



POORNIMA

COLLEGE OF ENGINEERING

Promoted by Shanti Education Society, Affiliated to Rajasthan Technical University & Approved by AICTE

Poornima College of Engineering, Jaipur

Activities Organized under the MoU with RIII and RINZTECH, New Zealand

S .N.	Department	Date	Type	Name of Activity	Page No.
1	Mechanical Engineering	4/10/2021	Workshop	International Workshop on Advancement and Innovation in Hybrid Vehicle Technology	2-9
2	Mechanical Engineering	12/10/2021	Webinar	An International Webinar on Energy Efficiency and Electric Car	10-15



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A REPORT ON NATIONAL WORKSHOP

TITLE AND DURATION: “International Workshop on Advancement and Innovation in Hybrid Vehicle Technology”, August 04, 2021

SPONSORS & SUPPORTERS: (Under MoU with RIII and RINZTECH, New Zealand)

ORGANIZERS: DST and PCE, Jaipur.

FLYER / POSTER:

POORNIMA COLLEGE OF ENGINEERING
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One Day online International Workshop on
Advancement and Innovation in Hybrid Vehicle Technology
Wednesday, August 04, 2021

Department of Mechanical Engineering, Poornima College of Engineering
Cordially invite you to Inaugural Session

Distinguished Speakers

- Er. Digvijay Singh Jodha**
Mystic Souls & The Bicycle Monk (Founder)
Worked as Sr. Manager, Cummins India & UK
- Dr. Nikolai Ardey**
Executive Director, Group Innovation
Volkswagen AG, Germany
- Er. Anurag Choudhary**
Technical Director
Qualtriche Consulting, India
- Dr. Mahesh M. Bunde**
Director & Principal, PCE, Jaipur
- Ar. Rahul Singhi**
Director Poornima Group
- Mr. Pankaj Ohemia**
Vice Principal, PCE, Jaipur
- Dr. Narayan Lal Jain**
HOD, ME, PCE
- Dr. Surendra Kumar Saini**
Associate Professor, ME, PCE
Workshop Coordinator
- Mr. Sanjay Kumar**
Associate Professor, ME, PCE
Workshop Co-coordinator
- Mr. Ashwani Kapoor**
Associate Professor, ME, PCE
Workshop Co-coordinator

Virtual platform: Microsoft teams

Note: E-certificate will be given to all participants
Registration Link: <https://tinyurl.com/PCE-ME-AUTO>

RSVP
Dr. Surendra Kumar Saini
E: +91-7905896452
S: surendra.kumar@poornima.org

EXPERTS INTRODUCTION

Dr. Nikolai Ardey is working as Executive Director Group Innovation, Volkswagen, Germany. Er. Anurag Chaudhary working as Technical Director, Qualtriche, India and Er. Digvijay Singh Jodha is

working as founder Mystic Souls and The Bicycle Monk and worked as senior manager at cummins India & UK.

SESSION DESCRIPTION

Renewable materials, green fuels plays a vital role in development and evolution of hybrid vehicles technology. Safety rules and latest emissions rules confirm the sustainability of hybrid vehicles. From this workshop researchers, academicians, professional engineers have benefited.

PANELIST NAMES WITH DETAILS

1. Dr. Narayan Lal Jain, HOD Mechanical Engineering Department
2. Dr. Surendra Kumar Saini, Coordinator & Faculty in Mechanical Engineering Department.
3. Shri Ashwani Kapoor, Faculty in Mechanical Engineering Department
4. Dr. Nikolai Ardey, (Speaker/Expert of Workshop) Executive Director Group Innovation Volkswagon, Germany
5. Er. Anurag Chaudhary, (Speaker/Expert of Workshop) Technical Director, Qualniche, India
6. Er. Digvijay Singh Jodha, (Speaker/Expert of Workshop) Founder, Founder Mystic Souls and

SCREENSHOTS OF ONLINE SESSION

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Classification CO₂ capture CO₂" with a source citation "Source: Minx et al. 2018". The slide is categorized by "Capture via" (Photosynthesis, Chemistry) and "Technology category" (Afforestation & reforestation, Soil carbon sequestration, Biochar, Bioenergy with carbon capture & storage, Direct air capture, Enhanced weathering & ocean alkalisation, Ocean fertilisation). It also lists "Implementation options" (Agro-forestry, Crop residues, Suspended amines, Silicate rocks, Carbonate rocks, Iron fertilisation) and "Earth system" (Land, Ocean). The bottom of the slide shows "Storage medium" (Above-ground biomass, Soil, Geological reservoirs, Minerals, Marine sediment & catchers). The Zoom interface includes a top bar with a timer (02:05:24), a "Request control" button, and a "Leave" button. A right sidebar shows a list of participants, including Guest, AFROZ ALAM, AMARJEET KUMAR PC..., Amit Mandal, ANKIT MALI, ANMOL PANWAR, Anupam Anand, ASHISH JANGID, and ASHISH MEENA. The bottom of the screen shows a Windows taskbar with a search bar and various application icons.

