



**EASWARI  
ENGINEERING COLLEGE**

An AUTONOMOUS Institution  
Affiliated to ANNA UNIVERSITY

**RAMAPURAM CHENNAI**

**DEPARTMENT OF  
MECHANICAL ENGINEERING**

**NEWS**

**LETTER**

**JANUARY - MARCH  
2022**

**STUDENT EDITORS**

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## **VISION**

To be an acknowledged leader in imparting Mechanical Engineering education, research and be a recognized resource center for industry and society

## **MISSION**

**M1:**To make the students understand the basic and advanced Engineering concepts in the core fields of Mechanical Engineering through Under-Graduate and Post-Graduate Courses.

**M2:**To prepare the students and expose them to the basic and applied research, thus fostering creativity through recognized research centers.

**M3:**To make the students undergo training in the Industries, identify the current problems and solve them with multidisciplinary and professional approach.

**M4:**To prepare the students to integrate Engineering with business that encourages technological commercialization by inviting eminent entrepreneurs for seminars and workshops.

**M5:**To make the students do application oriented projects which identify the current problems, solving them and thus contribute to the societal needs.

**M6:**To inculcate the value of ethics, lifelong learning and widening the knowledge frontiers through long term interaction with other academia and industry.

## PROGRAM OUTCOMES (PO)

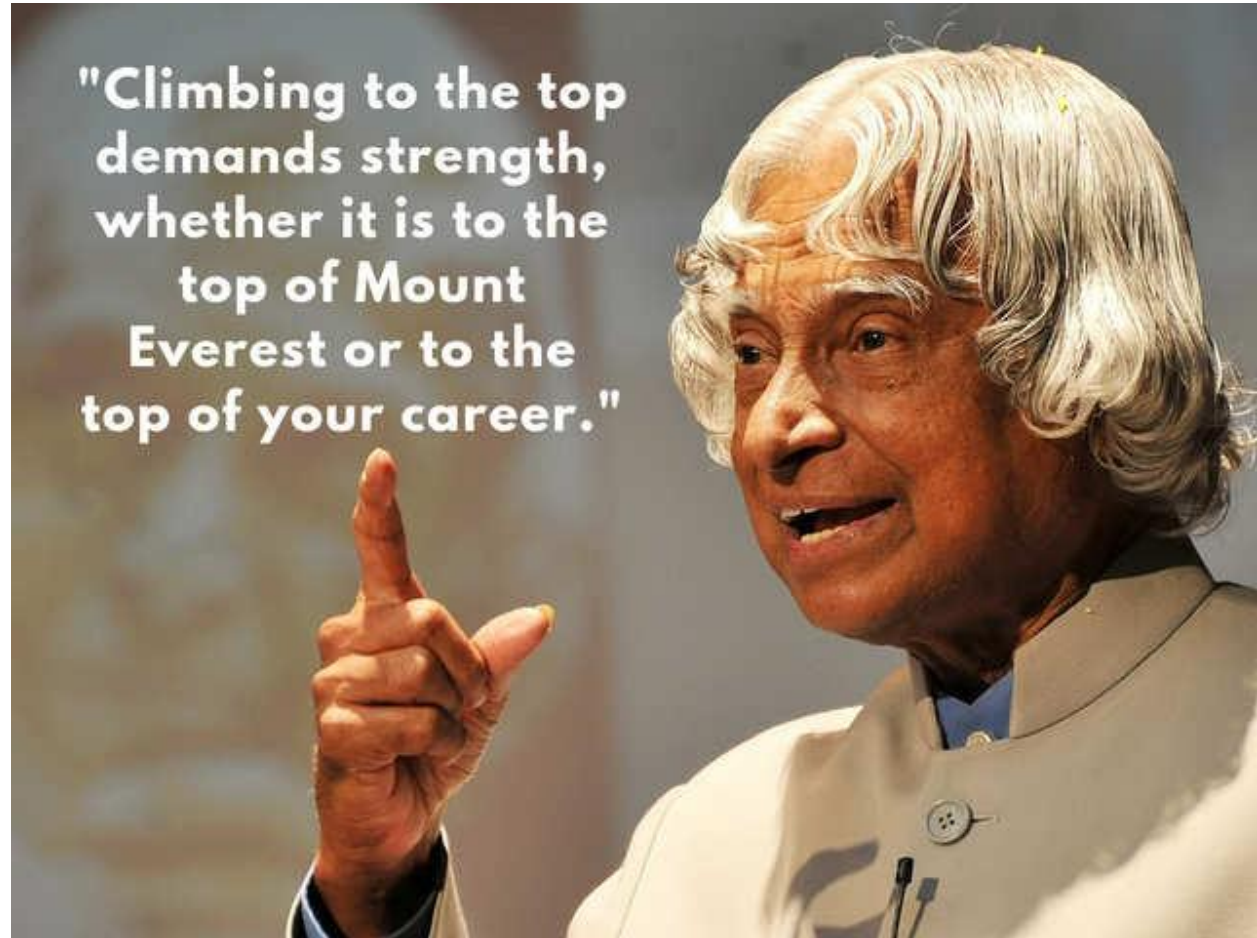
- PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6: The Engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent
- PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

