



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 2021 – 2022 (Odd Semester)

Details of Programme Organized

Sl. No.	Contents	Details
01.	Title of the programme	"Nanofluids in solar energy: Applications and challenges"
02.	Programme Theme	Others
03.	Programme Type	Webinar
04.	Details of resource person	Dr.Fadl Abdelmonem Elsayed Essa, Mechanical Engineering Department, Faculty of Engineering, Kafrelsheikh University, Egypt.
05.	Mode & Venue / Platform	Google Meet
06.	Date & Duration	06.05.2021 & 1 hour
07.	No. of Student Participants	70
08.	No. of Faculty Participants	76
09.	No. of External Participants	110
10.	Expenditure amount (if any)	NIL
11.	Social Media URL	https://www.youtube.com/watch?v=pi0FjdSm4rQ
12.	Video URL (if any)	https://www.youtube.com/watch?v=pi0FjdSm4rQ

13. Objective of the Programme:

- To impart knowledge on cutting edge technologies to the students and to upgrade the expertise of the faculty members in mechanical engineering field.

14. Detail description of the activity:

Extramural Lecture Series on the topic "Nanofluids in solar energy: Applications and challenges" was organized by Department of Mechanical Engineering, Ramco Institute of Technology, Rajapalayam on 06.05.2021. The main objective of this ELS is to impart knowledge about Nanofluids in solar energy: Applications and challenges. The Resource Person was Dr.Fadl Abdelmonem Elsayed Essa, Mechanical Engineering Department, Faculty of Engineering, Kafrelsheikh University, Egypt.

He discussed about energy sources available in the earth surface and the importance of renewable energy sources. He shared about how to use the solar energy?. He told about Nanofluid application in solar energy systems. He discussed about different types of solar collectors such as Flat plate, Evacuated tube, Cylindrical, Conical, Parabolic and Triangular, Photovoltaic/Thermal systems, Solar Thermoelectric devices, Solar water heaters, Units solar geothermal, Systems Green houses and Water Desalination system. He shared the current challenges available in this forum and given conclusion with notable future work to be carried out in this field.

The total no. of participants was 15 out of 146 from RIT faculties, 47 from other college students and 61 other college faculties. The entire sessions were interactive where faculties raised their doubts and a precise explanation was given by the resource person. The overall feedback of the program was good. Finally, the participants were distributed with the certificates.

15. Banner / flyer of the programme:



RAMCO INSTITUTE OF TECHNOLOGY

North vengannallur Village, Rajapalayam - 626 117

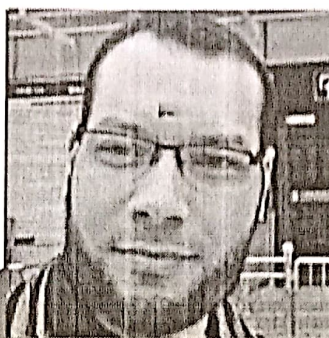
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Department of Mechanical Engineering

EXTRAMURAL LECTURE SERIES(ELS) - INT001

NANOFLUIDS IN SOLAR ENERGY: APPLICATIONS AND CHALLENGES

Research Credentials



Dr. Fadl A. Essa

Assistant Professor
Department of Mechanical Engineering
Faculty of Engineering
Kafrelsheikh University
Egypt

Date : May 6, 2021
(Thursday)
IST: 02.00 P.M.
Calro Time: 10.30 A.M.



<https://youtu.be/pl0EjdSm4rQ>

Registration Link : <https://tinyurl.com/Nanofluids>

COORDINATOR
Dr.V.SIVAKUMAR
ASSOC. PROF./MECH

CONVENER
Dr.P.SURESHKUMAR
ASSOC. PROF./MECH

PATRON
Dr.S.RAJAKARUNAKARAN
VICE PRINCIPAL & HEAD /MECH

CHIEF PATRON
Dr.L.GANESAN
PRINCIPAL

16. Programme Photographs: (Two Photographs)

REC Fadi A. Essa is presenting

Kafrelsheikh University

Press Esc to exit full screen

INSTITUTE OF TECHNOLOGY

 **Nanofluids in Solar Energy: Applications and Challenges.** 

Prepared by:

Ass. Prof./ Fadi A. Essa

Assistant professor of mechanical engineering

Kafrelsheikh, Egypt

2021

Meeting details ^

Activate Windows
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Raise hand Turn on captions Fadi A. Essa is presenting

REC Fadi A. Essa is presenting

Press Esc to exit full screen

CONCLUSION AND FUTURE WORK

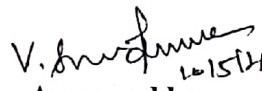
- More theoretical investigations are required to understand the mechanisms of the heat transfer enhancement using nanofluids in different solar based systems.
- The superior thermo-physical properties of nanofluids result in a significant enhancement in the heat transfer process, which in turn result in reducing the size of the solar devices.
- The high production cost of nanofluids and its stability are main factors that hinder its use in commercial and industrial applications.
- Many economical and environmental benefit

Meeting details ^

Activate Windows
Go to Settings to activate Windows.

Free hand Turn on captions Fadi A. Essa is presenting


Prepared by


Approved by



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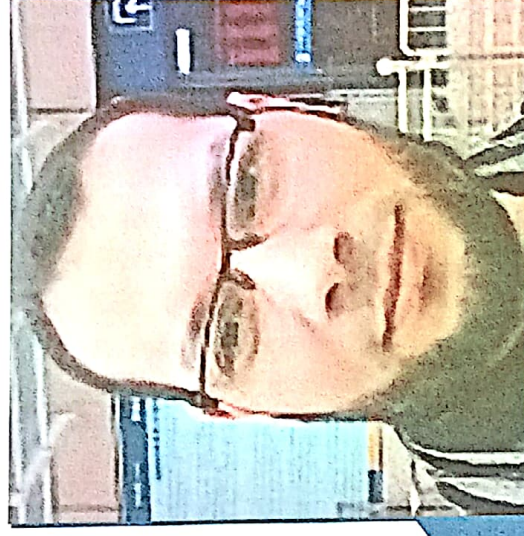
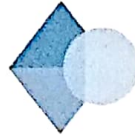
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