Meeting in "General"

02:07:13

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Participants

Invite someone or dial a number

Share invite

Guest

AFROZ ALAM

AMARJEET KUMAR PC...

Amit Mandal

ANKIT MALI

ANMOL PANWAR

Anupam Anand

ASHISH JANGID

ASHISH MEENA

Direct Air Capturing (DAC) - Technology
Adsorption of CO₂ by Low-Temperature Dryer Process

Process

1. Air is filtered, CO₂ is captured by sorbent
2. If sorbent is fully loaded the CO₂ is desorbed and collected

Ardey, Nikolai, Dr. (K. AER)

Dr. Narayan Lal Jain (G...)

Ashwani Kapoor

Ardey, Nikolai, Dr. (K. AER)

Type here to search

30°C

ENG IN

5:05 PM 8/4/2021

Meeting in "General"

02:08:18

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Participants

Invite someone or dial a number

Share invite

Guest

AFROZ ALAM

AMARJEET KUMAR PC...

Amit Mandal

ANKIT MALI

ANMOL PANWAR

Anupam Anand

ASHISH JANGID

ASHISH MEENA

To Remove CO₂ From the Atmosphere on Large Scale

Ardey, Nikolai, Dr. (K. AER)

Dr. Narayan Lal Jain (G...)

Ashwani Kapoor

Ardey, Nikolai, Dr. (K. AER)

Type here to search

30°C

ENG IN

5:06 PM 8/4/2021

Meeting in "General"

02:10:55

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Participants

Invite someone or dial a number

Share invite

Guest

AMARJEET KUMAR PC...

Amit Mandal

ANMOL PANWAR

Anupam Anand

ASHISH JANGID

ASHISH MEENA

Atishay Mittal (Guest)

Bernadette T. Igos

Strategic Project Alignment
Gross price potential per product segment (actual prognosis)

Removal

CAPTURE TECHNOLOGIES
IP 72802

- Filter
- Process
- Manufacturing
- Renewable energy

1. Strategic pillar (CCU) Circular economy
CARBON UTILIZATION
IP 72804

Potential return: 8.4% CO₂

Technical gas: 475 - 504 €

Energy carrier

Liquids, solids: 5,365 - 5,555 €

DKI - accounting (Net-Zero Target)

2. Strategic pillar (CCM) Certification
CARBON MINERALIZATION
IP 72825

CO₂ - Certificates: 25 - 120 €/t-CO₂

LCFR Tax Credits: 200 \$/t-CO₂

450 \$/t-CO₂

Supply Chain

Customer: 375 - 350 €/t-CO₂

DKI - accounting (Net-Zero Target)

Ardey, Nikolai, Dr. (K. AER)

Dr. Narayan Lal Jain (G...)

Ashwani Kapoor

Ardey, Nikolai, Dr. (K. AER)

Type here to search

30°C

ENG IN

5:08 PM 8/4/2021

Meeting in "General"

02:12:21

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Direct-Air-Capture – Cost per build-up steps and layer

INDICATIVE EVALUATION

Expansion step	Layer	Cost (EUR / t CO ₂)
Expansion step 1 0.1 Mt Iceland p.a. 2024	L1: DAC R&D	18
	L2: DAC Hardware	79
	L3: System Integrator	47
	L4: DAC facility operator	10
Expansion step 2 1 Mt Iceland p.a. 2025	L1: DAC R&D	2
	L2: DAC Hardware	45
	L3: System Integrator	92
	L4: DAC facility operator	10
Expansion step 3 7 Mt Global p.a. 2026	L1: DAC R&D	13
	L2: DAC Hardware	72
	L3: System Integrator	125
	L4: DAC facility operator	27
Expansion step 4 1 Gt Global p.a. 2042	L1: DAC R&D	2
	L2: DAC Hardware	48
	L3: System Integrator	110
	L4: DAC facility operator	10

→ Big Business Ahead??

Ardey, Nikolai, Dr. (K-AER)

Participants

Invite someone or dial a number

Share invite

Guest

AMARJEET KUMAR PC...

