



The Institution of Engineers (India)

(ESTABLISHED 1920, INCORPORATED BY ROYAL CHARTER 1935)

8 GOKHALE ROAD, KOLKATA – 700 020

(Lecture /Paper presentation/Seminar//Workshop/Conference/Technical/Project Demonstration/Model competition/Poster Competition/Group Discussion/Technical Quiz/Aptitude Test/Technical Visit/Film show/Display of Technical Information/Short term course)

Title /Theme: - Extramural Lecture Series (ELS) - NT007 “HYDROGEN AND ITS APPLICATIONS”

Date : 19.06.2022

Duration: 1 Hour (03.00 PM to 04.00 PM)

No. of Students and Faculties Participated: 44 participants

Photographs with caption:

(Activity reports not supported by photographs shall not be considered for award)

The screenshot shows a Google Meet interface during a presentation. The main window displays a slide titled "RAMCO INSTITUTE OF TECHNOLOGY, RAJAPALAYAM Department of Mechanical Engineering Organizing Extramural lecture series (ELS) – NT007 HYDROGEN AND ITS APPLICATIONS". The slide also mentions "Shri. Rajan Varshney Deputy General Manager, NTPC, Farakka" and the date "Date: 19.06.2022 (Sunday) IST: 03.00 PM to 04.00 PM". A small video of the presenter is visible in the bottom right corner of the slide. To the right of the slide is a grid of participant video thumbnails. The participants listed are: RIT-MECH ICSTA-22, Rajan Varshney, Rajan Varshney, Meharaibegum A, Anith Rajaseelan, Parvesh choudhary, Sakthivel Lakshman..., 13 others, and You. The bottom of the screen shows the Windows taskbar with the time 2:56 PM and date 6/19/2022.

Climate Change: GHG Effects: Rise in Temp. Pollution, COVID, Weather Extremities

Climate Change Impact



Australian Wildfires



Polar Vortex: -46°C as Chicago River turns to ice



London Floods



Heat Wave in Europe



Drought in Africa



Glacier Burst & Flash Floods

Deep-Decarbonisation/Clean air, Water /Waste Management -- a must for Survival

Weather extremities and affecting Land ,soil, air, water etc.

Low productivity, ill-health & untimely deaths. Unproductive expenditures, Cumulatively Lower GDP

Changing weather patterns affecting our crop yields & farming practices

Temperature Rise has to be limited to **1.5°C** by 2100

IPCC 6th report 10Aug21 : Already 1.0°C and

At current rate 1.5°C / 2°C may be breached by 2030/40

■ H2 is part of any Decarbonisation Solution

Applications: Power to H2 to Industry

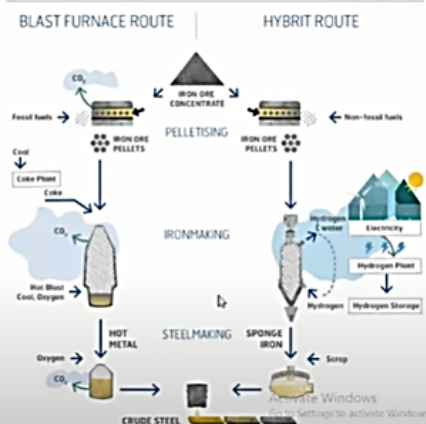
Typical Installations:

➤ Float glass industry, Turkey: 1 MW electrolyser

➤ Steel industry, Kirovgrad, Russia: 4 MW electrolyser

HYBRIT - World's first fossil-free steel-making technology Already Sample Delivered Aug 21

- Vattenfall (one of Europe's largest electricity producers)
- LKAB (Europe's largest iron ore producer)
- SSAB (global leader in high-strength steels)



**Details:****Chief Guest/ Guest of Honor:** Nil**Designation:** Nil**Speaker 1:** Shri. Rajan Varshney**Designation/Organization:** Deputy General Manager, NTPC, Farakka**Report***(maximum 250 words)*

The Department of Mechanical Engineering organized Extramural lecture series (ELS)- NT007 - Online webinar titled “HYDROGEN AND ITS APPLICATIONS” on 19.06.2022 for all the faculty members (Internal & External) in various Engineering Colleges.

Mr.L.Karthikeyan, AP/Mech delivered welcome address and Dr.J.Jabinth, AP/Mech introduced the resource person of this event. He detailed about the schedule of event.

The resource person explained that hydrogen has a vital role to play in Deep de-carbonization/clear air, and water/waste management, and at the end of the session participants clarified their doubts. Mr. L. Karthikeyan, AP/Mech acted as a moderator for the session and delivered vote of thanks for the program.

Totally, there are 86 registrations are received across all major cities of our state and few are from other states also. Out of which 44 participants attended via Google Meet Platform. All the 44 Participants received their certificate after they completed all procedures.

Sample Certificate

**Brochure**



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
Department of Mechanical Engineering
EXTRAMURAL LECTURE SERIES(ELS) - NT007
HYDROGEN AND ITS APPLICATIONS



Registration Link
<https://tinyurl.com/Hydrogen-and-its-Applications>


<http://meet.google.com/vbn-dizu-zkh>



Date :June 19, 2022
(Sunday)
IST: 03.00 P.M to
04.00 P.M

Shri. Rajan Varshney
Deputy General Manager,
NTPC, Farakka

COORDINATOR
Dr.J.JABINTH
ASST. PROF./MECH

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

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

CHIEF PATRON
Dr.L.GANESAN
PRINCIPAL

Signature of the Faculty Advisor
with date affixed with seal