Sandaragiri Ramya	B16ME023	Prathiraj Metal Masters Pvt. Ltd
12.	Rudrangi Sravya	B16ME036	Prathiraj Metal Masters Pvt. Ltd
13.	Kothapalli Alekya	B16ME049	Prathiraj Metal Masters Pvt. Ltd
14.	B.Manasa	B16ME056	Prathiraj Metal Masters Pvt. Ltd
15.	Harini	B16ME069	Prathiraj Metal Masters Pvt. Ltd
16.	Bathini Sahithi	B16ME111	Prathiraj Metal Masters Pvt. Ltd
17.	Gowrisetti Nagamani	B16ME112	Prathiraj Metal Masters Pvt. Ltd
18.	Vangala Pranitha	B16ME119	Prathiraj Metal Masters Pvt. Ltd
19.	Achanta Druva Teja	B16ME019	Raam Group
20.	Kothapalli Alekya	B16ME049	Raam Group
21.	Madugula Akhil	B16ME071	Raam Group
22.	Mogili Sampath	B16ME088	Raam Group
23.	Pendra Gopichander	B16ME008	Razen Motors Pvt. Ltd.
24.	Ch. Sudarsana Sastry	B16ME029	TCS Ninja
25.	Bolakonda Alekya	B16ME058	TCS Ninja
26.	Hemalla Sreespandan Reddy	B16ME089	TCS Ninja
27.	Kalwala Ashish	B17ME132L	TCS Ninja
28.	Madugula Akhil	B16ME071	XL Dynamics

Details of FDPs/ Workshops organized by the Department during 2019-20:

S. No.	Organized STTP/ FDP/ Workshop/ Conference	Title of STTP/ FDP/ Workshop/ Conference	Coordinators	Duration & Dates	No. of participants
1.	Workshop	Spacecraft Design	Sri G. Vinod Kumar Sri S. Anil Kumar	Two days 24-25 October, 2019	107
2.	FDP	Disruptive Technologies in Digital Manufacturing	Dr. G. Ganesh Kumar Sri S. Ramesh	One Week 25-29 November, 2019	65

Conferences attended by the faculty, for presenting research papers, during 2019-20:

S. No	Name of the faculty	Title with page nos.	Details of conference publication
1.	Dr. K. Sridhar	Simulation studies on effect of angle of attack on bow shock formation in aerodynamic flows Pg No. 32-36	International conference on Advances in Renowned Renewable energy Technologies (ICARRET-2019), 23-24 October, 2019 ISBN No. 978-81-934288-1-8.
2.		Design, simulation, analysis of a 3 vane small scale wind	International conference on Advances in Renowned Renewable energy

		turbine Pg No. 53-57	Technologies (ICARRET-2019),23-24 October, 2019 ISBN No. 978-81-934288-1-8.
3.		Simulation studies on conjugate mixed convection perforated fins pp. 79-86.	XVII International conference on Recent Trends in Engineering, Science and Management (ICRTE SM-19), 28.07.2019, Pune
4.		Exhaust heat recovery from CI engines for power generation Pg No. 250-256	XVII International conference on Recent Trends in Engineering, Science and Management (ICRTE SM-19), 28.07.2019, Pune
5.		Exergy Analysis of an integrated solar flat plate collector with packed bed system, Pg. No. 64	International conference on Advances in Renowned Renewable energy Technologies (ICARRET-2019), 23-24 October, 2019
6.	Dr. K. Raja Narender Reddy	Characterization of Mechanical Properties In Palmyra-Kgg Bio- Composites	International conference on Advances in Minerals, Metals, Materials, Manufacturing and Modelling (ICAM5 -2019), Sponsored by TEQIP III, organized by department if metallurgical and materials engineering, National Institute of Technology, Warangal- 506004, Telangana State 25 -27 September, 2019
7.		Bio-Composites: A Study On Behavior of Oil Palm Mesocarp Fiber Reinforced Kgg	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. 6-8 January 2020
8.		Study on view properties of tamarindus indica fibre reinforced thermoplastic polymer composites.	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 - 632014.6-8 January 2020
9.	Dr. P. Srikanth	Study of Micro EDM machining Parameters on maraging steel alloys- A review	International conference on Advances in Minerals, Metals, Materials Manufacturing and Modelling, 25-27 Sep 2019, NIT Warangal
10.	Dr. G. Ganesh Kumar	Simulation Studies on Effect of Angle of Attack on Bow Shock Formation in Aerodynamic Flows pp.32	International Conference on Advances in Renowned Renewable Energy Technologies(ICARRET) 23 & 24 October, 2019 (ICARRET-2019)
11.		Design, simulation and analysis of a three vane small scale wind turbine pp. 53	International Conference on Advances in Renowned Renewable Energy Technologies(ICARRET) 23 & 24 October, 2019 (ICARRET-2019)
12.		Simulation Studies on Conjugate Mixed Convection Perforated Fins, Pp.79-86	XVII International Conference on recent trends in Engineering, Science and Management (ICRTE SM-19)
13.		Exhaust heat recovery from compression ignition engines for power generation pp. 250- 256	XVII International Conference on recent trends in Engineering, Science and Management (ICRTE SM-19)
14.		Parametric studies on combined	International Conference on New

