

# YANTRA

## MAGAZINE

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2021-22

DEPARTMENT OF MECHANICAL ENGINEERING



**ADITYA ENGINEERING COLLEGE (A)**

APPROVED BY AICTE NEW DELHI AND AFFILIATED TO JNTU KAKINADA

# ABOUT 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 services.

# Seminars, and Workshops

SL. No.	Type of Event	Title of Event	Name of the Coordinator	Resource Person Details	Date/s of the event	No. of Participants
1	Seminar	Demystifying 5G	Mr. M. Hari Kishore, Asst. Professor	Mr. Ratnakar Rayavarapu, Senior Director, Samsung R&D, Bangalore, India	11-06-2021	53
2	Seminar	Nano Technology	Mr. B. H. K. Bagath Kumar, Asst. Professor	Dr. Rajendra Prasad M B, Associate Professor in Physics National Defence Academy, Khadakwasla, Pune	20-12-2021	53
3	Seminar	Spectrum Management and Preparation Strategy for GATE, IES and Core Jobs	Mr. G. Ramanaidu Asst. Professor	Mr. G K Reddy, Senior Director, Samsung R&D, Bangalore, India	29-10-2021	42

## Invited Lecturers

SL. No	Name of the faculty	Name of the event	Name of the topic addressed/ delivered	Date	Invited Organization/ institute
1	Mrs. Mylavarapu Anusha	Guest Lecture	Fundamentals of design	23 August 2021	Sri Shakthi Institute of Engineering and Technology
2	Dr. M. Zubairuddin	Seminar	Finite Element Analysis of Laser and GTA welding of Grade 91 Steel	23-24 July 2021	Indian Institute of Welding, Chennai Branch
3	Dr. Elumalai P V	FDP	Advance thermal energy system	21-22 June 2021	Bharath Institute of Higher Education and Research

**SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
2727 CHENNAI-600 076

Department of Agriculture Engineering  
Organizes Guest Lecture on  
**Fundamentals of Design**

Resource person  
**Mrs. Anusha Mylavarapu**  
Asst. Professor/ Mechanical Engineering  
Aditya Engineering College,  
Andhra Pradesh

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Dean **Dr. A. TAJUDDIN** Dept. of Agri. Engrg.  
HOD **Dr. K. V. RANEESH** Dept. of Agri. Engrg.  
Coordinator **Dr. M. Kishore Kumar** Asst. Agri. Engrg.

Zoom ID : 213 949 1441 Passcode : 123  
11:00 AM - 12:00 PM 23 AUG 2021

**Bharath INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
(Declared as Deemed - to - be University under section 3 of UGC Act 1956)

**DEPARTMENT OF MECHANICAL ENGINEERING**  
The Management, Staff and Students Cordially Invite You for the  
**5 DAYS FACULTY DEVELOPMENT PROGRAMME**  
ON  
**ADVANCE THERMAL ENERGY SYSTEM**  
21-6-2021 to 25-6-2021 (2.00 P.M to 3.30 P.M)

**Resource Persons and Schedule**

<b>Day: 21-6-2021 - (2.00 P.M to 3.30 P.M)</b> <b>Topic: Thermal Energy Storage</b> <b>Dr. A.R. Pradeep Kumar, M.E., Ph.D.</b> Professor & Head of the Department, Department of Mechanical Engineering, Chaitanya College of Engineering, Chennai	<b>Day: 22-6-2021 - (2.00 P.M to 3.30 P.M)</b> <b>Topic: Alternative Fuel in IC Engine</b> <b>Dr. Kishore Kumar, M.E., Ph.D.</b> Asst. Professor, C.R. College of Engineering and Technology, Department of Mechanical Engineering, Coimbatore
<b>Day: 23-6-2021 - (2.00 P.M to 3.30 P.M)</b> <b>Topic: Current Trends in Composites Technology</b> <b>Dr. M. Parthasarathy, M.E., Ph.D.</b> Asst. Professor, Department of Automobile Engineering, Vel Tech University, Avadi, Chennai	<b>Day: 24-6-2021 - (2.00 P.M to 3.30 P.M)</b> <b>Topic: Alternative Fuel in IC Engine</b> <b>Dr. Elumalai P.V., M.E., Ph.D.</b> Asst. Professor, Aditya Engineering College, Chaitanya, East Godavari, Andhra Pradesh, India
<b>Day: 25-6-2021 - (2.00 P.M to 3.30 P.M)</b> <b>Topic: Solar Energy</b> <b>Dr. M. Maragan, M.E., Ph.D.</b> Asst. Professor, Aditya College of Engineering & Technology, Surampalem, East Godavari, Andhra Pradesh, India	<b>Day: 26-6-2021 - (2.00 P.M to 3.30 P.M)</b> <b>Topic: Alternative Fuel in IC Engine</b> <b>Dr. V. Balasubra, M.E., Ph.D.</b> Associate Prof. Department of Mechanical Engineering, Bharath Institute of Higher Education and Research

