

## Research and Publications

1. Dr. G. Srinivasa Rao, "Experimental Visualisation of Free Convection Temperature Analysis in Vertical Parallel Plates with various Boundary Conditions", International Journal of Engineering, Science and Computing (IJESC), ISSN. No. 2321-3361, Vol.9, Issue No. 4, April 2019, pp. 21390-21394

2. Praharsha Gurram, Shraavan Anand Komakula, G. Vinod Kumar, "Design and Analysis of Vented Disc Brake Rotor", International Journal of Applied Engineering Research, ISSN 0973-4562, June-2019, Volume 14, Number 9, pp. 2228-2233

3. Dr. P. Venkateswara Rao, S. Ramesh, S. Anil Kumar, "Effects of Oxygenated Additives with Diesel on the Performance of D I Diesel Engine", Journal of Energy Research and Reviews, DOI: 10.9734/JENRR/2019/v2i330076, Article No. JENRR.47681, PP 1-9, March 2019

## Conferences attended by the Faculty

1. K.Rajnikanth, Dr. K. Sridhar, "Computational Investigation of Inert Particle Size Effect on Hydrodynamic Behavior Of Fluidized Bed", 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEE-2019), ISBN: 978-81-928314-5-9, 15-16 February 2019, Pg No. 28.

2. P. Rukinimi, Dr. K. Sridhar, "A Review on Comparative Study Of Solar Air Heater Performance With Different Shapes On Absorber Plate Surface", 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEE-2019), ISBN: 978-81-928314-5-9, 15-16 February 2019, Pg No. 34.

3. Dr. K. Sridhar, G.Vinod Kumar, G.Lingalath, D.Nalini, K.Rajnikanth, P. Rukinimi, "Thermodynamic Analysis of Frame 9 E Gas Turbine Model", 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEE-2019), ISBN: 978-81-928314-5-9, 15-16 February 2019, Pg No. 35.

4. D.Srinu, Dr. G.Ganesh Kumar, Dr. K. Sridhar, "Parametric Studies on Combined Conduction And Convection Heat Transfer In Perforated Fins", 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEE-2019), ISBN: 978-81-928314-5-9, 15-16 February 2019, Pg No. 41.

5. D.Nalini, Dr. K. Sridhar, G.Vinod Kumar, "Performance Optimization of Solar Air Heater By Structural Modifications Of Absorber Plate", 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEE-2019), ISBN: 978-81-928314-5-9, 15-16 February 2019, Pg No. 80.

6. V.Sampath, Dr. K. Eswaraiyah, B.Anil Kumar "Experimental Investigation of Process Parameters of EDM on 17-4 PH Steel using Taguchi Method", International Conference on Applied Mechanical Engineering Research (ICAMER-2019), ISBN 9778-93-87433-24-4, 2nd-4th May 2019, pp-289-295.

7. V.Srikanth, Dr. K. R. Narendar Reddy, Dr. D.K. Nageshwar Rao "Mechanical Characterization of Coir Reinforced KGK Composite", 10th International Conference on Advancements in Polymeric Materials (APM2019), 22-24 Jan, 2019.

8. P.Anil Kumar, Dr. K. R.Narendar Reddy "3D Mixed Mode Fracture Analysis on Composite Material By Using FEA", 10th International Conference on Advancements in Polymeric Materials (APM2019), 22-24 Jan, 2019.

9. Dr. U. Shrinivas Balraj, "Parametric Optimisation of Laser Machining Processes using Teaching Learning Based Optimisation", International Conference on Research Trends in Science, Technology, Engineering & Management (I-CRSTEM-2019), ISBN.No. 978-81-940546-0-3, 10th -12th May 2019, PP 51-55.

10. Dr. U. Shrinivas Balraj, "An hybrid approach for multi-response optimization of rotary electrical discharge machining of nickel super alloy", International conf: Recent advances in Materials, Manufacturing and energy systems (I-CRAMMES-2019), 3rd -4th Jan. 2019, pp. 238-244.

11. Dr. U. Shrinivas Balraj, P.Sreedhar " Investigation on the tensile strength of friction stir welded joints of dissimilar aluminium alloys", International conf: Recent advances in Materials, Manufacturing and energy systems (ICRAMMES-2019) , 3rd -4th Jan. 2019, pp. 289-294.

12. Mohd. Abdul Mubeen, Sri-Ch. Karunakar, S.Sripathy "Preparation and Testing of Glass Powder Reinforced Polyester Resin Lamina", International conf: Recent advances in Materials, Manufacturing and energy systems (I-CRAMMES-2019), materials today proceedings Science Direct (Elsevier), 3rd -4th Jan. 2019.

13. Raju, T. K. Kishor Kumar, MJawahar, Radhika. M, "Modeling and Analysis of Helical Gear of Two Stage Reduction Gear Box", International Conference on Research Trends in Science, Technology, Engineering & Management (I-CRSTM-2019), ISBN No. 978-81-940546-0-3, 10th - 12th May-2019.

14. Raju, T. K. Kishor Kumar, Hemasunder, B. Ch. Jeevan Reddy, "Design and Fabrication of Steering Controlled Headlights", International Conference on Research Trends in Science, Technology, Engineering & Management (I-CRSTM-2019), ISBN No. 978-81-940546-0-3, 10th - 12th May-2019.

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

1. Majority of the Faculty have attended One Week Workshop on "Research Methodology (RM-19)" organized by MED, KITSW during 7<sup>th</sup>-11<sup>th</sup> Jan 2019.

2. Dr. P. Venkateswara Rao, Sri G. Vinod Kumar, Sri S. Anil Kumar attended Faculty Development Programme on " Steam and Gas Power Systems " organized by NPTEL in collaboration with IIT Kharagpur during 25<sup>th</sup> Feb. 2019- 27<sup>th</sup> April, 2019.