Amit Mandal

ANMOL PANWAR

Anupam Anand

ASHISH JANGID

ASHISH MEENA

Atishey Mittal (Guest)

Bernadette T. Igos

Type here to search

Meeting in "General"

02:13:19

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→ What is the Catch??

INDICATIVE EVALUATION

Year	Profit p.a.	Cum. Cash Flow in bn. EUR
2022	2.7	-12
2023	2.7	-12
2024	2.7	-12
2025	2.7	-12
2026	2.7	-12
2027	2.7	-12
2028	2.7	-12
2029	2.7	-12
2030	2.7	-12
2031	2.7	-12
2032	2.7	-12
2033	2.7	-12
2034	2.7	-12
2035	2.7	-12
2036	2.7	-12
2037	2.7	-12
2038	2.7	-12
2039	2.7	-12
2040	2.7	-12
2041	2.7	-12
2042	2.7	-12
2043	2.7	-12
2044	2.7	-12
2045	2.7	-12
2046	2.7	-12
2047	2.7	-12
2048	2.7	-12
2049	2.7	-12
2050	2.7	-12

→ International cooperations and governmental support required for scale up!

Ardey, Nikolai, Dr. (K-AER)

Participants

Invite someone or dial a number

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Mute all

Dr. Surendra Kumar

Anurag (Guest)

Ardey, Nikolai, Dr. (K-AER)

Ashwani Kapoor

Digvijay Singh Jodha (Guest)

Dr. Mahesh Bunde

Dr. Narayan Lal Jain (Guest)

Type here to search

Meeting in "General"

02:14:46

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The Group Innovation of the Volkswagen Group works on a roadmap to remove one Gigaton Carbon Dioxide per year

Ardey, Nikolai, Dr. (K-AER)

Participants

Invite someone or dial a number

Share invite

Mute all

Dr. Surendra Kumar

Anurag (Guest)

Ardey, Nikolai, Dr. (K-AER)