		conduction and convection heat transfer in perforated fins,"	Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-19)
15.	Dr. P. Prabhakara Rao	Experimental study of drilling process parameters on aluminium metal matrix composites	(ICITEASM-201 held at Osmania University Campus, Hyderabad) 24 June 2018
16.	G. Vinod Kumar	Exergy Analysis Of An Integrated Solar Flat Plate Collector With Packed Bed System	International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET 2019) Organised by Dept. Of Mechanical Engineering, Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada On 23rd-24 th OCTOBER- 2019
17.	S. Ramesh	Design and NVH Analysis of Disc Brake System	Fourth International Conference on Mechanical, Automotive and Aerospace Engineering Jan 24-25, 2020
18.	A. Hari Kumar	Design and NVH Analysis of Disc Brake System	Fourth International Conference on Mechanical, Automotive and Aerospace Engineering Jan 24-25, 2020
19.	S. Anil Kumar	Overall Heat Loss Coefficient of a Solar Air Heater With And Without Absorption Coating	International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET 2019) 23-24 OCTOBER- 2019
20.	K. Kishor Kumar	Additive Manufacturing Technology and its Implementation in Construction as an Eco-Innovative solution	International Conference on Advances in Minerals, Metals, Materials, Manufacturing and Modelling(ICAM ⁵ -2019) Organised by Dept. of Metallurgical and Materials Engineering, NITW during 25-27 th September, 2019.
21.		Design and fabrication of Spray Painting robotic arm	International Conference on Technological Advances In Mechanical Engineering(ICTAME) organised by Academy of Maritime education and training University, Chennai during 18-19 September, 2019

Journal Publications by the faculty during 2019-20:

S. No	Name of the faculty	Title with page nos.	Journal	ISSN/ISBN No.
1.	Dr. K.Sridhar	Mixed Convection Fluid Flow and Heat transfer analysis over a Vertical flat plate having slip boundary conditions with oxide nano fluids	International Journal of Engineering Trends and Technology, 2019, Vol.67 Issue 11, November 2019	ISSN 2231-5381
2.		Simulation studies on conjugate mixed convection perforated fins pp. 79-86.	International Journal of Scientific Research & Review	ISSN No.2279-0543
3.	Dr. K. Eswaraiah	Exhaust heat recovery from CI engines for power generation Pg No. 250-256	International Journal of Scientific Research & Review	ISSN No.2279-0543

4.		Optimization of Electric Discharge Machining Process Parameters based on Gray relational Analysis for nickel super alloy material	International Journal of Scientific Research and Review Volume 07, Issue 06, June 2019	ISSN No.: 2279-543X
5.		Experimental investigation in electric discharge machining of aluminium metal matrix composites using response surface methodology	International Journal of Scientific Research and Review Volume 07, Issue 05, 2019	ISSN No.: 2279-543X
6.		Investigation on Machining of Hybrid Metal Matrix Composite, pp 846-851	Materials Science Forum ,2019-20 Vol. 969	ISSN: 1662-9752,
7.	Dr. U. Shrinivas Balraj	An hybrid approach for multi-response optimization of rotary electrical discharge machining of nickel super alloy Vol. 23, part 3, pp. 626-631, 2020	Materials today: proceedings	ISSN: 2214-7853
		Investigation on the tensile strength of friction stir welded joints of dissimilar aluminium alloys. Vol. 23, part 3, pp. 469-473, 2020	Materials today: proceedings	ISSN: 2214-7853
8.	Dr. G. Ganesh Kumar	Simulation Studies on Conjugate Mixed Convection Perforated Fins Pp.79-86	International Journal of Scientific Research and Review	2279-0543
		Exhaust heat recovery from compression ignition engines for power generation pp. 250-256	International Journal of Scientific Research and Review	2279-0543
		Mathematical And Experimental Studies On Effect Of Number Of Blades On Centrifugal Pump Used In Left Ventricular Assisted Device (LVAD)	ASAIO Journal	ISSN: 1058-2916 Online ISSN: 1538-943X
9.	Dr. P. Prabhakara Rao	Optimization of Electric Discharge Machining Process Parameters based on Gray relational Analysis for nickel super alloy material	International Journal of Scientific Research and Review Volume 07, Issue 06, June 2019	ISSN No.: 2279-543X
10.	Dr. A. Devaraju	Effect of Cryogenic Coolant on Mechanical Properties and Micrographs of Solid State Welding of 2014 Al Plates	Recent Advances in Material Sciences, Springer Nature Singapore Pte Ltd. 2019	ISSN 2522-5022
11.		Synthesis and Characterization of Functionally Graded Ceramic Material for Aerospace Applications	Intelligent Manufacturing and Energy Sustainability, Springer Nature Singapore Pte Ltd. 2019	ISSN 2190-3018
12.		Effect of Rotation speed on Tensile Properties & Microhardness of Dissimilar Al Alloys 6061-T6 to 2024 -T6 Welded via Solid State Joining Technique	Materials Today: Proceedings 18 (2019) 3286-3290	2214-7853