Registration Link: <https://forms.gle/5m5m5m5m5m5m5m5m>  
 For CDR: [cdm@bharath.edu.in](mailto:cdm@bharath.edu.in)  
 For: [info@bharath.edu.in](mailto:info@bharath.edu.in) & Advance Enquiry: [info@bharath.edu.in](mailto:info@bharath.edu.in)  
 FDP Google meet link: <https://meet.google.com/ajkq-ctjw-ty>

Dr. N.S. Senthil, M.E., Ph.D.,  
Coordinator  
Department of Mechanical Engineering - BDEER  
Phone No: 994220256  
Email: [coordinator@bharath.edu.in](mailto:coordinator@bharath.edu.in)

# LIST OF PATENTS

Sl. No.	Name of the Faculty	Patent details	Area of the patents files/ obtained	Status (filed/published/ granted)	Filing agency
1	Dr. P. S. Ranjit	Title of patent-Automatic Dimming Circuit for Automobile Headlights, Patent Application No.: 202041027643 Publication Date: 31-12-2021	Mechanical Engineering	Filed & published	Indian Patent Office
2	Dr. M S Reddy	Title of patent: Nutritional Health Assessment and Diet Plan Prediction System for Children, Patent Application No.: 202041024261 Publication Date: 17-12-2021	Bio-Medical Engineering	Filed & published	Indian Patent Office
3	Dr. M S Reddy	Title of patent: Agri-Tech Farming Revolution for using Plc Solar water, and Fertilizer's Pump with New Altered-Nozzle, Patent Application No: 202141049447 Publication Date: 05-11-2021	Computer Science	Filed & published	Indian Patent Office
4	Dr. Mohammed Zubairuddin,	Title of patent: Portable incense burner with automatic ash disposal, Patent Application No: IN202141033818A Publication Date: 2022-02-04	Mechanical Engineering	Filed & published	Indian Patent Office

# STUDENT ACTIVITIES

SL. No	Name of the students	Name of the event	Presented Topic	Venue	Date	Award/ Reward
1	Mr. Chelluri Raviteja	Intellectium 2021	Twin-Turbo or Biturbo	Sinhgad Institute of Technology Lonavala	29-10-21 to 30-10-21	Participation
2	Mr. Gadhi Gangadhar	Intellectium 2021	Twin-Turbo or Biturbo	Sinhgad Institute of Technology Lonavala	29-10-21 to 30-10-21	Participation
3	Mr. Kommu Raj Kumar	Impetus and Concepts 2021 (InC) 2021	Blended Winged Aircraft	Pune Institute of Computer Technology, Pune	24-09-21 to 25-09-21	Participation
4	Mr. Kondru Naga Sandeep	Impetus and Concepts 2021 (InC) 2021	Blended Winged Aircraft	Pune Institute of Computer Technology, Pune	24-09-21 to 25-09-21	Participation
5	Mr. Manepalli Vardhan Kumar	TechExhibit 2021	Compressed Air Cars	Sinhgad Institute of Technology, Lonavala	23-07-21 to 24-07-21	Participation
6	Mr. Palivela Rajesh	TechExhibit 2021	Compressed Air Cars	Sinhgad Institute of Technology, Lonavala	23-07-21 to 24-07-21	Participation
7	Mr. Dasari Sandeep Sankar	Mega 2K21	Multidirectional Steering mechanism	Siddhartha Institute of Technology	05-08-2021	3 <sup>rd</sup> Winner
9	Mr. Jami Lakshmina Rasimha	VALIANT 2021	Stair Climbing Robot	Vishnu Institute of Technology, Bhimavaram	22-12-21 to 23-12-21	Participation
10	Mr. Gopu Krishnan	Annual DigITS 2021	Topology Optimization of Front Axle Beam of Heavy-Duty Truck	NRI institute of Technology & Engineering, Nunna	27-11-21 to 28-11-21	Participation