## **PROGRAM EDUCATIONAL OBJECTIVES (PEO)**

- PEO1:** Our graduates will have fundamental technical knowledge and develop core competency in diversified areas of Mechanical Engineering along with Mathematics, Science and other allied engineering subjects in a view to expand the knowledge horizon and inculcate lifelong learning.
- PEO2:** A fraction of our graduates will pursue advanced studies, research and develop products in the field of Mechanical engineering by developing partnerships with industrial and research agencies thereby serving the needs of the industry, government, society and scientific community.
- PEO3:** Our graduates will be capable of building their own career upon a solid foundation of knowledge and with a strong sense of responsibility serve their profession and society ethically.
- PEO4:** Our graduates will be prolific professionals with effective communication, leadership, teaming, problem solving, decision making skills by understanding contemporary issues and improve their overall personality for career development

## **PROGRAM SPECIFIC OUTCOMES (PSOs)**

- PSO1:** Students will be competent in design and analysis of thermal and fluid systems.
- PSO2:** Students will possess the skill to apply design concepts for mechanical structures and systems.
- PSO3:** Students will be able to design and develop industrial products using modern machines in the field of manufacturing.
- PSO4:** Students will be able to use software to solve structural, thermal, fluid and manufacturing problems.



## CALENDAR OF EVENTS 2020

Event No	Date	Event	Remarks
EEC/DME/030	19.01.2022	Live Webinar on Heat Pump by Dr.Antony Aroul raj of Mechanical department	Resource Person : Dr. V. Antony Aroul Raj, Professor, Department of Mechanical Engineering, Easwari Engineering College
EEC/DME/031	12.03.2022	School Outreach program by Mechanical Engineering	Prof. R.Ramadoss, Dr.S.Prasanna Raj, Dr.C. Joel of Mechanical Department, EEC
EEC/DME/032	21.03.2022	Staff Achievement – Consultancy	Dr. V. Antony Aroul Raj, Professor, Department of Mechanical Engineering received Industry Consultancy work worth rupees 45,000 from M/S C G Enterprises, Chennai.
EEC/DME/033	11.03.2022	URBAN WATER MANAGEMENT- PROBLEMS AND PROSPECTS	Mr. J Saravanan, director thrust geoconsultant, Chennai

## **DRDO/CVRDE Sponsored Special Lecture Program**

**As part of**

### **Azadi Ka Amrit Mahotsav**

In commemoration with India's 75<sup>th</sup> Independence, Easwari Engineering College in association with CVRDE/DRDO organized a special lecture program on "An Approach to Product Development" on 16th December 2021 in First Floor seminar hall, Block -5, SRMIST. The dignitaries on the dias were Dr.S.Krishnakumar, Senior Technical officer, CVRDE, Dr.K.Ravichandran, Scientist-E, Robotics Division, Dr.B.Venkatachalapathay, Dean Research, SRM Group of Institutions, Dr. R. S. Kumar, Principal, EEC, Dr. V. Elango, Vice Principal (Academic), EEC, Dr. K. M. Anandkumar, Vice Principal (Admin), EEC, Dr. M. Vetrivel Sezhian, HoD, Mech Dr. S. Sathiyamurthy, HoD, Auto, EEC.





Dr. V.Elango, Vice Principal ( Academic), Easwari Engineering College has welcome the gathering and pointed the main motive of Azadi ka Amrit Mahostav. Also introduces the chief Guests and their achievements.