3. Dr. P. Venkateswara Rao, Sri G. Vinod Kumar, Sri S. Anil Kumar attended Faculty Development Programme on " IC Engines and Gas Turbines " organized by NPTEL in collaboration with IIT Kharagpur during 28<sup>th</sup> Jan. 2019- 28<sup>th</sup> April, 2019.

4. Sri S.Chandramouli & Sri S.Sripathy attended a One Week Workshop on "Mechanical and Tribology Behavior of Advanced Composites " conducted by Department of Mechanical Engineering, NIT, Warangal during 21<sup>st</sup> - 25<sup>th</sup> January 2019.

5. Dr. P. Prabhakara Rao & Dr. G.Srinivasa Rao attended a Faculty Development Programme on "Strategies on ICT tools for Hybrid Vehicle" organized by Electronics and ICT Academy, NIT Warangal during 7<sup>th</sup>-12<sup>th</sup> Feb., 2019.

6. Sri V. Prassana attended a One Week Short Term Training Programme on "Advances in Adaptive and Digital Manufacturing" conducted by Department of Mechanical Engineering, Osmania University during 25<sup>th</sup> - 29<sup>th</sup> March 2019.

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



Felicitation to the Guest Speaker ( Proud Alumni KITSW ) L.V. Ram Prasad during R & AC - Industrial Applications Workshop on 15<sup>th</sup> March 2019.

## SAE Activities in various Competitions:



Team has Secured All India 8<sup>th</sup> Rank at National Electric Karting Championship held at RGPV, Bhopal during 25<sup>th</sup> March to 29<sup>th</sup> March 2019.



# THE PRODIGY

## DEPARTMENT OF MECHANICAL ENGINEERING

NEWSLETTER - JUNE 2019

### Chief Editor:

**Dr. K. Sridhar**  
Professor and Head

### Editors-In-Charge:

**Dr. P. Prabhakara Rao**  
Assistant Professor

**Sri. S. Anil Kumar**  
Assistant Professor

**Sri. K. Kishor Kumar**  
Assistant Professor

### Students Editorial Board

Mr.K.SHRAVAN ANAND (IV/IV)  
Mr.K.AKHLI RAJA (II/IV)

## 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 2018-19. I am looking forward to more success from the department.

**Dr. K. Sridhar**



Inaugural Ceremony of RM- 19 at Kakatiya University with chief Guest being Prof. K. Purushotham, Registrar, Kakatiya University.



Organizing Committee of RM-19.



Prof. K. Shridhar taking charge as Head Of Department on 1<sup>st</sup> Feb 2019.

## 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.

### Placement Orientation Programmes



Interactive seesion by officials of M/S Raam Group to the studentd of outgoing batch 2019-20.



Interactive seesion by officials of Prathiraj Metal Masters Pvt.Ltd to the studentd of outgoing batch 2018-19.



CRT programme to the students of outgoing batch 2019-20 in the month of June 2019.

### Campus Placements

- 1.Campus Drive by Cyient on 11.01.2019.
- 2.M/S.Amara Raja Batteries Ltd. conducted drive on 06.02.2019.
- 3.On campus drive by M/s.Hundai R&D on 13.03.2019.
- 4.On campus pool drive by INFOSYS 22.03.2019.
- 5.Cognizent off campus drive in the month of March.
- 6.UTON ENERGIA off campus drive in month of April.

### Mechanical Engineering Students Association (MESA) Activities

S.No.	Event Name	No. of Students Participate
1.	Role Play	100
2.	Technical Quiz	150
3.	Guest Lecture	200
4.	Technical Paper Presentation	30
5.	Group Discussion Sessions	100
6.	Mock Interview	70
7.	Cultural Events	200

### Student Publications :

1. K. Shravan Anand & G. Praharsa "Design of Disc Brake Rotor Using Static Structural and Thermal Performance Analysis, pp.166-172" in Journal of Emerging Technologies and Innovative Research (JETIR) April 2019, Volume 6, Issue 4.
2. K. Shravan Anand "Optimization of Inverse Kinematic Solution of a T4R Robotic Manipulator" in Journal of Mechatronics and Robotics.
3. K. Shravan Anand " Spatial Analysis of Robotic Arm with Constrained Joints " in International Journal of Applied Engineering Research.
4. K. Shravan Anand "Design and Analysis of Vented Disc Brake Rotor " in International Journal of Applied Engineering Research.

## STUDENTS ACHIEVEMENTS



Group photo with the students got selected in various MNC's in the academic year 2018-19



Group photo with the students

### Achievements :

1. Mr. K. Shravan Anand got best project award from TCS.
2. Team Force Racing got All India 8th Rank at National Electric Karting Chamionship 2019 at RGPV , Bhopal.
3. 44 Students got selected into various MNC's in the academic year 2018-19.

### Galleria: Our Cultural and Technical Events



Sri. Ch. Karunakar receiving Best Faculty Advisor Award as a part of Dronacharya Assessment at National Electric Karting Championship held at RGPV, Bhopal.



Honourable Principal and HOD along with the Technical Staff at Training in Mechanical Engineering Laboratories held during 18<sup>th</sup> to 22<sup>nd</sup> Feb. 2019.



Interactive Session by Jannu Thomus, Secretary, IPE(TS & AP Chapter).



Interactive session by President, MESA regarding Technical Paper's & Carrer



CFD session by Third year students in MESA Hour.



Pre Assessment test (Scholarship Test) to IInd & III rd Year students by CANTER CADD.



Judges of Event ( LEFT ) & studnets presnting ideas ( RIGHT ) at IDEATHON 2K19 12<sup>th</sup> March, 2019.

