SHABDKOSH

NEWSLETTER

Department of Mechanical Engineering

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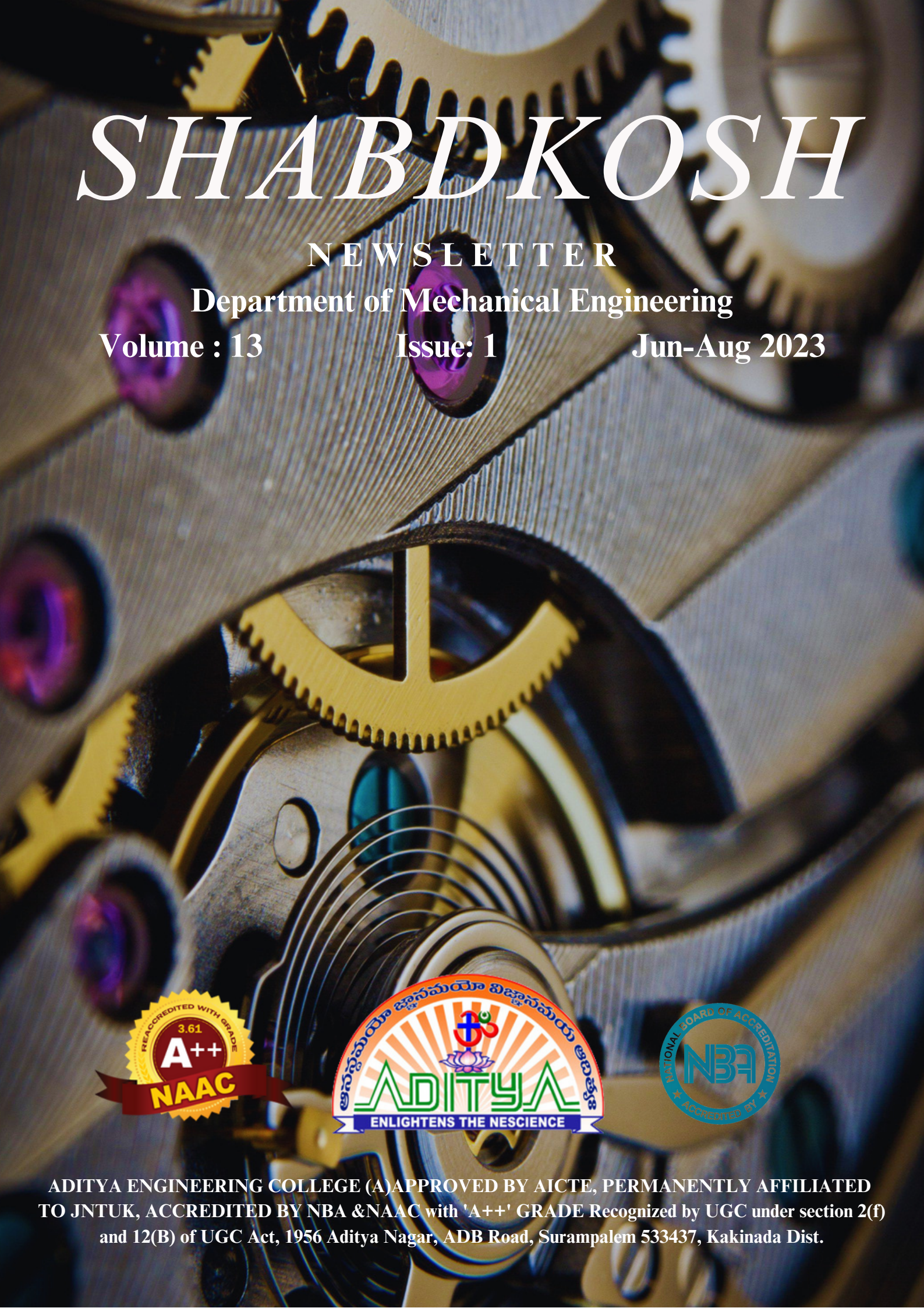


ADITYA ENGINEERING COLLEGE (A)APPROVED BY AICTE, PERMANENTLY AFFILIATED TO JNTUK, ACCREDITED BY NBA &NAAC with 'A++' GRADE Recognized by UGC under section 2(f) and 12(B) of UGC Act, 1956 Aditya Nagar, ADB Road, Surampalem 533437, Kakinada Dist.