Dr.M.Anandakumar, Vice Principal (Admin), Easwari Engineering College has given Facilitation address. In his address he elaborated the role of DRDO and CVRDE in the Nation protection. Also he wishes the Chief Guests for their contribution towards making the Lecture Series Success.





**Q&A Session with Dr.K.Ravichandran and Dr.S.Krishnakumar**



**Appreciation from DRDO/CVRDE Officials**



**Lecture by Dr.K.Ravichandran, Sciistnt-E, Robotics Division,CVRDE**



**Vote of Thanks by Dr.M.Vetrivel Sezhian, HOD/MECH,EEC**

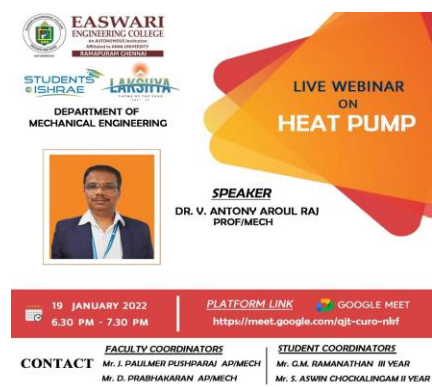
# EEC/DME/030

## Live Webinar on Heat Pump by Dr. Antony Aroul raj of Mechanical department

### Activities at a glance

A hands-on online webinar on the topic “Heat Pump” was conducted by ISHRAE Student Chapter for the students of Easwari Engineering College. The event was graced by our Principal and HOD/Mechanical of Easwari Engineering College. The speaker of the webinar, Dr. V. Antony Aroul Raj, Professor and Research Coordinator Easwari Engineering College started the session. The moto of the event is to nurture the Heat Pump.

### Lecture Reports



**EASWARI ENGINEERING COLLEGE**  
STUDENTS CHAPTER  
ISHRAE  
LAKSHYA LAKSHITA  
DEPARTMENT OF MECHANICAL ENGINEERING

**LIVE WEBINAR ON HEAT PUMP**

**SPEAKER**  
DR. V. ANTONY AROUL RAJ  
PROF/MECH

19 JANUARY 2022  
6:30 PM - 7:30 PM

PLATFORM LINK  
<https://meet.google.com/qjt-curo-nbf>

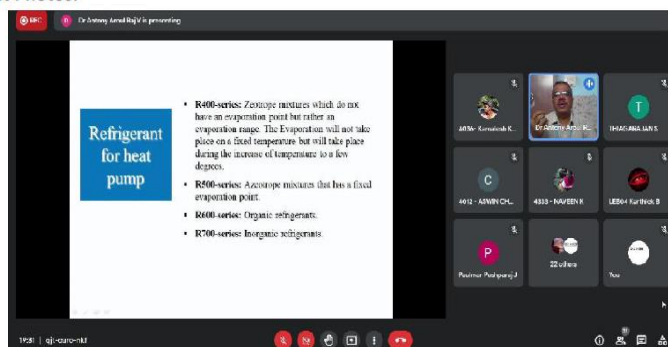
GOOGLE MEET

**CONTACT**

**FACULTY COORDINATORS**  
Mr. J. PAULMER PUSHPARAJ AP/MECH  
Mr. D. PRABHAKARAN AP/MECH

**STUDENT COORDINATORS**  
Mr. G.M. RAMANATHAN III YEAR  
Mr. S. ASWIN CHOICALINGAM II YEAR

### Event Photos:



# EEC/DME/031

## School Outreach program by Mechanical Engineering

### Activities at a glance

On behalf of Department of Mechanical Engineering, conducted a School Outreach Program at Clarence Matric Higher Secondary School, Virugambakkam on "Career Guidance in Engineering & Technology" for XII std students on 12<sup>th</sup> of March 2021. Our Team of Faculty members Prof. R.Ramadoss, Dr.S.Prasanna Raj, Dr.C. Joel organized and spoke at the the Event. The faculty members have received positive feedback from the school.



# EEC/DME/032

## Staff achievements

Congratulations!