# STUDENT ACTIVITIES

SL. No	Name of the students	Name of the event	Presented Topic	Venue	Date	Award/ Reward
11	Mr. Maddu Ram Prasad	Annual DigITS 2021	Topology Optimization of Front Axle Beam of Heavy Duty Truck	NRI institute of Technology & Engineering, Nunna	27-11-21 to 28-11-21	Participation
12	Mr. Matta Jagadheesh	CREVASSE 2021	Impact of Terinary Blends on HCCI Engine	Audisankara College of Engineering and Technology Gudur	29-06-21 to 30-06-21	Participation
13	Mr. Rudra K	CREVASSE 2021	Impact of Terinary Blends on HCCI Engine	Audisankara College of Engineering and Technology Gudur	29-06-21 to 30-06-21	Participation
14	Mr. Thotakura Praveen Rama Sudhakar	CSE Tecxtreme2021	IOT for automotive sector	Chalapathi Institute of Engineering and Technology Guntur	17-12-21 to 18-12-21	Participation
15	Mr. Chandina Surendra	NIPUNA 21	Double Slope Solar Still with Different Horizontal Wick Materials Integrated with PCM Filled Copper Sphere	Sagi Rama Krishnam Raju Engineering College Bhimavaram	25-06-21 to 26-06-21	Participation
16	Mr. Dandingi Rahul	NIPUNA 21	Double Slope Solar Still with Different Horizontal Wick Materials Integrated with PCM	Sagi Rama Krishnam Raju Engineering College Bhimavaram	25-06-21 to 26-06-21	Participation

# STORY WRITING

## "United in Survival: The Tale of the Forest Animals"

Once upon a time in a dense forest, there lived a group of animals. The forest was their home and provided them with everything they needed to survive: food, shelter, and water.

However, a severe drought hit the land, and the streams and rivers that provided water to the animals began to dry up.

The animals soon realized they needed to come up with a solution to the water shortage. The smart and resourceful raccoon, who was known as the leader of the animals, called a meeting to discuss their options.

After much debate and discussion, the animals agreed to work together to find a new source of water. The strong and brave bear offered to dig a well, while the nimble squirrels would gather branches and leaves to line the well and keep the mud from collapsing.

Days turned into weeks, and finally, the well was complete. The animals eagerly gathered around it, taking turns to drink from the cool, refreshing water. They were overjoyed that they had managed to find a solution to their problem and survived the drought.

From that day on, the animals of the forest lived in harmony and worked together whenever a challenge arose. They knew that by working together, they could overcome anything that came their way and ensure their survival.

The end.

### **MORAL OF THE STORY**

The moral of this story is that cooperation and teamwork can lead to successful problem-solving and survival, even in the face of difficult challenges.

By – Praveen

# Placement Details



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Kondru Durgasai  
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Sayyed Fayazuddin  
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Satya Pujit  
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Chokkapu  
Navaneeth Kumar  
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Naga Sai  
Manikanta Gadde  
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## TCS Ninja

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Kondapalli  
18A91A0320



Mallipudi Rakesh  
18A91A0327



Simbothula Yogesh  
18A91A0348



Geddada Chaitanya  
18A91A0372



Lokesh Babu  
Tadepalli  
18A91A03A2



Akash Tadi  
18A91A03A3



Vishnu Surya Sai  
Varma Matcha  
18A91A03E1



Palivela Sri Veera  
Venkata Vamsi  
18A91A03F1



Krishnarjuna Tadala  
18A91A03G6



Teja Vemvarapu  
19A95A0319



Sushma Kondreddy  
19A95A0325



Malladi Siva  
Rama Krishna  
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Chinna Rao  
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