

MECHAZINE

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SPECIAL POINTS OF INTEREST:

- VISION AND MISSION OF THE DEPARTMENT
- PATENTS
- ADDITIONAL FACILITIES IN DEPARTMENT
- PROJECT LABORATORY

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DEPARTMENT OF MECHANICAL ENGINEERING

Vision

To impart quality education in the field of Mechanical Engineering and to serve the ever-changing industrial demands and societal needs.

Mission

- To provide strong foundation in both the principles and applications of Mechanical Engineering through effective teaching-learning practices.
- To groom the students with the qualities of leadership, team-building, problem-solving and effective communication.
- To promote research, innovation and entrepreneurship with emphasis on needs of the industry and society.
- To mould the students as professionals with a consciousness of ethics and moral values.

Editor's Talk

I am impressed to make out Volume XXVI of 'MECHAZINE' which showcases the Department additional facilities and patents received by our faculties. Our student's spirit to use these facilities for achieving their innovative ideas into reality. In this volume, the reader will get the taste of the Applied Robot Control Lab, Design Lab, Manufacturing simulation Lab and Vehicle technology lab with addition of project laboratory. Being a Mechanical Engineer, each reader must be connected with the different Innovative ideas they may excel their motivation to do something during their engineering journey.



What are Kamikaze drones?

Also called Switchblade drones, these are small unmanned aircraft that are packed with explosives that can be flown directly at a tank or a group of troops that are destroyed when it hits the target and explodes.

They are called Switchblade because their blade-like wings spring out on launch.

The drones have the capability of going past traditional defences to strike its targets and also cost a fraction of what the larger counterparts do.

These small lethal drones are difficult to detect on radar, and they can even be programmed to hit targets without human intervention, based on facial recognition.



Countries Possess such Drones:

Although the Kamikaze might be the most advanced form of this genre of drones, Russia, China, Israel, Iran and Turkey all have some version of it.

What are its Specifications?

Light Weight:

Weighing just five-and-a-half pounds, including its small warhead, the Switchblade can be taken into battle in a backpack and fly up to 7 miles to hit a target.

Can Adjust Blast Radius:

The Switchblade has a feature that allows the operator to adjust the blast radius. So, it can kill the driver of a vehicle but not a passenger, for example. The weapon can be “waived off” up to two seconds before impact.

A blast radius is the distance from the source that will be affected when an explosion occurs.

Cameras for Centralised View of Area of Operation:

The Switchblade also has cameras that show a target seconds before impact.

The drone cruises at 63 miles per hour and provides “operators with real-time video downlinks for a centralised view of the area of operation”.

PATENT

Hearty Congratulations to Dr.Ramulnala, Mr.Vinod M, Mr.Raghuraman M, Mr.Srinivas P, Mr. Mahesh Chakravarthi V, Mr.BhanutejaKrapa, Dr.VenuMangam, Faculty of Mechanical Engineering for receiving a Patent on "Effects of the wind on the High Level Water Collecting Wet Cooling Tower".

Hearty Congratulations to Dr.Ramulnala, Mr.DalojiLocherla, Mr.Ch.BhanuPrakash, Mr.GullipalliNarasinga Rao, Mr.Duvvuri Vamsee Krishna, Mr.B.Bangarraju, Faculty of Mechanical Engineering for receiving a Patent on "Effects Stress Test on Single Thermoelectric Cell in water-based Cooling CTEG System".



