

**EASWARI
ENGINEERING COLLEGE**

An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY

RAMAPURAM CHENNAI

DEPARTMENT OF
MECHANICAL ENGINEERING

NEWS

LETTER

APRIL - JUNE 2021

CHEIF EDITOR:

DR. M VETRIVEL SEZHIAN
PROF & HEAD MECH

FACULTY :

Mr. K KARTHIKEYAN
ASST.PROF
MECHANICAL DEPARTMENT

STUDENT EDITORS

Kokul Aananth KK 310617114066

Nishan S 310618114071

Vignesh K 310619114103



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.

EASWARI ENGINEERING COLLEGE

Department of Mechanical Engineering

List of Events (2021)

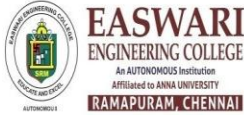
Event No	Date	Event	Remarks
EEC/DME/001	07.04.21	Exploring the opportunities in Fire security association of India	Mr.K.Balasubramanian , Chairman, FSAI, Student chapter development
EEC/DME/002	10.04.21	Tribological Challenges – Industry Perspective	Dr.N.L.Parthasarathi, Scientist E, IGCAR kalpakkam
EEC/DME/003	28.04.21	Talent Hunt 2021	Student competitive event
EEC/DME/004	11.05.21	MARS – Technical Quiz	Student quiz event – Part of college outreach program for polytechnic college students
EEC/DME/005	19.05.21	Professional Society Inauguration - ISHRAE INAUGURATION	Guest: Mr. Amithaba Sur, National President of ISHRAE

EASWARI ENGINEERING COLLEGE

Department of Mechanical Engineering

List of Events (2021)

Event No	Date	Event	Remarks
EEC/DME/006	27.05.21	Webinar - Oxygen Production and Distribution	Guest Speaker: Dr. V. Antony Aroul Raj, Professor, Department of Mechanical Engineering, Easwari Engineering College
EEC/DME/007	05.06.21	K-12 Quiz Competition - 2021 Virtual Olympiad Competition	Student Quiz program
EEC/DME/010	03-06-21	Colorful Minds - Drawing Competition	Student drawing competition
EEC/DME/011	10-06-21	A webinar on Employability enhancement for graduate engineers	Resource person – Dr.M.Vetrivel Sezhan, HOD- Mech , EEC
EEC/DME/012	26-06-21	Quiz Competition	Student quiz competition



DEPT. OF **MECHANICAL & CIVIL ENGINEERING**

LIVE WEBINAR

**Exploring the Opportunities
in Fire Security Association of India (FSAI)**

📅 07-04-2021, Wednesday & 4.00 PM – 5.00 PM



Mr. K. Balasubramanian
Chairman
FSAI Student Chapter Development

📄 Google Meet <https://meet.google.com/yuo-sgif-btz>

CONVENORS

Dr.M. Vetrivel Sezhian, Prof. & Head / MECH
Dr.S.Lavanya Prabha, Prof. & Head / CIVIL

COORDINATOR

Mr.B.Gopinath, Asst. Prof. /MECH

📧 /srmeaswarimech

🌐 mech.srmeaswari.ac.in

Exploring the opportunities in Fire security association of India

The event was conducted in online mode and about participants, 94 students attended this event. This event has helped all the students to update their knowledge of the opportunities in the fire security association for budding engineers.




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 RAMAPURAM, CHENNAI

Department of
MECHANICAL
ENGINEERING

LIVE Webinar

Tribological Challenges

Industry Perspective

 10.04.2021
  11.00 AM to 12.00 Noon


Dr. N. L. Parthasarathi
 Scientific Officer E
 Materials Development & Technology Division
 IGCAR, Kalpakkam

Registration: <https://forms.gle/bpgXwAjdWdJaAgh98>

 Google Meet meet.google.com/dia-zidk-szn

Convenor:
 Dr. M. Vetrivel Sezhian
 Professor & Head / Mech

Co-ordinators:
 Dr. M. Naresh Babu, *Asso. Prof. / Mech*
 Mr. V. M. Jothiprakash, *Asst. Prof. / Mech*
 Dr. D. Peter Pushpanathan, *Asso. Prof. / Mech*

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Tribological Challenges – [Industry Perspective]

The event was conducted in online mode and about participants, 123 students attended this event. This event has helped all the students to understand the Tribological Challenges on the perspective of the industry.