CONTENTS

ABOUT THE DEPARTMENT

Managing moving machines of the world! It is this catchy phrase that has made Mechanical Engineering the thriving branch for being an integral part in shaping our world run on machines. The Mechanical Engineering department at Aditya has earned a place of high repute through its quality teaching rendered by highly qualified and experienced faculty with remarkable number of research publications in reputed journals like ASME, ELSEVIER etc. and rigorous practical training creating an ambience of excitement in all the stages of study. The department lays impetus on hands-on training with the support of simulation packages such as CATIA, ANSYS, IDEAS, PRO-E, UNIGRAPHICS and SOLID WORDS. The academic activities include guest lectures, industrial visits, workshops, seminars, technical festivals VEDA and programs under Mechanical Engineering Students Association (MESA), collegiate club of the Society of Automotive Engineers (SAE) and Auto gear club. The projects that received appreciation in various events organized at state and national level are Go-Kart, Quad bike, Solar powered wheelchair, LPG bike, Reaping Machine, and many more such highly relevant contraptions. Students are encouraged to do internships in reputed industries like TATA Motors PVT. LTD., Hindustan Shipyard, BHEL PVT. LTD., Bhilai Steel Plant, Bokaro Thermal Power Station, Nalco Mining Division etc

VISION OF THE DEPARTMENT

- **To be a preferred knowledge hub in Mechanical Engineering towards critical thinking, quality research and innovation.**

MISSION OF THE DEPARTMENT

Mission 1:

- **Provide infrastructure for design and development of modern-day solutions.**

Mission 2:

- **Impart leadership, critical thinking and innovation to address the societal needs.**

Mission 3:

- **Collaborate with industry, academia, & R&D organizations for excellence in teaching, research Consultancy services.**

FACULTY PUBLICATIONS

1.Strategic combination of waste plastic/tire pyrolysis oil with biodiesel for natural gas-enriched HCCI engine: Experimental analysis and machine learning model, Energy,2023,280,128233, (IF- 9, SCIE)

2.Substitution of diesel fuel in conventional compression ignition engine with waste biomass-based fuel and its validation using artificial neural networks, Process Safety and Environmental Protection, 2023, 177, pp. 1234–1248,
(IF-7.8, SCIE)

3.Investigation on Ammonia–Biodiesel Fueled RCCI Combustion Engine Using a Split Injection Strategy, ACS Omega, 2023, 8(34), pp. 30990–31001,(IF-4.1, SCIE)

4.Exploration of low heat rejection engine characteristics powered with carbon nanotubes-added waste plastic pyrolysis oil, Process Safety and Environmental Protection, 2023, 176, pp. 1101–1119, (IF-7.8, SCIE)

Development of high strength and corrosion resistance Mg-Zn-Dy/HA-Ag composite for temporary implant applications, Materials Letters, 2023, 347, 134604,(IF- 3.0, SCIE)

Effect of overlapping technique on the grain size distribution and grain orientation in friction stir processed aluminum alloys Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, (IF- 2.4, SCIE)

MIMO- Multi Channel Synthetic Aperture Radar System with Higher Visibility for Autonomous Vehicles to Identify Mobile and Immobile Objects, Remote Sensing in Earth Systems Sciences, 2023 (Scopus)

FACULTY PUBLICATIONS

Conference Paper/ Book

Mr. Veeranjaneyulu Itha

- Maskless electrochemical microtexturing AIP Conference Proceeding 2023, 2786, 020009

Dr. Sandip Kunar

- Fuzzy-based modeling for prediction of machining performance measures for micro-EDM process, AIP Conference Proceedings, 2023, 2786, 020015
- Hybrid Micromachining and Microfabrication Technologies: Principles, Varieties and Applications, 2023