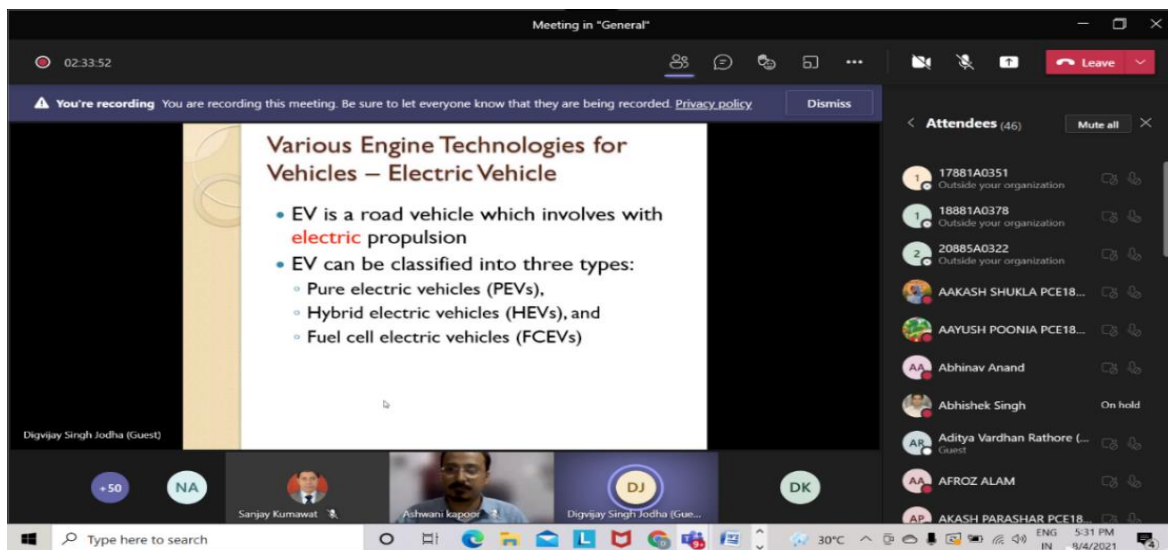
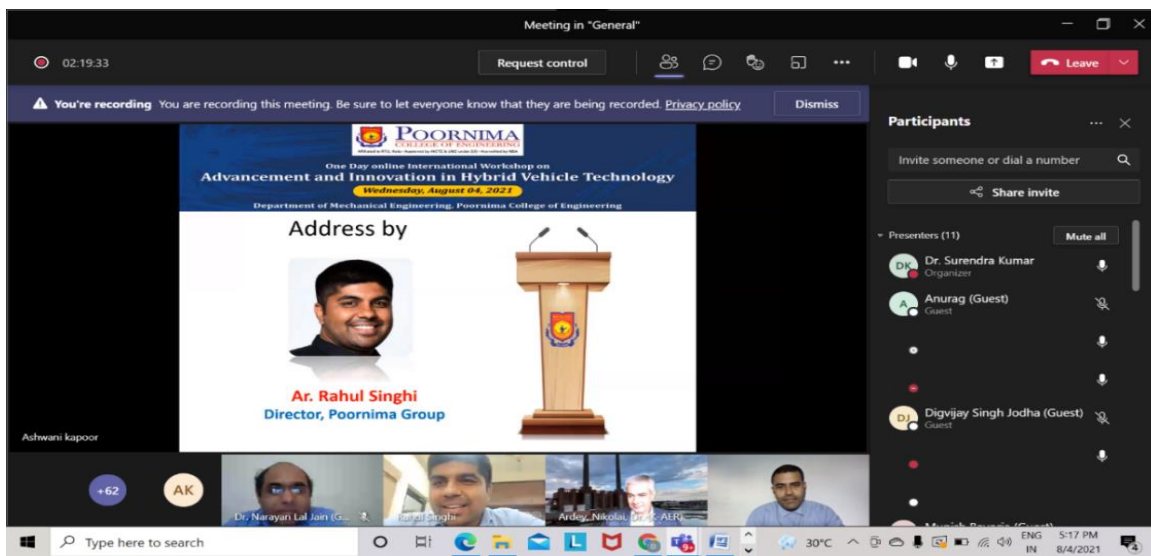
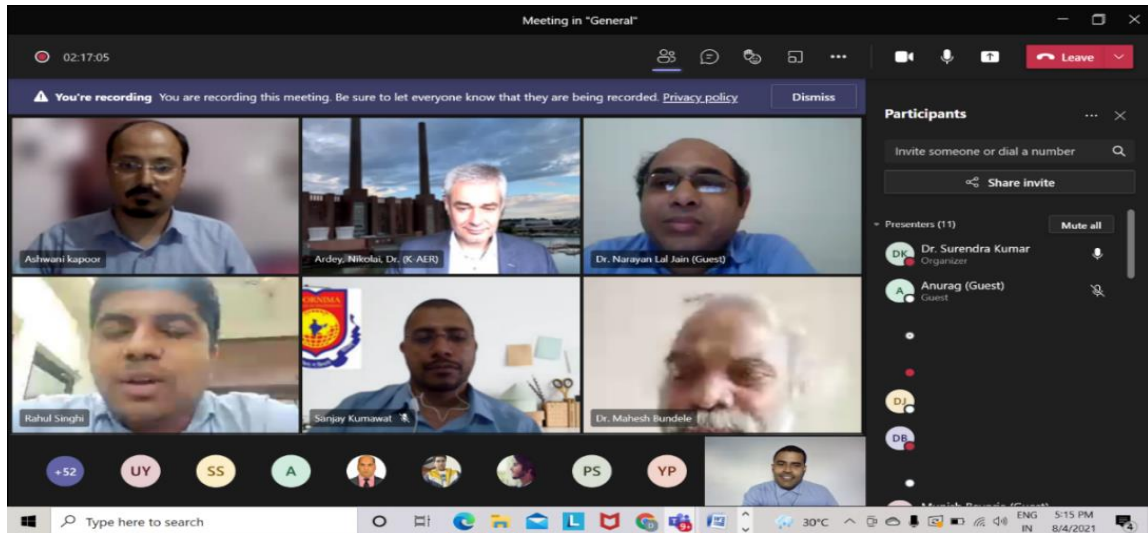
Ashwani Kapoor

Digvijay Singh Jodha (Guest)

Dr. Mahesh Bunde

Dr. Narayan Lal Jain (Guest)

Type here to search



Meeting in "General"

02:55:33

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Future Developments

- Hybrid Electric Vehicle Energy Management & Control System
- Improved batteries designed with high power density
- Clean Electricity Generation
- Infrastructure Development (eg. Charging)
- Government policies and Incentives

Digvijay Singh Jodha (Guest)

+40 YP Sanjay Kumawat Ashwani Kapoor Digvijay Singh Jodha (Guest)

Attendees (38) Mute all

- Kunal Yadav
- MANISH Outside your organization
- MANISH SAINI
- Manpreet Singh Outside your organization
- MD KHUSHBUDDIN ALA... Guest
- NAYAN KUMAR PCE18EE... Guest
- Neeraj Goyal (Guest) Guest
- NIDHISH PAREEK
- Nimish Motghare (Guest) Guest
- ROHIT KUMAR SINGH (Gu... On hold