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RAMAPURAM, CHENNAI

DEPARTMENT OF
MECHANICAL ENGINEERING
ROBOTICS & AUTOMATION
ENGINEERING

Presents

T★LENT
HUNT 2021

Solo Singing
Any Language
(Video Recording)

Short Film
Good Message to
the Society

Photography
Theme
Monochrome

**Painting /
Drawing**
Theme
Dream House

Exclusively for 10th, +1, +2 & Diploma Final year student
1st & 2nd Place will be awarded, E-Certificate will be provided for Participation

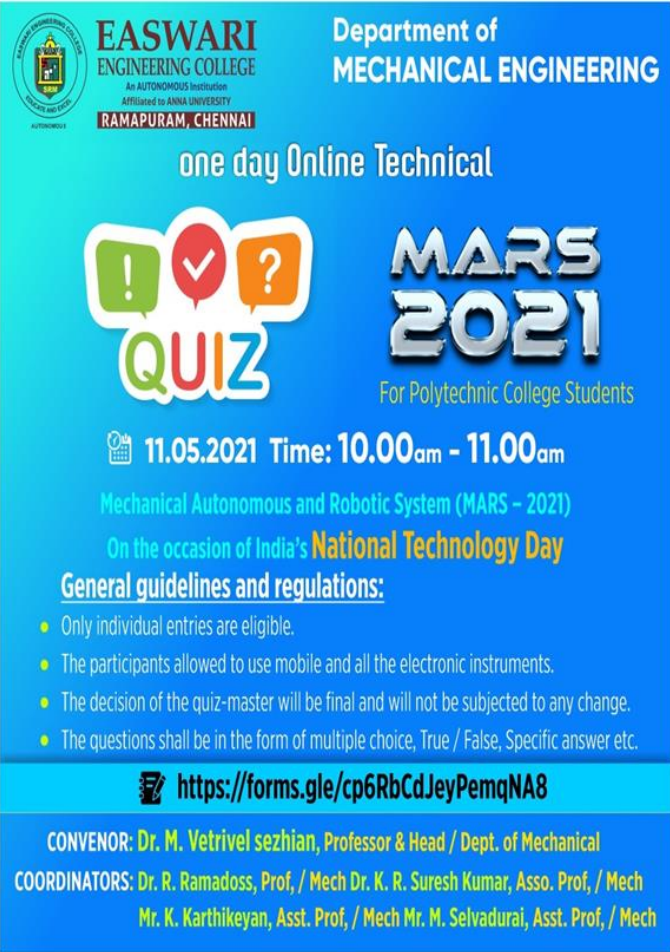
Last Date: 28-04-2021, Time: 05:00 PM | <https://forms.gle/CpVm7TX4jr3hzLc26>

CONVENOR | COORDINATOR
Dr. M. Vetrivel Sezhan | Mr. C. Joel, Asst. Prof. / Mech
Professor & Head / Mech | Mrs. K. K. Naga Chandrika, Asst. Prof. / Mech
Mr. K. Giridharan, Asst. Prof. / Mech

[f /SRMEaswariOfficial](#) | [@srmeaswari](#) | [/srm_easwari](#) | srmeaswari.ac.in

Talent Hunt 2021

The event was conducted in online mode and about participants, 96 students attended this event. This event has helped all the students to exhibit their hidden talents and escape their lockdown boredom.



