

MECH VAARTHA

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**DEPARTMENT OF
MECHANICAL ENGINEERING**

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Bapatla Engineering College::Bapatla
(AUTONOMOUS)
DEPARTMENT OF MECHANICAL ENGINEERING

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Vision of the Department

"To become a center of Excellence in producing the graduates as professional Mechanical Engineers with a high-quality education, innovative and entrepreneurial skills to secure the society and industry needs".

Mission of the Department

- To impart high-quality education in curriculum and to build the students in their capacity and enhancing skills to make them globally competitive Mechanical Engineers.
- To prepare the students by providing exceptional academic environment, leadership, ethical guidelines and lifelong learning needed for a long professional career.
- To enhance the overall academic performance of the students gradually and thereby increasing their placement potential.
- To build the institute-industry interaction by providing the internship programs

Department of Mechanical Engineering (Oct-Dec 2023) data for Newsletter

Patents

1. V. V. Kondaiah, B. Ratna Sunil, Rotary fabric hanging drier, Application No: 202041011839, date of filing: 19-03-2020, granted on 20-11-2023.

Awards/recognitions etc

1. Dr. B. Ratna Sunil listed in the world's top 2% scientists announced by Stanford University, USA for the year 2023.

Journal papers

1. Satish Prakash Karlapudy, T. Nancharaiah, V. V. Subba Rao, Influence of post-heat treatment on microstructure, texture, and mechanical properties of 18Ni-300 maraging steel fabricated by using LPBF technique, *Progress in Additive Manufacturing*, NOV 2023, 1-16.

2. Ch Lakshmi Srinivas et al., “Flexural and impact response of bamboo and pineapple leaf fiber reinforced composites using experimental and numerical techniques”, International Journal on Interactive Design and Manufacturing (IJDeM), Published online October, 2023, <https://doi.org/10.1007/s12008-023-01564-6>
3. N. M. K. Sarath Kumar, G. Suresh, Ravikumar Dumpala, B. Ratna Sunil, In vitro degradation studies on Mg-Zn-CeO₂ composites for biodegradable implant applications, *Biointerface. Res. Appl. Chem.*, (Dec, 2023), (Accepted)
4. B. Venkateswarlu, B. Ratna Sunil, R. Sunil Kumar, The role of heat treatment on the in vitro degradation and corrosion-initiated failure of the biodegradable Mg-Zn-RE alloy, Canadian metallurgical quarterly, (Dec, 2023) (Accepted).
5. Subrat Kumar Baral, Thawre Manjusha, B. Ratna Sunil, Ravikumar Dumpala, Temperature-dependent wear characteristics of ZE41 magnesium alloy under air and inert environments, Material Science and Engineering Technology, (Nov, 2023) (Accepted)
6. Anchupogu Praveen et al., “Experimental Investigations on NOx Reduction Using Antioxidant Additives in Conjunction with SCR in a Diesel Engine Powered by Ricinus Communis Biodiesel”, SAE Technical Paper 2023-28-0059, Nov, 2023, doi:10.4271/2023-28-0059.
7. Anchupogu Praveen et. al “Performance Emission Parameters Behavior of a DI Diesel Engine Using Al₂O₃ and TiO₂ Nano Additive Biodiesel Blends”, SAE Technical Paper, Nov, 2023-28-0127, 2023. ISSN: 0148-7191, e-ISSN: 2688-3627 DOI: <https://doi.org/10.4271/2023-28-0127>.
8. Praveen Anchupogu et. al “Optimization of biodiesel yield and performance investigations on diesel engine powered with hydrogen and acetylene gas injected with enriched Jojoba biodiesel blend”, International Journal of Hydrogen Energy, Dec, 2023, ISSN 0360-3199, <https://doi.org/10.1016/j.ijhydene.2023.09.166>. (Accepted)