DEPARTMENT OF MECHANICAL ENGINEERING

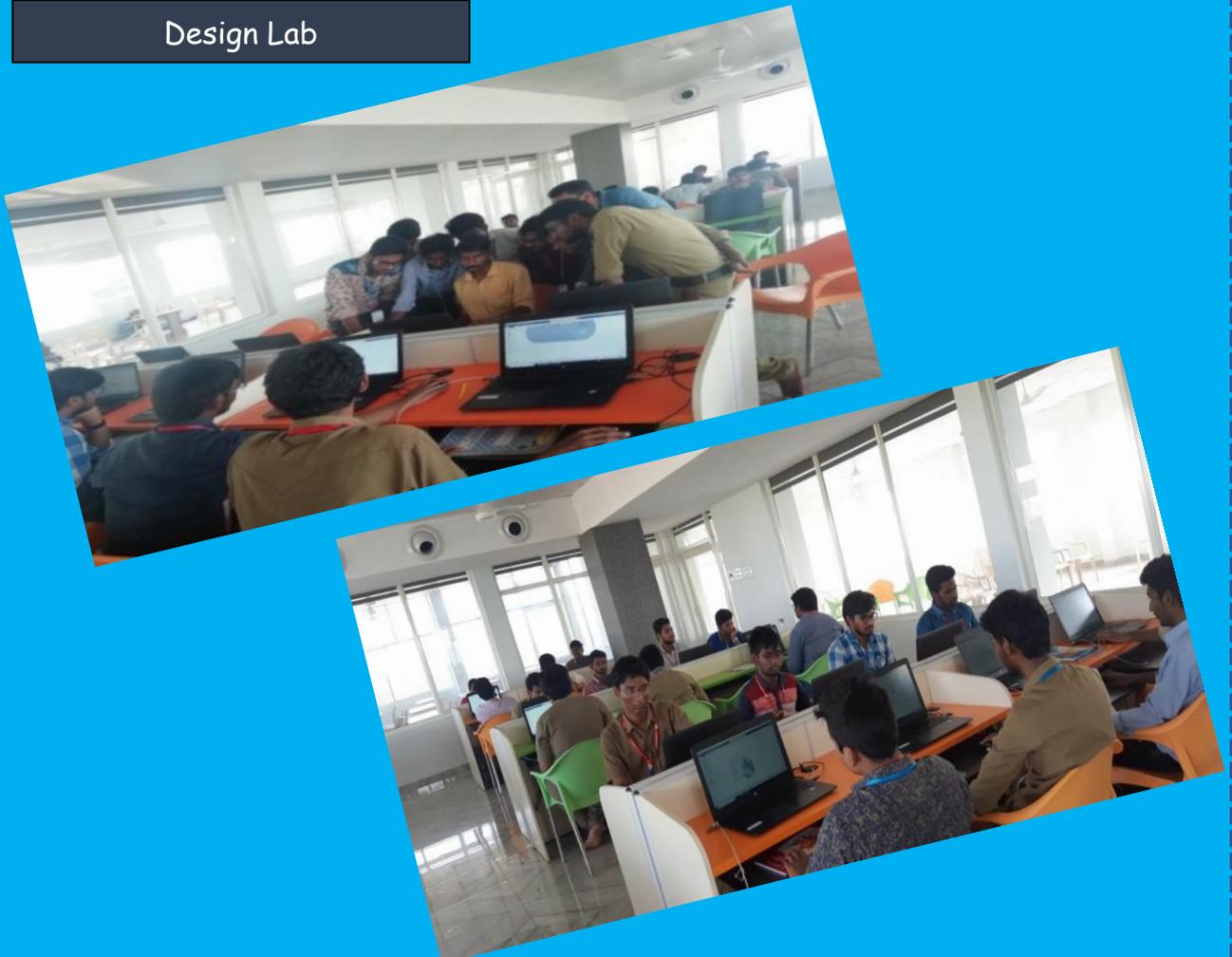


Additional facilities created for improving the quality of learning experience

Applied Robot Control Lab



Design Lab



Manufacturing Simulation



Vehicle Technology Lab



When was the first electric car invented in India?

REVA, India's first zero polluting Electric Vehicle for city mobility, was commercialized in June 2001.



Project Laboratory

The Department has established a Project Laboratory and Centre of Excellence to meet the research needs of both faculty and students. The Centers of Excellence are equipped with CAD station and CNC milling and turning machines for conducting research. The other laboratories are well- furnished for conducting experimentation or fabrication of models.

Department of Mechanical Engineering in association with Indo-Euro and APSSDC collaboration established an exclusive Applied Robot Control lab for doing projects related to applications of robots in manufacturing and production industries.

The department also provides excellent state of art facilities in the laboratories, start from the design to fabrication of karting vehicles and e-bikes. The laboratories include Design laboratory in association with APSSDC was set up at the Centre of Excellence for design and analysis of karting vehicles. The students are continuously trained in Manufacturing Simulation lab which provides advanced production related software's like 3DX Delmia and Simulia, this lab is associated with Haritha Techserv for bridging the Industry-academia gap.

Vehicle Technology lab is set up with cut section and working models which helps the students to understand and apply the knowledge required to fabricate the Go-Karts, e-Bikes and ATV's for various national level events.

A separate Project laboratory is provided for the students to do their project works and other related activities where the systems are equipped with 3D Experience, AutoCAD, Solidworks, ANSYS, FlexSim and EdgeCAM softwares.





2020-2024 BATCH PHOTOS





"Talk to yourself once in a day, otherwise you may miss meeting an intelligent person in this world."

—
Swami Vivekananda

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