

# **DEPARTMENT OF MECHANICAL ENGINEERING**

# **MECHAZINE**

(2021-2022)

Semester – II

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EDITOR: Dr. S. Madhu Professor & HOD.

#### **ASSOCIATE EDITORS:**

Mrs. A. Muni Tanuja, Assistant Professor. Mrs. G. Rameshwari, Assistant Professor.

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1.

### **2. FACULTY ACHIEVEMENTS:**

# i) Details of Faculty Patents:

S. No.	Patent Applicati on No.	Status of Patent (Published / Granted)	Inventor/s Name	Title of the Patent	Applicant/s Name	Patent Published Date / Granted Date (DD/MM/YYYY)
1	AU 202110241 8 A4	Granted	Sastry, G. Ravikiran;Panda, Jibitesh Kumar;Naresh Rai, Ram	A System and A Method for Analyzing Performance and Emission on DI Diesel Engine Fueled with Diesel- Palm Kernel Methyl Ester- Triacetin Blends	G. Ravikiran Sastry;Jibitesh Kumar Panda;Santhosh Kumar Gugulothu	2022/03/24
2	341515- 001	Published	Dr. J. Venatesu Naik, G. Venkata Punnarao Dr. Mukesh Y.B, Dr. T. Krishnaiah, Dr. M.D. Sikindar Baba	Mini Refrigerator	Dr. J. Venatesu Naik, G. Venkata Punnarao Dr. Mukesh Y.B, Dr. T. Krishnaiah, Dr. M.D. Sikindar Baba	18/03/2022

## ii) Books Publication Details:

S.No	Names of the Author	Title of the Book	Publishing Company & ISBN
1	H.Ameresh Dr.Aishwarya Sudhakar Dr.Amarendranath Choudhury	Sustainable Green Energy and Management	Scientific International Publishing House & 978-93-5625-094-9

# iii) Funding Proposals Applied/Sanctioned:

S. No.	Scheme	Funding	Title of the	Investigator	Proposed Budget/ Applied	Status
<b>5.</b> INU.	Name	Name Agency Proposal (s) o		on/ Reference Number	Status	
1	SEED Money	Anurag University	Smart Self-Healing Composite Structure with Health Monitoring System	Dr Vaibhav Srivastava	1.30 Lakhs/ 29-11-2021 / No:.AU/Admn./SeedMoney/41/2 021/	Sanctioned
2	SRG	DST	Design and Evaluation of Smart Self-Healing Composite Structure with Real Time Health	Dr Vaibhav Srivastava	17.60 Lakhs/ 01-03-2022/ SRG/2022/001264/ES / 422022000555	Under Review
3	SEED	Anurag	Increasing the	Dr. P.	2 Lakhs/17.03.22AU/Admn./Seed	Sanctioned

	Money	University	distillate yield from a	Vishwanath	Money/41/2021/	
			Solar Still through	Kumar		
			different design			
			variations			
			Fabrication and			
			Characterization of			
			Additively	Dr L	23 Lakhs/ 24-04-2022/	Under Review
4	CRG	DST	Manufactured PLA		CRG/2022/003251	
			based Composite for	Venugopal	CKG/2022/005251	
			Biomedical			
			Applications			

### > PBL Certification:

- 1. **Description**: Completed 2 PBL Courses (Introduction to PBL, Problem solving in PBL) offered by **AALBORG UNIVERSITY**, Denmark.
- 2. Name of the Achievers: Mrs. A. Neeraja, Mrs. C. Sravanthi & Mrs. A. Muni Tanuja.
- 3. Designation: Assistant Professor
- 4. Date : March, 2022







Online PBL Badge

#### 2. STUDENT ACHIEVEMENTS:

S. No.	Name of the activity	Number of students participated
1	Paper publications	2
2	Internships	19
3	NSS	5
4	Sports	6
5	Training & certification courses	33

Miss. P. Lakshmi Vaishnavi of II year Mech-B sec student has been appointed as "Area E1 Director, D126" from Anurag Toastmasters in June, 2022.



Mr. Jayanth Madhur of IV-year mechanical, won Super singer contest and bol baby bol contest and is also a finalist in Telugu Indian Idol – 2022.



Miss. S. Keerthana and Miss. G. Akshaya of IV-year mechanical, have won First Prize for paper presentation "A review on functionally graded materials" in Maharena-2022, 19<sup>th</sup> National Level Technical Symposium at Osmania University.



Mr. G. Chandra Mouli has secured All India Rank of 787 in Joint Admission Test for Masters, JAM-2022.



3.