The poster is for a quiz event. At the top left is the logo of EASWARI ENGINEERING COLLEGE, an autonomous institution affiliated to ANNA UNIVERSITY, located in RAMAPURAM, CHENNAI. To the right of the logo, it says 'Department of MECHANICAL ENGINEERING'. Below this, it reads 'one day Online Technical'. The central graphic features three speech bubbles containing an exclamation mark, a checkmark, and a question mark, with the word 'QUIZ' written below them. To the right of this graphic, 'MARS 2021' is written in large, bold letters, with 'For Polytechnic College Students' underneath. The date and time are given as '11.05.2021 Time: 10.00am - 11.00am'. Below this, it says 'Mechanical Autonomous and Robotic System (MARS - 2021)' and 'On the occasion of India's National Technology Day'. A section titled 'General guidelines and regulations:' lists four bullet points: only individual entries are eligible; participants can use mobile and electronic instruments; the quiz-master's decision is final; and questions are multiple choice, true/false, or specific answer. At the bottom, a URL is provided: <https://forms.gle/cp6RbCdJeyPmqNA8>. The convener is Dr. M. Vetrivel sezhan, Professor & Head / Dept. of Mechanical. Coordinators are Dr. R. Ramadoss, Prof. / Mech Dr. K. R. Suresh Kumar, Asso. Prof. / Mech Mr. K. Karthikeyan, Asst. Prof. / Mech Mr. M. Selvadurai, Asst. Prof. / Mech.

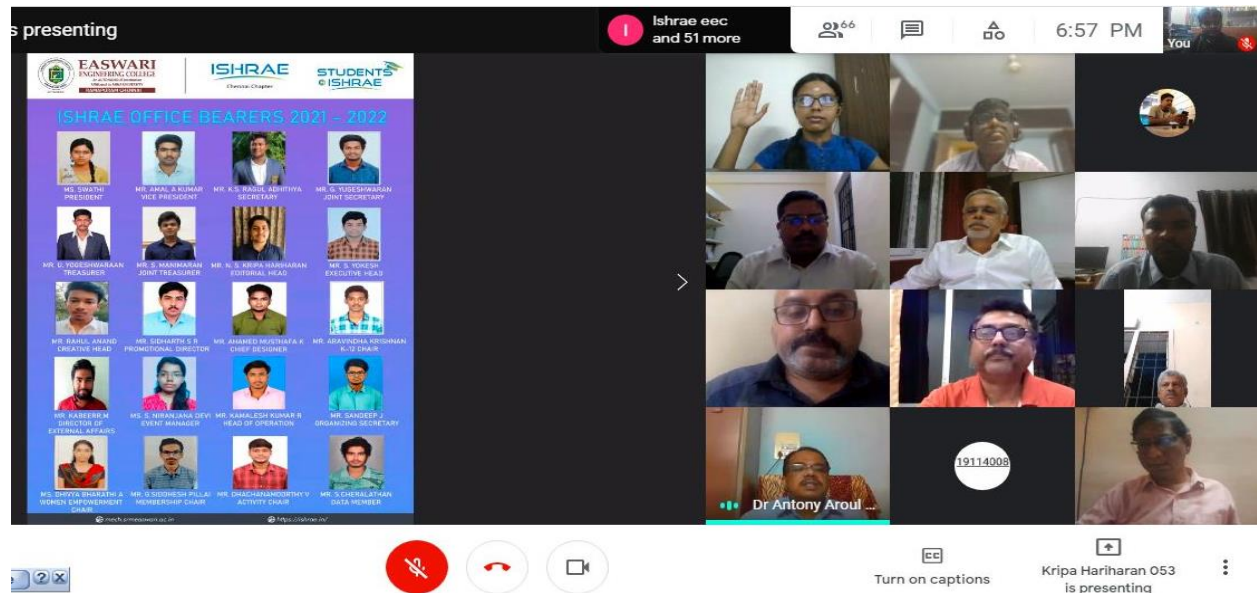
MARS – Technical Quiz

This event was conducted on the occasion of National Technology Day which remembers the heroics of Dr. A. P. J. Abdul Kalam and his team who successfully tested a Nuclear missile on May 11th, 1998, and made India a Nuclear powerhouse. This event has been conducted online mode and 150 participants attended this event. This event has helped all the students to get their brains busted with innovative questions.

ISHRAE Inauguration 2021 -2022

“A JOURNEY OF HUNDRED MILES STARTS WITH A SINGLE STEP”

ISHRAE INAUGURATION 2021 -2022



One of the successful collegiate clubs of the Dept of Mechanical Engineering had its fuel recharged and started its new tenure in 2021-2022 for more grace and honors. The inauguration took place online with such grace added to it with Mr. Amithabha Sur National President of ISHRAE & Mr. N. S. Chandrasekhar National President-Elect of ISHRAE & all other dignitaries from the National and Chennai chapter.