13.		Impact of Finer granules on Tensile & Micrograph characterization of Solid welded AA2014	Materials Today: Proceedings 18 (2019) 3286-3290	2214-7853
14.		Effect of Tool rotational speeds on FSW AA6082-T6 Al alloys joints page no.62-68	International Journal of Recent Technology and Engineering (IJRTE)	2277-3878
15.		Effect of Distinct Parameters on the Mechanical Properties of Solid-State Processed AA-2014	International Journal of Recent Technology and Engineering (IJRTE)	
16.	P.S.S.Murthy	Dynamically equivalent systems for reducing Shaking effects in Spatial Mechanisms	Jour of Adv Research in Dynamical & Control Systems, Vol. 12, Issue-02, 2020	1943-023X
17.	Dr. G. Srinivasa Rao	Experimental analysis of free convective heat transfer through micro channels with different configuration	International Journal of Advance Research, Ideas and Innovations in Technology (Volume 5, Issue 3)	ISSN: 2454-132X
18.	Dr. J. Laxman	Optimization of Electric Discharge Machining Process Parameters based on Gray relational Analysis for nickel super alloy material	International Journal of Scientific Research and Review Volume 07, Issue 06, June 2019	ISSN No.: 2279-543X
19.	S. Chandramouli	Experimental investigation in electric discharge machining of aluminium metal matrix composites using response surface methodology	International Journal of Scientific Research and Review Volume 07, Issue 05, 2019	ISSN No.: 2279-543X
20.		Mixed Convection Fluid Flow and Heat Transfer Analysis over a Vertical Flat Plate having Slip Boundary Conditions with oxide Nano fluids	International Journal of Engineering Trends and Technology (IJETT) - Volume 67 Issue 11-Nov 2019	ISSN: 2231-5381
21.		Experimental analysis of free convective heat transfer through micro channels with different configuration	International Journal of Advance Research, Ideas and Innovations in Technology (Volume 5, Issue 3)	ISSN: 2454-132X
22.		Experimental Visualization of Free Convection Temperature Analysis in Vertical Parallel Plates with Various Boundary Conditions	International Journal of Engineering Science and Computing, April 2019	ISSN 2321 3361 © 2019 IJESC
23.		Extraction Of Thermo-fuels From Waste Plastics	Journal of Emerging Technologies and Innovative Research (JETIR)	2019 JETIR June 2019, Volume 6, Issue 6
24.	K. Kishor Kumar	Design of an Aircraft Wing Structure for Static& Fatigue Life Prediction	International Journal of Recent Technology and Engineering (IJRTE)	ISSN: 2277-3878

25.	Dr. Md. Sameeer	Friction Stir Welding of AA6082 Thin Aluminium Alloy Reinforced with Al ₂ O ₃ Nanoparticles pp. 1-9	Transactions of the Indian Ceramic Society	0371-750X
26.		Effect of Tool Rotational Speeds on Friction Stir Welded AA6082-T6 Aluminium Alloy Joints pp. 62-67	International Journal of Recent Technology and Engineering (IJRTE)	ISSN: 2277-3878
27.	Dr. G. Sai Kumar	Effect of Tool Rotational Speeds on Friction Stir Welded AA6082-T6 Aluminium Alloy Joints	International Journal of Recent Technology and Engineering (IJRTE)	2277-3878
28.	Dr. G. Srinu	Performance Evaluation of CNT/MoS ₂ Hybrid Nanofluid in Machining for Surface Roughness	International Journal of Automotive and Mechanical Engineering	2180-1606
29.		Experimental investigation to study the performance of CNT/MoS ₂ hybrid nanofluid in turning of AISI 1040 steel	Australian Journal of Mechanical Engineering	2204-2253
30.		Effect of Tool Rotational Speeds on Friction Stir Welded AA6082-T6 Aluminium Alloy Joints	International Journal of Recent Technology and Engineering (IJRTE)	2277-3878