## 4. FACULTY PUBLICATIONS:

S No	Authors	Title of the paper	Name of the Journal	Volume no, issue no	Index	Page No.
1	Shiva Bejugama	Effect of TiO2 addition on densification, microstructure, and mechanical properties of CSZTA	Journal of alloys and compounds	Volume 899, February 2022, ISSN: 0925-8388	SCI	12
2	Jibitesh Panda_	Exploration of engine characteristics in a CRDI diesel engine enriched with hydrogen in dual fuel mode using toroidal combustion chamber	International Journal of Hydrogen Energy	Volume 47, Issue 26, pp. 13157-13167, March 2022, ISSN: 0360-3199	SCI	55
3	Jibitesh Panda_	Influence of Exhaust Gas Recirculation on Performance, Combustion, and Emission Characteristics of a Common Rail Direct Injection Diesel Engine Fueled by Diesel/Higher Alcohol Blends	Journal of Thermal Science and Engineering Applications	Vol.14, pp. 101001- 16, March, 2022, ISSN: 19485093	SCI	80
4	K Srinivasa Chalapathi, Dr. T. Venkateswara Rao	Low Cost Catalytic Converter Retrofit using Ceria and Zirconia Coated Monoliths for Old Diesel Automobiles to control pollution	International Journal of Mechanical Engineering (IJME)	Vol 7, Issue 1, pp.24- 35, Jan 2022, ISSN: 0974-5823	Scopus	96

5	Pooja Angolkar, Jampala Nagesh	Effect of Build Direction and Surface Finish on Wear Behavior of AlSi10Mg Alloy Printed by Laser Powder Bed Fusion	International Journal of Mechanical Engineering	Vol. 7, Issue 2, 3209- 3214, February, 2022, ISSN: 0974- 5823	Scopus	108
6	Vaibhav Srivastava , Manish Gupta	Evaluation and Prediction of self- healing assessments for AA2014 based hybrid smart composite structures: A Novel fuzzy logic approach	International Journal of Engineering	pp.1-17, March 2022, Online ISSN: 1728-144x	WoS	192
7	A. Muni Tanuja , Anoop Kumar & B. Nageswara Rao	Review on the Application of CGP to Improve AZ31 Mg Alloy Properties	Applications of Computational Methods in Manufacturing and Product	May 2022	Scopus	207

S. No	Event Name	No of Faculty Participated
1	Short Term Training Programme (STTP)	4
2	Faculty Development Programme (FDP)	16
3	Workshops	6
4	EDX Certifications	2
6	Webinars	11

#### 5. FACULTY PARTICIPATIONS (FDPs / WEBINARS):

#### 6. CLUB EVENTS:

#### CAD CLUB:

**Description:** 7-Day workshop on "Solidworks". The main objective of this workshop is to equip the students with the knowledge and hands on experience for designing and developing industrial components using Solidworks.

Name of the Organizer: Dr. P Saritha, Assistant Professor and Faculty Coordinator of CAD Club.

Dates: Spell 1: 25th to 27th February 2022 Spell 2: 4th to 6th March 2022 Modelling competition: 19th March 2022



Dr. G. Parthasarathi, Dr. P. Saritha and Mrs. A. Neeraja have attended Two days FDP on PBL at KG Reddy college on 4<sup>th</sup>, 5<sup>th</sup> April-2022



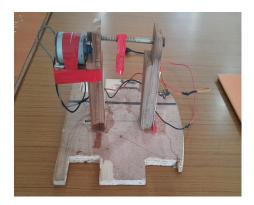
#### **PBL CLUB:**

**Description:** Project Based Learning - Model Making was implemented for this semester for the subjects:

- 1. Dynamics of Machines
- 2. Fluid Mechanics and Hydraulic Machines

Name of the Organizers: Mrs. C. Sravanthi, Mrs. A. Neeraja, Mrs. A. Muni Tanuja and Dr. P. Saritha, Assistant Professor and Faculty Coordinator of AU-PBL Club.





HYDRAULIC BRAKE

BALANCING OF ROTATING MASSES



MODEL OF SINGLE ACTING RECIPROCATING PUMP



STEAM TURBINE



HYDRAULIC TRAFFIC CONTROLLER

S. No	Number of	Number
1	Companies contacted	3
2	Direct placements	10 (Apprenticeships)
3	MOUs signed	1
4	Recruiters	1

## 7. INDUSTRY INSTITUTION INTERACTION:

## 8. PLACEMENTS:

<u>S.No</u>	Company	No. of students placed	Package
1	Intellipaat	1	9.0
2	Wipro	4	6.5
3	GEP	1	5.0
4	Wipro	34	4.2
5	Capgemini	4	4.0
6	Practo Technologies	6	4.0
7	Infosys	4	3.5
8	CYIENT	1	4.2
9	Medha Servo Drives	2	3.5
10	Ramky Enviro Sustainability Pvt.Ltd	1	2.8
11	TechnipFMC	13	2.5
12	Regal Rexnord	3	1.8