

Conferences attended by the Faculty

1. G. Ganesh Kumar, K. Sridhar, "Simulation Studies on Effect of an Angle of Attack on Bow Shock Formation in Aerodynamic Flows" Proceedings of the International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET), V R Siddhartha Engineering College, Vijayawada, A.P., India 23rd & 24th October, 2019, pp-32.

2. G. Ganesh Kumar, K. Sridhar, "Design, Simulation and Analysis of a Three Vane Small Scale Wind Turbine" Proceedings of the International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET), V R Siddhartha Engineering College, Vijayawada, A.P., India 23rd & 24th October, 2019, pp-53.

3. G. Vinod Kumar, Dr. K. Sridhar, "Exergy Analysis of an Integrated Solar Flat Plate Collector with Packed Bed System", Proceedings of the International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET), V R Siddhartha Engineering College, Vijayawada, A.P., India 23rd & 24th October, 2019, pp-64.

4. Anil Kumar Bodukuri, Eswaraiah K and Pradeep.V, "Investigation on Machining of Hybrid Metal Matrix Composite" Materials Science Forum, ISSN: 1662-9752, Vol. 969, pp 846-851, doi:10.4028/www.scientific.net/MSF.969.846, 2019 Trans Tech Publications Ltd, Switzerland. Online: 2019-08-30. (Scopus)

5. Shaik Ansar Ali Ahamed, Aruri Devaraju and K. V. Narasimha Rao, "Effect of Cryogenic Coolant on Mechanical Properties and Micrographs of Solid State Welding of 2014 Al Plates" Springer. Springer Nature Singapore
https://doi.org/10.1007/978-981-13-7643-6_9 (Scopus)

6. Aruri Devaraju, M Jeshrun Shalem & B Manichandra, "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-Elsevier, 18 (2019) 3286-3290. (Scopus)

7. Shaik Ansar Ali Ahamed, Aruri Devarajub* & K V Narasimha Rao, "Impact of Finer granules on Tensile & Micrograph characterization of Solid welded AA2014", Materials Today: Proceedings—Elsevier, 18 (2019) 2688-2692. (Scopus)

8. Srinivasa Rao Gogulapati, "Experimental Analysis of Temperature Distribution and Energy Storage In Solar Pond Using Ethylene Glycol Solution" Proceedings of the International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET), V R Siddhartha Engineering College, Vijayawada, A.P., India 23rd & 24th October, 2019, pp-27.

9. S. Anil Kumar, Dr. ShaikKhadar Vali, Dr. P. Usha Sri, "Overall Heat Loss Coefficient of a Solar Air Heater with and without Absorption Coating", Proceedings of the International Conference on Advances in Renowned Renewable Energy Technologies (ICARRET), V R Siddhartha Engineering College, Vijayawada, A.P., India 23rd & 24th October, 2019, pp-37.

10. Akhil Raja Keshetti, K. Kishor Kumar, "Additive Manufacturing Technology and its implementation in construction as an eco innovate solution" International Conference on Advances in Minerals, Metals, Materials, Manufacturing and Modelling (ICAMS-2019), Organized by Department of Metallurgical and Materials Engineering, National Institute of Technology, Warangal during 25-27 September, 2019.

11. G. Sumithra, K. Kishor Kumar, "Design and Fabrication of Spray Painting Robotic Arm", 3rd International conference on Technological Advances in Mechanical Engineering (ICTAME-2019) at AMET deemed to be University, Chennai during 19-20 September, 2019.

Details of STTPs/ FDPs/ Workshops etc., attended by the faculty:

1. Majority of the faculty have attended One Week Faculty Development Programme on "Disruptive Technologies in Digital Manufacturing" organized by MED, KITSW during 25-29 November, 2019.

2. Dr. K. Sridhar, Dr. G. Srinivasa Rao, Sri S. Ramesh, Sri S. Anil Kumar attended Faculty Development Programme on "Energy Conservation and Waste Heat Recovery" organized by NPTEL in collaboration with IIT Kharagpur during 29th July-18th October 2019.

3. Sri K. Kishor Kumar attended Faculty Development Programme on "Manufacturing of Composites" organized by NPTEL in collaboration with IIT Khanpur during 29th July-18th October 2019.

4. Dr. P. Prabhakara Rao, Sri J. Laxman, Sri S. Chandramouli attended Faculty Development Programme on "Fundamentals of Manufacturing Processes" organized by NPTEL in collaboration with IIT Roorkee during 29th July-18th October 2019.

5. Dr. P. Prabhakara Rao, Sri V. Prasanna attended Faculty Development Programme on "Engineering Metrology" organized by NPTEL in collaboration with IIT Khanpur during 29th July-18th October 2019.

6. Ms. V. Laxmi Priyanka attended Faculty Development Programme on "Design Practice" organized by NPTEL in collaboration with IIT Kharagpur during 29th July-20th September 2019.

7. Ms. G. Sumithra attended Faculty Development Programme on "Robotics" organized by NPTEL in collaboration with IIT Kharagpur during 29th July-20th September 2019.

8. Sri P. Rajesh attended Faculty Development Programme on "Introduction to Research" organized by NPTEL in collaboration with IIT Madras during 29th July-18th October 2019.