ISHRAE OFFICE BEARERS 2021 - 2022

 MR. DHINESHAJ N EXECUTIVE MEMBER	 MR. MOHAMED SAHIL A ACTIVITY CHAIR	 MR. RAMANATHAN G M EXECUTIVE MEMBER
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ORGANISING COMMITTEE

 DR. V. ANTONY AROUL RAJ PROFESSOR - MECHANICAL EASWARI ENGINEERING COLLEGE ZONAL CHAIR - SOUTH INDIA ISHRAE STUDENT ACTIVITIES	 MR. S. THIAGARAJAN ASSISTANT PROFESSOR - MECHANICAL EASWARI ENGINEERING COLLEGE
 MR. J. PAULMAR PUSHPARAJ ASSISTANT PROFESSOR - MECHANICAL EASWARI ENGINEERING COLLEGE	

mech.srmeaswari.ac.in <https://ishrae.in/>








DEPARTMENT OF MECHANICAL ENGINEERING
ISHRAE STUDENT CHAPTER
 PRESENTS
EXPERT TALK ON THE TOPIC
OXYGEN PRODUCTION AND DISTRIBUTION
 27th May 2021 6.00 PM - 7.00 PM


SPEAKER DETAILS
Dr. V. ANTONY AROUL RAJ
 Professor, Department Of
 Mechanical Engineering,
 Easwari Engineering College,
 Zonal chair - South India ,
 ISHRAE Student Activities.

PLATFORM LINK

<https://meet.google.com/ngo-bfgx-fyn>
FOR FURTHER QUERIES:

FACULTY IN CHARGE MR. S. THIAGARAJAN 9600576943	STUDENT IN CHARGE MR. K. S. RAGHUL ADHITHYA 9791058154
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mech.smeaswari.ac.in
<https://ishrae.in/>

OXYGEN PRODUCTION AND DISTRIBUTION


The event was conducted online mode and about participants, 84 students attended this event. In this meeting, Dr. V. Antony Aroul Raj, Professor, Dept of Mechanical Engineering explained the ways to produce oxygen and all the other ways to distribute them efficiently. He helped the students to get an in-depth knowledge of how one can produce oxygen.

OXYGEN PRODUCTION AND DISTRIBUTION


- After hydrogen and helium, oxygen is the third-most abundant element in the universe by mass.
- Oxygen gas currently constitutes 20.95% of the Earth's atmosphere, though this has changed considerably over long periods of time.
- Oxygen makes up almost half of the Earth's crust in the form of oxides

Dr V ANTONY AROUL RAJ
 Professor
 Department of Mechanical Engineering






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RAMAPURAM CHENNAI



LAKSHYA
THEME OF THE YEAR
2021-22



STUDENTS
ISHRAE

AN OPPURTUNITY TO TEST YOUR KNOWLEDGE !

ISHRAE STUDENT CHAPTER PRESENTS

2021 VIRTUAL OLYMPIAD

PHYSICS

MATHEMATICS

CHEMISTRY

EXCLUSIVELY FOR 11th AND 12th STUDENTS

SCAN THIS QR CODE

DATE : 05/06/2021
30 QUESTIONS 45 MINUTES
E - CERTIFICATES WILL BE PROVIDED

REGISTRATION CLOSES ON 04/06/2021

Register here: <https://qrqo.page.link/HbzLo>

CONTACT

STAFF COORDINATOR
MR. J. PAULMER PUSHPARAJ
93443 40027

STUDENT COORDINATOR
MR. G. SIDDHESH PILLAI
91769 94333

mech.srmeaswari.ac.in

<https://ishrae.in/>

2021 Virtual Olympiad Competition K-12 QUIZ COMPETITION

The event was conducted online mode and about participants, 75 students attended this event. This event was conducted on the main moto to increase the student's enthusiasm for STEM. All the 11th & 12th-grade students made the Olympiad a grand success by showing a great sport.



