

YANTRA

MAGZINE

VOLUME - IV

ISSUE - 2 (DECEMBER- MAY)

2020-21

DEPARTMENT OF MECHANICAL ENGINEERING



ADITYA ENGINEERING COLLEGE (A)

APPROVED BY AICTE NEW DELHI AND AFFILIATED TO JNTU KAKINADA

ABOUT THE MECHANICAL 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

M1: Provide infrastructure for design and development of modern-day solutions.

M2: Impart leadership, critical thinking and innovation to address the societal needs.

M3: Collaborate with industry, academia, & R&D organizations for excellence in teaching, research and consultancy

FACULTY PUBLICATIONS

Sl. No.	Name of the Faculty Author	Title of the Paper	Name of the Journal	ISBN/ISSN Number	Vol/Month	Impact factor
1	Dr. P. V. Elumalai	Effects of antioxidants to reduce the harmful pollutants from diesel engine using preheated palm oil-diesel blend	Journal of Thermal Analysis and Calorimetry	1388-6150	147/February	3.23/SCIE
2	Dr. P. V. Elumalai	Investigation on the mitigation of environmental harmful emissions by incorporating nanoparticles to biofuel water nano emulsion in low heat rejection engine	Heat and Mass Transfer	0947-7411	57/January	1.8/SCIE
3	Dr. Santosh Kumar Dash	An experimental investigation on the combustion characteristics of a direct injection diesel engine fuelled with an algal biodiesel and its diesel blends	Clean Technologies Environmental Policy	1618-954X	23/March	2.6/SCIE
4	Dr. P.S. Ranjit	Experimental investigation of diesel engine with Neem seed oil and compressed natural gas	International Journal of Ambient Energy	2162-8246	43/May	NA
5	Dr. P. V. Elumalai	Experimental investigation of strategies to enhance the homogeneous charge compression ignition engine characteristics powered by WPO	Energy Conversion and Management	0196-8904	236/May	8.9/ SCIE
6	Dr. P. V. Elumalai	Effect of Cerium Oxide Nanoparticles to Improve the Combustion Characteristics of Palm Oil Nano Water Emulsion using Low Heat Rejection Engine	International Journal of Green Energy	1543-5075	18/February	3.8
7	Dr. Sandip Kumar	Influence of Various Pulse Waveforms during Fabrication of Micro Rectangular Pattern by Masked Tool using Electrochemical Micromachining	Journal of Advanced Manufacturing Systems	1793-6896	20/March	NA
8	Dr. A Saravanan	Enhancing productivity of V-through solar water heater incorporated flat plate wick type solar water distillation systems	Journal of heat transfer	0022-1481	143/March	1.8/SCIE

9	Dr. A Saravanan	Investigation of TIG cladding of NiTi wire on substrate 304L to study the effect of applied current on microstructure and mechanical properties	Transactions of the Indian Institute of Metals	0975-1645	74/March	1.21/SCIE
10	Dr. A Saravanan	Study of microstructure and mechanical properties of NiTi wire cladding on super austenitic stainless steel 904L by TIG cladding process	Sadhana	0973-7677	46/March	0.9/SCIE
11	Dr. P. V. Elumalai	Evaluation of water emulsion in biodiesel for engine performance and emission characteristic	Journal of Thermal Analysis and Calorimetry	1588-2926	147/May	3.4/SCIE

FACULTY BOOK CHAPTERS

Sl. No.	Name of the Faculty as Author	Title of the Paper	Name of the Publisher	ISBN Number
1	Dr. P S Ranjit	Biofuel and fuel characterization for IC engines	Nova Science Publishers	978-1-53619-207-0
2	Dr. P S Ranjit	Jatropha curcas	Nova Science Publishers	978-1-53619-207-0