Dr. P.S. Ranjit

- An Optimized Filter Design with Cuckoo Search Algorithm for Industrial Microgrids, Proceedings of 2023 International Conference on Signal Processing, Computation, Electronics, Power and Telecommunication, IConSCEPT 2023, 2023
- A Comprehensive Review on Dynamics of Droplet Impact on Airfoil Surface and Its Adverse Impact on Airfoil Performance Characteristics.. Lecture Notes in Mechanical Engineering, 2023, pp. 183–191

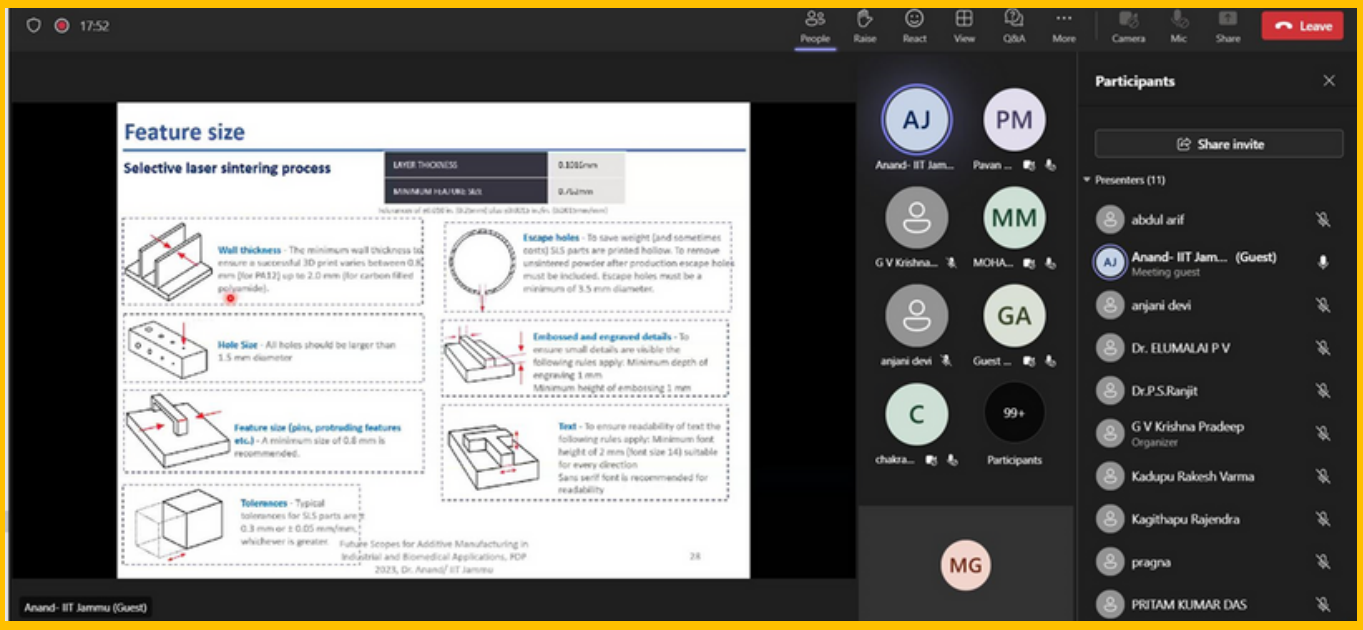
Dr. Pritam Kumar Das

- Nuerical simulation for heat transfer enhancement of ZnFe2O4-water hybrid nanofluid,AIP Conference Proceedings, 2023, 2786, 020002

FACULTY DEVELOPMENT PROGRAM ORGANIZED

- **A Five Day Online FDP on "Future Scope For Additive Manufacturing In Industrial Manufacturing And Biomedical Applications"**

- **Dr. Bh Varaprasad and Dr. GVK Pradeep are the coordinators of an event from 17th July to 21st July 2023.**



STUDENT ACHIVEMENTS

- **Participated In Indian Prokart Endurance Champion Ship**
- **Got 2nd Place On Acceleration Test With Prize Money 5000/-Rs.**

CAMPUS PLACEMENTS

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