FDPs/workshops/seminar/conferences etc

1. D Sameer Kumar organized ACITE – ATAL Sponsored seminar on “AI tools for Educators in line with OBE (AITOBE 2023)” organized by Department of Mechanical Engineering, Bapatla Engineering College, Bapatla during November 20th – 25th, 2023 with 50 External participants as a co-coordinator.
2. P. Umamaheswarrao presented paper on “Multi response optimization of Process Parameters during Friction Stir Welding of AA2014-AA7075 Aluminium Alloys using Desirability Function Analysis”, 9th National Conference on Advancements in Mechanical, Environmental, Safety and Health Engineering (AMESHE 2023), organized by the Department of Mechanical Engineering, Knowledge Institute of Technology, Salem on 5th Oct 2023.
3. P. Umamaheswarrao presented paper on “Comparative Analysis of The Performance Characteristics of A Diesel Engine By Using Calophyllum Inophyllum and Sesame Biodiesel-Diesel Blends” National conference on New and Renewable Energy Resources for Sustainable Future-2023, organized by Yogi Vemana University, Kadapa, A.P. during 7-8 Dec 2023.
4. P. Umamaheswarrao participated in the six days Faculty Development Program on Recent advancements in materials manufacturing and technology conducted online during 30

october 2023 to 4 Nov 2023 organized by Swarnandhra college of engineering & technology, Narasapur, Andhra Pradesh

Faculty completed NPTEL courses

1. Dr. D. Sameer Kumar Successfully completed NPTEL Course on “Problem Solving with C”.
2. Dr. D. Sameer Kumar Successfully completed NPTEL Course on “Stress Management” with Elite Grade.

WORKSHOPS/SEMINARS/CONFERENCES ATTENDED BY THE FACULTY OF MECHANICAL ENGINEERING DEPARTMENT:

Name of the Event	Title	Faculty Name	Organizers
FDP	2 Day FDP on Scientific Contribution of Academic Institutions in the Development of IPR	Dr. B. IFTEKHAR HUSSAIN	Bapatla Engineering College (A), Bapatla, A.P.
Webinar	ONLINE LECTURE 2 ON ENTREPRENEURSHIP	Dr. B. Iftekhar Hussain	Department of Biotechnology, Ministry of Science and Technology, Government of India at Bahona College, Jorhat, Assam, India.
FDP	Faculty Development Programme on ‘Artificial Intelligence in Higher Education: Teaching and Learning Languages’	Dr. B. IFTEKHAR HUSSAIN	JAIN (Deemed-to-be University), Bengaluru.
FDP	A Five Day Faculty Development Programme on “Empowering Educators: AI in Robotics and Automation for Innovative Initiatives in the Digital Era”	Dr. BEPORAM IFTEKHAR HUSSAIN	Sri Krishna College of Engineering and Technology, Coimbatore.
STTP	Laser Based Manufacturing for Future Industrial Development	P.Umamaheswarrao	National Institute of Technology Rourkela

Workshop	Structural Equation Modeling: Advances in Research Methodology and Research Publications	P.Umamahes warrao	Dr B R Ambedkar National Institute of Technology, Jalandhar
MOOCS / NPTEL / Any other online Course ..etc	Advanced methods of optimization in design and manufacturing	P.Umamahes warrao	Vellore Institute of Technology, Vellore
FDP	Recent Advancements in Materials and Manufacturing Technology	P.Umamahes warrao	Swarnandhra College of Engineering & Technology, Narasapur
FDP	AICTE Recognized Faculty Development Programme on Development of Automation Competencies Conducted by Curriculum Development Centre Department	Ch.Lakshmi Srinivas	Aditya Institute of Technology and Management, Andhra Pradesh
Workshop	Workshop on Road Map and Action plan for EISCsin A.P	Ch.Lakshmi Srinivas	VIT-AP
Workshop	NeW IPR 2023 e-Workshop	Ch.Lakshmi Srinivas	Online workshop
Workshop	NDT workshop	Ch.Lakshmi Srinivas	BEC, Bapatla
FDP	FDP on OBE & Essential AI Tools for Teachers	Ch.Lakshmi Srinivas	Online
Workshop	Industry-Academia Engagement workshop on "Emission Control Strategies in Thermal Power Plants	Ch.Lakshmi Srinivas	Online
FDP	One Week Online Faculty Development	Ch.Lakshmi	Aditya Institute of Technology and Management, Andhra

	Program on "INDUSTRIAL OPTIMIZATION WITH MATLAB"	Srinivas	Pradesh
FDP	Accreditation and Outcome Based Learning	Dr. T. NANCHARAIA H	IIT MADRAS, CHENNAI



Viksit Bharat programme of PM was telecasted on 11/12/23 in Dept. Seminar Hall