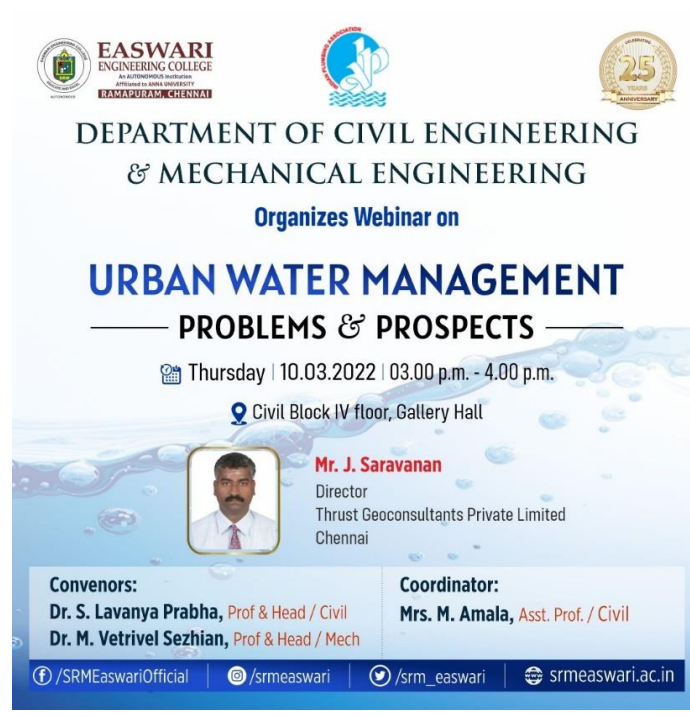
Dr. Antony Aroul Raj, Professor, Department of Mechanical Engineering, Easwari Engineering College and Mr C Hariharan of Automobile Engineering have received an Industry Consultancy work worth rupees 45,000 from **M/S C G Enterprises, Chennai.**



# EEC/DME/033

## SEMINAR ON URBAN WATER MANAGEMENT- PROBLEMS AND PROSPECTS

DATE: 11.03.2022



The poster features the logos of EASWARI Engineering College, the Department of Civil Engineering & Mechanical Engineering, and a 25th Anniversary seal. The text is centered and uses a mix of blue and black fonts. A background image of water bubbles is visible behind the text.


**EASWARI**  
ENGINEERING COLLEGE  
AN ISO 9001:2015 CERTIFIED  
APPROVED BY ANNA UNIVERSITY  
RASAIPET, CHENNAI

**DEPARTMENT OF CIVIL ENGINEERING  
& MECHANICAL ENGINEERING**

**Organizes Webinar on**

**URBAN WATER MANAGEMENT**  
— PROBLEMS & PROSPECTS —

📅 Thursday | 10.03.2022 | 03.00 p.m. - 4.00 p.m.  
📍 Civil Block IV floor, Gallery Hall

 **Mr. J. Saravanan**  
Director  
Thrust Geoconsultants Private Limited  
Chennai

**Convenors:**  
Dr. S. Lavanya Prabha, Prof & Head / Civil  
Dr. M. Vetrivel Sezhian, Prof & Head / Mech

**Coordinator:**  
Mrs. M. Amala, Asst. Prof. / Civil

[f/SRMEaswariOfficial](#) | [@srmeaswari](#) | [/srm\\_easwari](#) | [srmeaswari.ac.in](#)