FACULTY CONFERENCE

Sl. No.	Name of the Faculty as Author	Title of the Paper	Name of the Conference	Date/s	Organized by with location	ISBN/ISSN Number
1	Dr. S. Kunar	Generation of Micro Texture Characteristics Using Maskless Electro Chemical Micro Machining	International Conference on Materials Science and Manufacturing Technology	8-9 th April 2021	Akshaya College of Engineering and Technology, Coimbatore	1757-899X
2	Dr. P.S. Ranjit,	Use of SchleicheraOleosa biodiesel blends with conventional diesel in a compression ignition engine - A feasibility assessment	International Conference on Technological Advancements in Materials Science and Manufacturing, ICTAMSM	20-21 st February 2021	Graphic ERA University, Dehradun	2214-7853
3	Dr. P.S. Ranjit	Use of SchleicheraOleosa biodiesel blends with conventional diesel in a compression ignition engine – A feasibility assessment	International Conference on Technological Advancements in Materials Science and Manufacturing	19–20 th February 2021	Graphic Era (Deemed to be University), Dehradun	2214-7853

4	Dr. P.S. Ranjit	Experimental investigations on gaseous hydrogen supplemented Aleurites Fordii biodiesel in a direct injection diesel engine for performance enhancement and reduction in emissions	International Conference on Technological Advancements in Materials Science and Manufacturing	19–20 th February 2021	Graphic Era (Deemed to be University), Dehradun	2214-7853
5	Dr. P.S. Ranjit	Role of nanoparticles as an additive to the biodiesel for the performance and emission analysis of diesel engine – A review	International Conference on Technological Advancements in Materials Science and Manufacturing	19–20 th February 2021	Graphic Era (Deemed to be University), Dehradun	2214-7853
6	Dr. V. V. Kamesh	A novel approach to find optimum group replacement period	International Conference on Technological Advancements in Materials Science and Manufacturing	19–20 th February 2021	Graphic Era (Deemed to be University), Dehradun	2214-7853
7	Dr. V. V. Kamesh	An additive approach to find distinct mechanisms of a planar kinematic chain	International Conference on Technological Advancements in Materials Science and Manufacturing	19–20 th February 2021	Graphic Era (Deemed to be University), Dehradun	2214-7853
8	Dr. S. Kunar	Generation of Microtextured Characteristics using Maskless Electrochemical Micromachining	International Conference on Materials Science and Manufacturing Technology	8-9 th April 2021	Akshaya College of Engineering and Technology, Coimbatore	1757-899X
9	Dr. S. Kunar	Development and WEDM Machining Performance of AI based Metal Matrix Composites with Rice Husk Ash	International Conference on Materials Science and Manufacturing Technology	8-9 th April 2021	Akshaya College of Engineering and Technology, Coimbatore	1757-899X

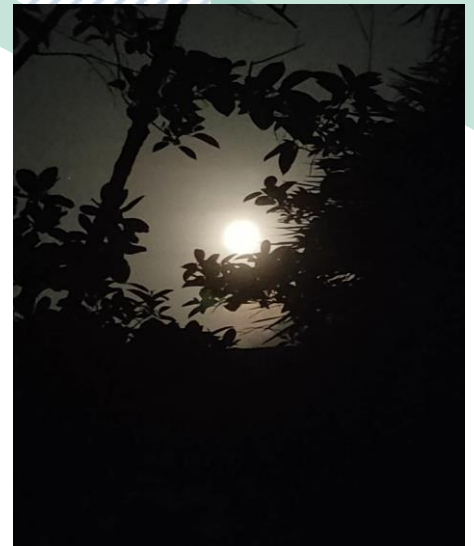
FACULTY SEMINAR AND WORKSHOPS ATTENDED

Sl. No.	Name of faculty	Name of Event	Name of organizer	Place/ Location	Dates/ Duration
1	Mr. SDVVS Reddy	Three Day Workshop on Robotics	G Pulla Reddy Engineering College	Kurnool	18-20 March 2021/3 Days
2	Dr. Sandip Kunar	Three Day Workshop on Robotics	G Pulla Reddy Engineering College	Kurnool	18-20 March 2021/3 Days
3	Mr. Rajesh Kumar	Three Day Workshop on Robotics	G Pulla Reddy Engineering College	Kurnool	18-20 March 2021/3 Days