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.	Togaru Lavanith	Design, Thermal And Computational Fluid Dynamic Analyses On Loop Heat Pipe Wick And Manufacturing With Selective Laser Melting	Thermal & Fluids Analysis Workshop (TFAWS- 2019)	National Aeronautics and Space Administration Glenn Research Center	August 26 th -30 th , 2019	International
2.	Naganathan Karthik	Design, Thermal And Computational Fluid Dynamic Analyses On Loop Heat Pipe Wick And Manufacturing With Selective Laser Melting	Thermal & Fluids Analysis Workshop (TFAWS- 2019)	National Aeronautics and Space Administration Glenn Research Center	August 26 th -30 th , 2019	International
3.	Lavanith Togaru	Design Of Exoskeleton For Musculoskeletal Support Of Human Body Under Low Gravity Conditions And Its Performance Evaluation By Fluid Dynamic Analysis	Thermal & Fluids Analysis Workshop TFAWS 2020	National Aeronautics and Space Administration Glenn Research Center	August 18 th -20 th , 2020	International

4.	Karthik Naganathan	Design Of Exoskeleton For Musculoskeletal Support Of Human Body Under Low Gravity Conditions And Its Performance Evaluation By Fluid Dynamic Analysis	Thermal & Fluids Analysis Workshop TFAWS 2020	National Aeronautics and Space Administration Glenn Research Center	August 18 th -20 th , 2020	International
5.	Lavanith Togaru	Thrust Performance Evaluation Of Chemical Rocket Engine By Thermal And Fluid Dynamic Analysis For Exhaust Gas Flow Subjected To Cooling	Thermal & Fluids Analysis Workshop TFAWS 2020	National Aeronautics and Space Administration Glenn Research Center	August 18 th -20 th , 2020	International
6.	Karthik Naganathan	Thrust Performance Evaluation Of Chemical Rocket Engine By Thermal And Fluid Dynamic Analysis For Exhaust Gas Flow Subjected To Cooling	Thermal & Fluids Analysis Workshop TFAWS 2020 -	National Aeronautics and Space Administration Glenn Research Center	August 18 th -20 th , 2020	International

Students Publications in National/International Journals:





S. No	Name of Student	Title of the Journal Paper	Details of Journal Paper	Dates	National/ International
1.	Karthik Naganathan	Design And Optimization Of Formula Car Suspension System	Journal of Emerging Technologies and Innovative Research (JETIR) © 2019 JETIR, Volume 6, Issue 6 ISSN-2349-5162.	June 2019	International
2.	Akhilesh Sirivolu	Design And Optimization Of Formula Car Suspension System	Journal of Emerging Technologies and Innovative Research (JETIR) © 2019 JETIR, Volume 6, Issue 6 ISSN-2349-5162.	June 2019	International
3.	Lavanith Thogaru	Design And Optimization Of Formula Car Suspension System	Journal of Emerging Technologies and Innovative Research (JETIR) © 2019 JETIR, Volume 6, Issue 6 ISSN-2349-5162.	June 2019	International
4.	Shravan Anand Komakula	Optimization of Inverse Kinematics Solutions of A T4R Robotic Manipulator	Journal of Mechatronics And Robotics, Volume 3, pg. 258-268	2019	International
5.	Shravan Anand Komakula	Spatial Analysis of Robotic Arm with Constrained Joints	International Journal of Applied Engineering Research (IJAER), ISSN 0973-4562, Volume 14, Number 10, pp. 2430-2435	June-2019	International
6.	Shravan Anand Komakula	Design and Analysis of Vented Disc Brake Rotor	International Journal of Applied Engineering Research (IJAER), ISSN 0973-4562, Volume 14, Number 9, pp. 2228-2233	June-2019	International
7.	Praharsha Gurram	Design and Analysis of Vented Disc Brake Rotor	International Journal of Applied Engineering Research (IJAER), ISSN 0973-4562, Volume 14, Number 9, pp. 2228-2233	June-2019	International

Roll of Honor for the Batch 2015-2019 and Overall Academic Topper for the academic year 2018-19:

Pashikanti UJWALA (Roll. No: B15ME055) (CGPA 9.71) receiving Gold Medal from Sri Alluri Murthy Raju, Chairman, Prof. K. Purushotham, KU Registrar and Principal K. Ashoka Reddy for overall Academic Performance from Mechanical Engineering Department and institution level for the Academic Year 2015-19 (Second Autonomous Batch) (36 Annual Graduation Day).



Odd 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	VII	B16ME039	SUNKARI PRADEEP		9.71	1
2	2017-21	V	B17ME143	VEMULA RITWIK		9.59	1
3	2018-22	III	B19ME190L	ARIMADLA SRAVAN		9.95	1
4	2019-23	I	B19ME063	RAYEKANTI VAMSHIKRISHNA		9.50	1

KITSW RACING TEAM



*Season 2019-20 Second Runner up
in Sales Presentation FFS 2019*



F O R C E R A C I N G

SEASON 2019-20



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