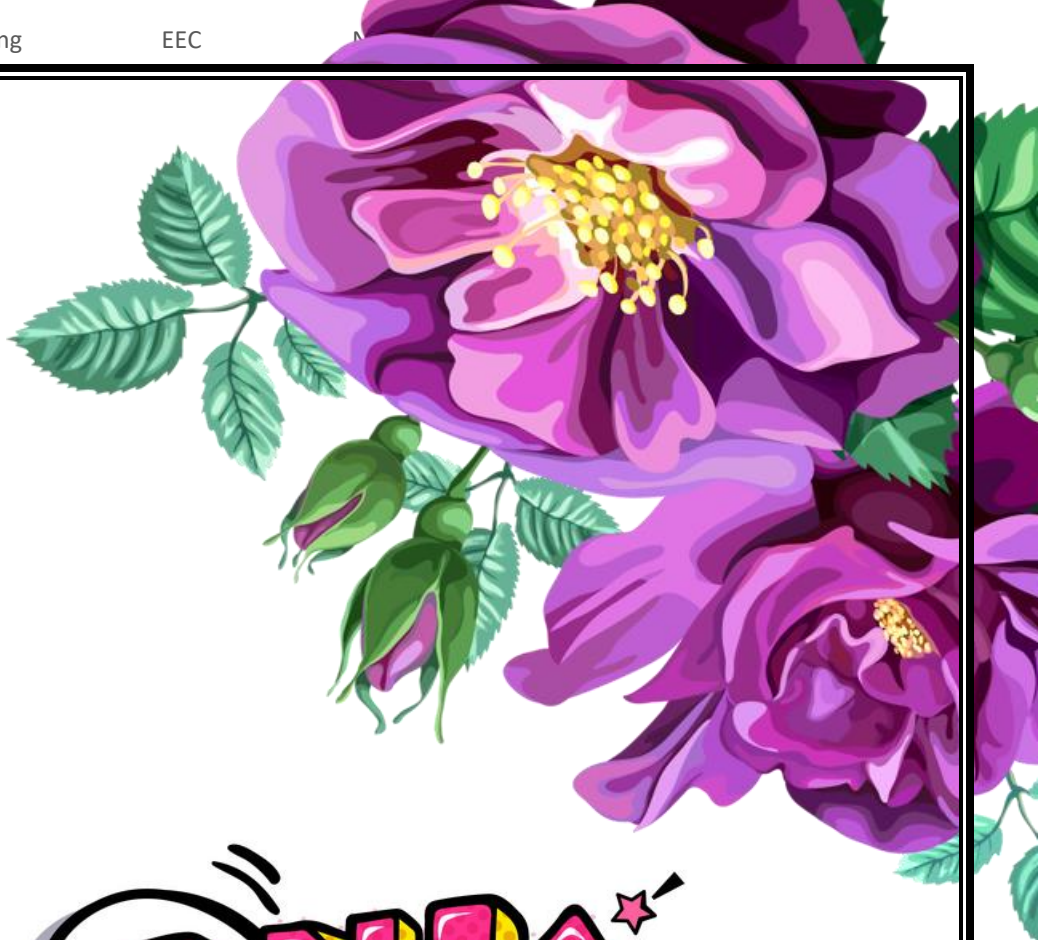
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## NPTEL SCORE

S.NO	NAME	TITLE	SCORE	AWARD
1	Dr. M. Vetrivel Sezhian	Introduction To Industry 4.0 And Industrial Internet Of Things	60	Elite
2	Dr. M. Naresh babu	Mathematical Modelling Of Manufacturing Process	48	completed
3	Dr.K.R. Suresh kumar	Technologies for clean and Renewable energy production	57	completed

## Faculty Publications January – March 2022

Sl. No.	Name of the faculty	Research Paper Title	Index	Impact factor	Month & Year	Volume/ Issue/ Pg. no.	Journal Name
1	Giridharan. K.	Sustainability and Environmental Impact of Ethanol and Oxyhydrogen Addition on Nanocoated Gasoline Engine	SCIE	7.778	Jan-22	Volume 2022	Bioinorganic Chemistry and Applications
2	Prasanna Raj Yadav. S.	Experimental study of feasibility of orange peel oil as a partial replacement for gasoline fuel in SI engine with and without MAO coated piston	SCIE	6.609	Jan-22	Volume 315	Fuel
3	Babu.M	Properties of LM 25-B4Cnp-Grnp Hybrid Composites Manufactured by Selective Laser Melting	SCIE	1.726	Jan-22	Volume 2022	Advances in Materials Science and Engineering
4	Babu. M	Role of cashew shell biochar on EMI shielding behaviour of carbon fibre epoxy nanocomposites in E, F, I and J band microwave frequencies	SCIE	4.987	Mar-22	Volume 2022	Biomass Conversion and Biorefinery
5	Naresh Babu. M, Vetrivel Sezhian. M	Effect of ionic liquid as lubricants in turning H 13 tool steel- an experimental study	SCIE	4.616	Mar-2022	Volume 2022	Materials and Manufacturing Processes
6	Giridharan. K.	Microstructural Analysis and Mechanical Behaviour of Copper CDA 101/AISI-SAE 1010 Dissimilar Metal Welds Processed by Friction Stir Welding	SCIE	1.524	Jan-22	Volume 25	Materials Research



**THANK YOU**