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LAKSHYA
THEME OF THE YEAR
2021-22



STUDENTS
ISHRAE

ISHRAE STUDENT CHAPTER

VIRTUAL OLYMPIAD RESULTS

05.06.2021

CONGRATULATIONS WINNERS

1st

Mohamed Taufeeq
12th Standard
Bethel Matriculation
Higher Secondary School
Ayanavaram, Chennai.

2nd

Adithya K
12th Standard
St. Britto's Academy
Velachery, Chennai.

3rd

Rajadurai S
12th Standard
Adhiparasakthi
Matriculation Higher
Secondary School
Melvaruvathur.

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LAKSHYA LAKSHITA
TRADE OF THE YEAR
2021-22

ISHRAE STUDENTS ISHRAE
Chennai Chapter

DEPARTMENT OF MECHANICAL ENGINEERING
ISHRAE STUDENT CHAPTER
PRESENTS
ONE WEEK ONLINE WORKSHOP ON
ENERGY SIMULATION AND CFD ANALYSIS IN BUILDINGS

From 28th June 2021 to 4th July 2021 Every Day 6.30 PM to 7.30 PM

RESOURCE PERSON
Dr. V. ANTONY AROUL RAJ
Professor, Mechanical Engg.
Easwari Engineering college
Zonal Chair - South India
ISHRAE Student Activities

REGISTRATION LINK
SCAN THIS QR CODE
<https://qrqo.page.link/eLLMW>

TOPICS TO BE COVERED

28-06-2021	ENERGY SIMULATION PROCEDURE
29-06-2021	COOLING & HEATING DESIGN
30-06-2021	YEAR - ROUND SIMULATION
01-07-2021	CFD BASICS
02-07-2021	EXTERNAL CFD
03-07-2021	INTERNAL CFD
04-07-2021	COMFORT INDICES IN CFD

FOR FURTHER QUERIES:

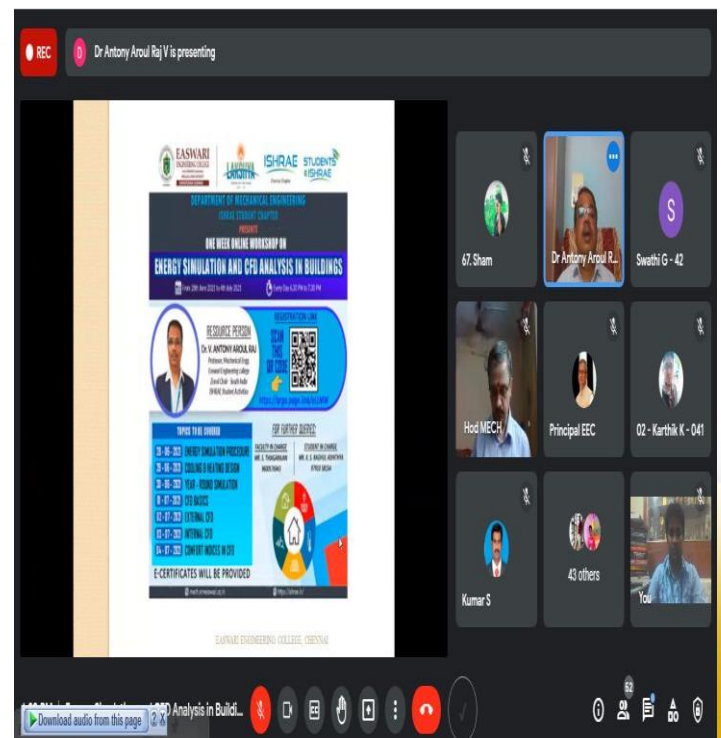
FACULTY IN CHARGE	STUDENT IN CHARGE
MR. S. THIAGARAJAN 9600576943	MR. K. S. RAGHUL ADHITHYA 97910 58154