STTPs/ FDPs/ Workshops Conducted by Department of Mechanical Engineering:

1. One Week ISTE & ADROITEC Sponsored Faculty Development Program On "DISRUPTIVE TECHNOLOGIES IN DIGITAL MANUFACTURING (DTM-19)" during 25-29, NOVEMBER 2019.



SAE Activities in various Competitions:



Team Force Racing at SAE SUPRA - 2019 conducted between 15 - 20 July, 2019 at Delhi.



THE PRODIGY

DEPARTMENT OF MECHANICAL ENGINEERING

NEWSLETTER - DECEMBER 2019

Chief Editor:
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Principal's Message:



I feel proud and honour to write this message because this newsletter is the testimonial of the commitment of the department towards the outcome based education and enhanced student-teacher learning process which is in line with the vision and mission of the department. I hope that the department will strive further to improve the quality of the education and bring laurels to the institute.

Dr. K. Ashoka Reddy

HOD's Message:



It is happy to bring out this newsletter and the best part of the newsletter is that students bagged many accolades and prizes not only in academics but also in extracurricular activities. This newsletter will provide few examples of achievements of the students and faculty in the academic year 2019-20. I am looking forward to more success from the department.

Dr. K. Sridhar

PROGRAM OUTCOMES (POs)

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, attend 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 re-

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.

Vision of the 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 Department

- M1: To impart quality education that builds strong ethical attitude, technical knowledge and professional skills by providing congenial teaching-learning environment.
- M2: 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.
- M3: 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 SPECIFIC OUTCOMES (PSOs)

Engineering Graduates will be able

- 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.

Student Achievements :

- Gopi Chander Pendra of 4th year Mech-1 received Best Master of Ceremony Award at “Ek Bharath Shreshta Bharath NCC Camp”, from The Honourable Governor of Arunachal Pradesh.
- Team Force Racing received “2nd Runner Up Award ” in Cost Presentation of FSS-2019 event.

Student Publications :

- Togaru Lavanith of 4th year Mech-1 have presented a paper in International Conference conducted by NASA, in August 2019.
- Akhil Raja Keshetti, K. Kishor Kumar, “Additive Manufacturing Technology and its implementation in construction as an eco innovate solution” International Conference on Advances in Minerals, Metals, Materials, Manufacturing and Modelling (ICAMS-2019), Organized by Department of Metallurgical and Materials Engineering, National Institute of Technology, Warangal during 25-27 September, 2019.
- Akhil Raja and Sri Ranga Reddy “DESIGN AND THERMAL ANALYSIS ON ENGINE CYLINDER FINS BY MODIFYING ITS MATERIAL AND GEOMETRY”, International Journal of Innovative Research in Technology (IJIRT) ,ISSN: 2349-6002, Volume 6, Issue 4, pp:86-93 , September 2019.



Inaugural Session of MESA 2019-20.



Career Guidance Session to Pre Final Year Students by Final Year Student on 6 August, 2019.

Training & Placement Activities:

- TCS Ninja - 4
- Cognizant - 3

Total No. of offers received in odd semester = 07

Mechanical Engineering Students Association (MESA) Activities

S.No.	Event Name	No. of Students Participate
1.	Mesa Inauguration	100
2.	Interaction session on Automobiles	50
3.	Live Demo on Engines	65
4.	Session on Career Guidance	80
5.	Teachers Day Celebration	105
6.	Bio Printing	50
7.	Interaction on Sumshodhini events	70



Miss. K. Ujwala B15ME055 receiving Overall Excellence Award in Graduation day, on December 21, 2019

STUDENT PARTICIPATION STATISTICS OF SUMSHODHINI-2019

Sumshodhini is an annual national level technical symposium of KITS Warangal, conducted by ISTE student chapter that serves as platform for various workshops and technical events. Sumshodhini '19 featured a 2 day workshop on SPACECRAFT DESIGN conducted by Mechanical Engineering Department. A resource team for STAR, Surat, India have come to teach the students about the fundamental of rocketry and Spacecraft design. The workshop also featured the launch of High Powered Chemical Model Rocket, which was their first ever launch in South India. The workshop had an overwhelming response of 107 registrations.

As part of the technical fest several new events were introduced to challenge the critical thinking skills of the students. The events conducted were Paper Presentation, Udaan (Glider event), Mech Master (Trivia event), Royal Rumble (Bot fighting event), Sand Cruiser (Sand obstacle event) and Khel Kabbadi (Bot Kabbadi event). These events have been conducted by the student organizers with Mechanical Engineering Department faculty as judges. The overall fest was a success due to efforts and support of the college management, the principal, ISTE faculty coordinators, Head of the Department, Department faculty coordinators and the faculty and also due to the work of student organizing team.

- Spacecraft Design Workshop - 107
- Royal Rumble - 36
- Khel Khabaddi - 35
- Sand Crusier - 34
- Paper Presentations - 28
- Udaan - 25
- Mech Master - 21

GALLERY OF SUMSHODHINI-2019



Students and Organizing committee of Spacecraft workshop



Resource persons being presented a Memento by Department Faculty



Space Craft Launch as a part of Workshop



UDAAN



ROYAL RUMBLE



KHEL Khabaddi



PAPER PRESENTATIONS



SAND CRUISER



MECH MASTER