



RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University

Accredited by NAAC & An ISO 9001: 2015 Certified Institution

NBA Accredited UG Programs: CSE, EEE, ECE and MECH

Academic Year 2023-24 (Odd Semester)

Details of Programme Organized

Sl.NO	Contents	Details
1.	Title of the programme	"Sustainable materials for Environmental Remediation Applications"
2.	Programme Theme	Innovative Teaching
3.	Programme Type	Seminar
4.	Details of Resource Person	Dr. G. Saravanan, Principal Scientist, CSIR-NEERI, Chennai.
5.	Mode & Venue / Platform	Mechanical Seminar Hall
6.	Date & Duration	09.08.2023 (Wednesday) & 1 hour 30 minutes
7.	No. of Student Participants	73
8.	No. of Faculty Participants	6
9.	No. of External Participants	Nil
10.	Expenditure Amount (if any)	Nil
11.	Registration Link	Nil

12. Objective of the Programme:

- To enhance the knowledge in automobile basics in Mechanical Engineering.
- To learn energy consumption in India.
- To apply Fossil fuels and Carbon emissions in recent field.
- To apply thermodynamics second law to solve engineering problem.

13. Detail Description of the activity:

Extramural lecture series (ELS)-NT011- Seminar titled “Sustainable materials for Environmental Remediation Applications” was organized by Department of Mechanical Engineering, Ramco Institute of Technology, Rajapalayam on **09.08.2023 (Wednesday)**. The main objective of these ELS is to impart knowledge about Sustainable Materials real time Application in Environmental. Dr. G. Saravanan, Principal Scientist, CSIR-NEERI, Chennai acted as a resource person for this programme. Dr.V.Siva kumar, ASCP/Mech delivered welcome address and introduced the resource person of this event. He detailed about the schedule of event. The resource person explained the following Concept

- CSIR-NEERI: Organisational Structure
- Taking Science to Industry & Society through our R&D Areas
- International Projects with UN, WHO, IPCC
- Chennai Zonal Centre (CZC) (CSIR-NEERI)
- Research Area: Energy and Environmental remediation materials
- CSIR-NEERI Temporary RACE Facility
- Energy status (Consumption : Production : Projection) in India
- Global mean temperature vs. Fossil fuels use vs. Carbon emissions
- Diesel as Fuel and its Impacts
- Impacts of Particulate matters (PM) on Health and Environment
- Diesel Emission Regulations
- After-treatment Emission control technologies
- Diesel Oxidation Catalyst
- Diesel Particulate Filter
- Partial Oxidation Catalysts / Partial Flow Filter
- PGM use and its limitations
- Criteria for Catalyst Design
- Synthesis of Intermetallic Catalysts
- Characterization of Intermetallic Pt₃Ti Nanoparticles
- Particulate matter Composition and Formation
- Why Perovskites?
- Strontium Ferrites (SFO) based Perovskite Catalysts

- Mn-Impregnated Strontium Ferrite (SFO)
- Multi-cyclic Catalytic Activity
- Decentralized power and Fuel cells

The Resource person explains the Energy and Environmental remediation materials. He concludes his session with through a detailed impacts of Particulate matters (PM) on Health and Environment. At the end of the session participants clarified their doubts. Mr.R.Prabhakaran, AP/Mech acted as a moderator for the session. Dr.M.Lakshmanan, delived the vote of thanks. Dr.V.Siva kumar and Mr. S.Kathiravan acted as coordinators. Out of which 79 participants from various department faculties and Students actively participated in this programme.

14. Banner / Flyer of the Programme:



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 Department of Mechanical Engineering
EXTRAMURAL LECTURE SERIES(ELS) - NT011

"SUSTAINABLE MATERIALS FOR ENVIRONMENTAL REMEDIATION APPLICATIONS"

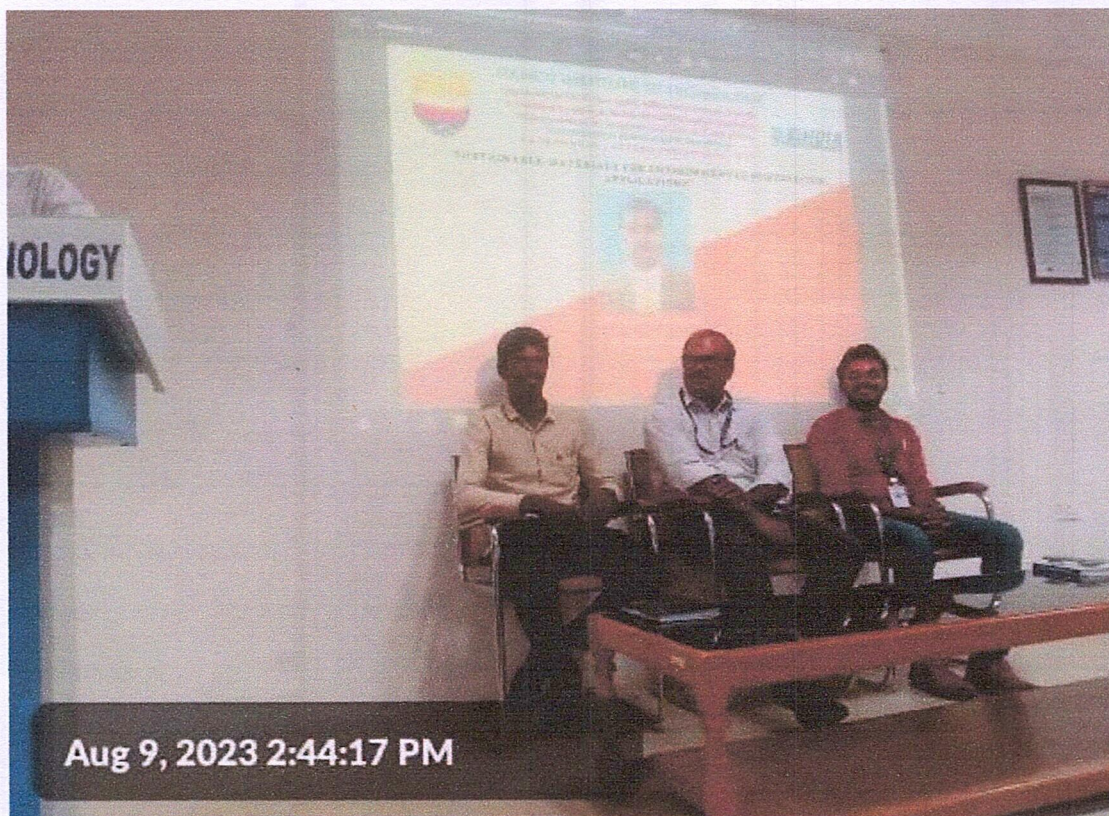
Dr. G. SARAVANAN
 Principal Scientist,
 CSIR-NEERI,
 Chennai.

Date : August 09, 2023
 (Wednesday)
 IST: 02.30 P.M to
 03.30 P.M

Venue: Mechanical Seminar Hall

COORDINATOR Dr.V.Sivakumar,ASCP/Mech Mr.S.Kathiravan,AP/Mech	CONVENER Dr.M.Lakshmanan AP(SG)/Mech	PATRON Dr.S.Rajakarunakaran Vice Principal & Head /Mech	CHIEF PATRON Dr.L.Ganesan Principal
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15. Programme Photographs:





M. Ramar
17/8/23
Prepared by
(M.Ramar, AP/Mech)

[Signature]
17/8/23
Approved by
(HOD/Mech)