E-CERTIFICATES WILL BE PROVIDED

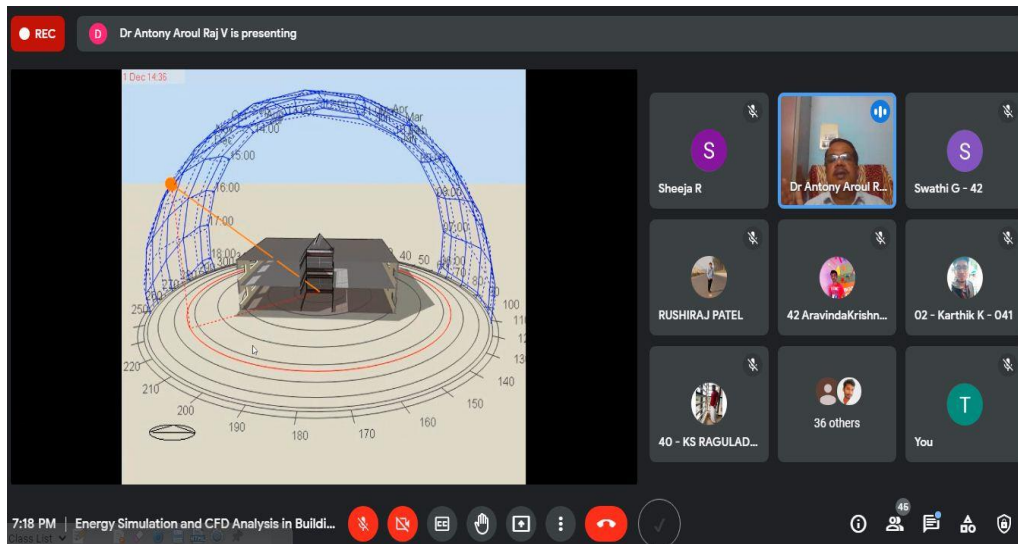
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Energy Simulation and CFD Analysis in Buildings

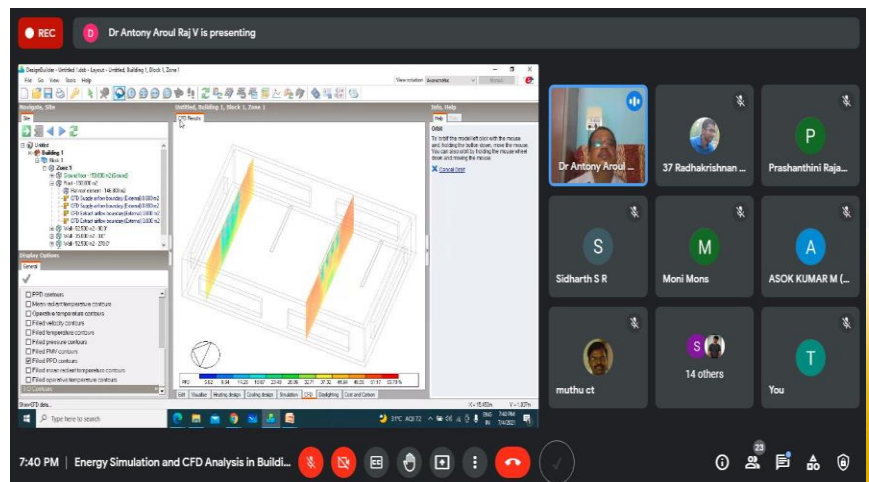
The event was conducted online mode and about participants, 90 students attended this event. This event was conducted to provide a brief knowledge on the topic of Energy Simulation and CFD Analysis in Buildings. This was a 5-day workshop.



Energy Simulation and CFD Analysis in Buildings



In this workshop, Dr. V. Antony Aroul Raj, Professor, Dept of Mechanical Engineering explained all the Technical and industry-related stuff of the Energy simulation and CFD analysis. He also explained how to do a simulation of building in software. This workshop helped all the students to get a broad understanding of how Energy Simulation and CFD Analysis are done.