STUDENTS ACHIEVEMENT

Sl. No.	Name of the students	Name of the event	Presented Topic	Venue	Date	Award/ Reward
1	Mr. Omni Srinu	Co-Rail 2021	Advances in Capillary Fluid Modelling	Symbiosis Institute of Technology, Pune	13-03-2021	3 rd Winner
	Mr. Budupula Surya					
2	Mr. Matcha Mercy Raju	NCAMMT 20	Conditional monitoring & fault Diagnosis	Karpagam Academy of Higher Education, Coimbatore	16-12-20 to 17-12-20	Participation
3	Mr. Yenugupalli Abhishek	NCAMMT 20	Conditional monitoring & fault Diagnosis	Karpagam Academy of Higher Education, Coimbatore	16-12-20 to 17-12-20	Participation
4	Mr. AluriSanhith Chand	Hybrid 2020	Active roll-over protection system in Automobiles	PSG College of Technology, Coimbatore	19-12-20 to 20-12-20	Participation
5	Mr.Y. Abhishek	Hybrid 2020	Active roll-over protection system in Automobiles	PSG College of Technology, Coimbatore	19-12-20 to 20-12-20	Participation
6	Mr. Petla Balaji Naidu	E-Idea 2020	Autonomous Submarines	Nehru College of Engineering and Research Centre Thrissur	12-05-20 to 13-05-20	Participation
7	Mr. Ramayanam Supraj	E-Idea 2020	Autonomous Submarines	Nehru College of Engineering and Research Centre Thrissur	12-05-20 to 13-05-20	Participation
8	Mr.SiddiRamu	Technicia 2021	Magnetic Levitation Train	Amity University Mumbai	25-02-21 to 27-02-21	Participation
9	Mr. Vagidi Prakash	Technicia 2021	Magnetic Levitation Train	Amity University Mumbai	25-02-21 to 27-02-21	Participation
10	Mr. Keta Eswar Kumar	Hack N'Code 2021	Contactless energy transfer system	Mukesh Patel School of Technology Management and Engineering Mumbai	29-03-21 to 30-03-21	Participation
11	Mr. Mohammad Irfan Ahmed	Hack N'Code 2021	Contactless energy transfer system	Mukesh Patel School of Technology Management and Engineering Mumbai	29-03-21 to 30-03-21	Participation

STUDENTS PENCIL ARTS



B SRIHARI GANESH
19A91A0360

STUDENTS ARCHITECTURES



Nagam karunakar - 21A95A0339

Munuri somesh - 21A95A0338

Samuel raj - 21A95A0342



Sai reddy - 21A95A0341

PLACEMENT DETAILS

ADITYA ENGINEERING COLLEGE
Surampalem, Andhra Pradesh, INDIA

#20-21 PLACEMENTS

Congratulations

R S P Vamsi
17A91A0304

for being placed in
acuvate
...where Acumen drives Innovation

Package
₹ 3.00 LPA

aec.edu.in /adityaedugrp

ADITYA ENGINEERING COLLEGE
Surampalem, Andhra Pradesh, INDIA

#20-21 PLACEMENTS

Congratulations

for being placed in
DXC TECHNOLOGY

Package **₹ 1.56 LPA**

 B S S Sriteja 17A91A0306	 Ch V Vikas 17A91A0311	 A S Kiran 17A91A03C0	 D Kumar Reddy 17A91A03D0
 K Venkatesh 17A91A03D9	 B S B V B Ganesh 17A91A03G0	 Prasad Kumar Yadav 17A91A03H6	 Omni Srinu 18A95A0310
 N Surya Prasad 18A95A0325	 N Avinash 18A95A0335	 Rajsekhar Reddy 17A91A03F2	

aditya.ac.in /adityaedugrp

EDITORIALBOARD

EDITOR-IN-CHIEF

Dr. M. Sreenivasa Reddy, Director

ASSOCIATE EDITORS

Dr. Bh. Vara Prasad, Professor & HOD

Dr. P. V. Elumalai, Associate Professor

ASSISTANT EDITORS

Mr. K.Venkatesh , IV B.Tech
Mr. K. Venkatesh, IV B.Tech
Mr. Vishwajeet Raj, III B. Tech
Mr. Pamu Gowtham, III B. Tech
Mr. B. Srihari Ganesh, II B. Tech
Mr. Naga Sandeep, II B. Tech