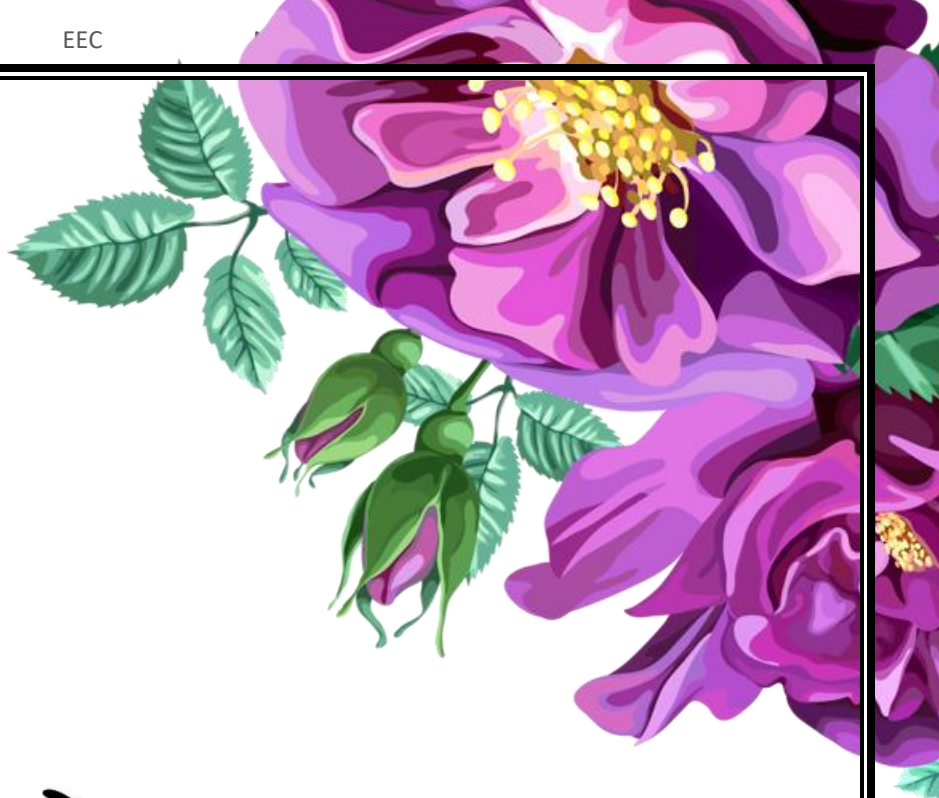
EXTRA & CO - CURRICULAR ACTIVITIES FOR ACADEMIC YEAR 2020 -21

(APRIL - JUNE)

S.NO	Name of the Student	Year & Sec	Name of the Event	Name of the Institute/University/Industry Organized	Award/ Participation	Date
1.	Aditya Menon	I A	International workshop on 3D printing	Department of Analytical Chemistry, University of Madras, Guindy Campus, Chennai, Society for Biomaterials and Artificial Organs India (SBAOI) - Chennai Chapter, Indian Society of Analytical scientists-Tamil Nadu	participation	09/04/2021
2.	SABARINIVAS.A	III C	IGNITION 2K21	Sri Venkateswara College of Engineering	2nd PLACE	05/21/2021
3.	Karthikeshwar	III A	Workshop - Energy Simulation and CFD Analysis in Building by ISHRAE	Easwari Engineering College	Participation	06/28/2021
4.	Karthik K	III B			Participation	06/28/2021
5.	Srikrishnan	III C			Participation	06/28/2021
6.	Sidharth S R	III C			Participation	06/28/2021
7.	Srikrishnan	III C			Participation	07/04/2021

Faculty Publications April – June 2021

Sl. No.	Name of the faculty	Research Paper Title	Index	Impact factor	Month & Year	Volume/ Issue/ Pg. no.	Journal Name
1	Giridharan. K., Gurijala. C.,	Biochar-assisted copper-steel dissimilar friction stir welding: mechanical, fatigue, and microstructure properties	SCIE	4.987	April 2021	Volume 2021	Biomass Conversion and Biorefinery
2	Omsakthivel .U	Performance and emission characteristics of a micro-gasifier-based cook stove using solid biomass, meliadubia and casuarina	SCIE	0.87	April 2021	Volume 45, Issue 4, Pages 573-583	Transactions of the Canadian Society for Mechanical Engineering
3	Ramadoss. R.	Studies on mechanical properties and characterization of carbon fiber reinforced hybrid composite for aero space application	Scopus	1.46	May 2021	Volume 47, Pages 4438- 4443	Materials Today: Proceedings



THANK YOU