Type here to search

30°C ENG 5:53 PM IN 8/4/2021

Meeting in "General"

03:24:39

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Request control

Participants

Invite someone or dial a number

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Anurag (Guest) Guest

Ashwani Kapoor

Digvijay Singh Jodha (Guest) Guest

Dr Narayan Lal Jain (Guest) Guest

Sanjay Kumawat

Attendees (38)

- 17881A0351 Outside your organization
- 18881A0378 Outside your organization
- 20885A0322

Sanjay Kumawat

POORNIMA COLLEGE OF ENGINEERING

One Day online International Workshop on
Advancement and Innovation in Hybrid Vehicle Technology
Wednesday, August 04, 2021
Department of Mechanical Engineering, Poornima College of Engineering

Technical Session on "Automotive Core Tools"

Er. Anurag Choudhary
Technical Director,
Qualitiche, India

NIDHISH PAREEK Ashwani Kapoor Digvijay Singh Jodha (Guest)

Type here to search

29°C ENG 6:22 PM IN 8/4/2021

Meeting in "General"

03:46:07

You're recording You are recording this meeting. Be sure to let everyone know that they are being recorded. [Privacy policy](#) Dismiss

Request control

Participants

Invite someone or dial a number

Share invite

Sanjay Kumawat

Attendees (41)

- 17881A0351 Outside your organization
- 18881A0378 Outside your organization
- 20885A0322 Outside your organization
- Abhinav Anand
- Abhishek Singh On hold
- Aditya Vardhan Rathor... Guest
- AFROZ ALAM

Anurag (Guest)

1) Advanced Product Quality Planning (APQP)

2) Failure Mode and Effects Analysis (FMEA)

3) Measurement Systems Analysis (MSA)

4) Statistical Process Control (SPC)

5) Product Part Approval Process (PPAP)

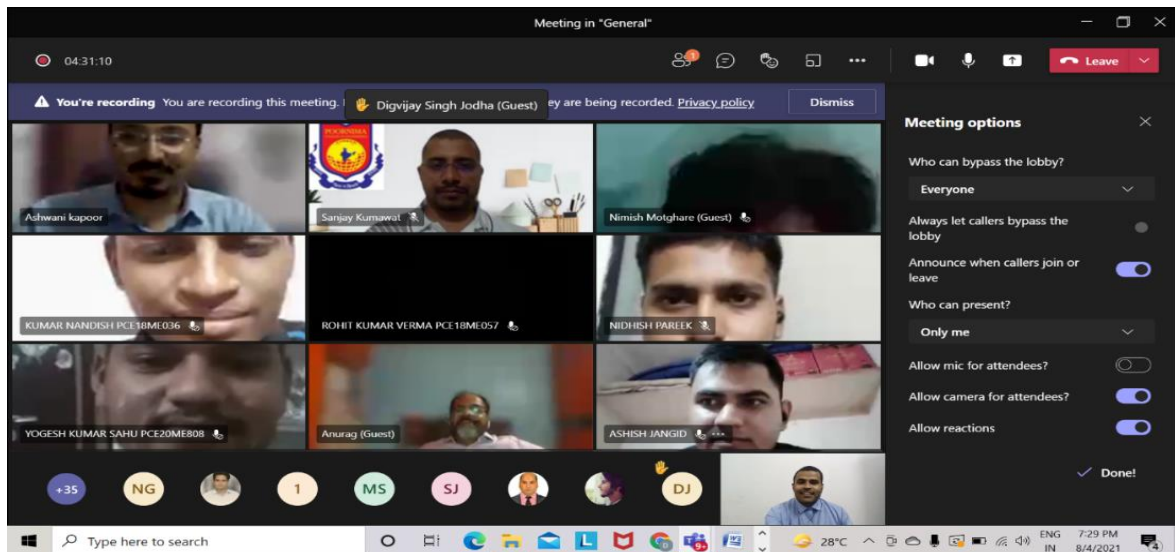
MVA

Flawless launch

Digvijay Singh Jodha (Guest) Ashwani Kapoor Anurag (Guest)

Type here to search

30°C ENG 6:44 PM IN 8/4/2021



FEEDBACK FORM FORMAT

International Workshop on “Advancement and Innovation in Hybrid Vehicle Technology”

International Webinar on “Advance Innovations in Hybrid Vehicles” on Wednesday, Aug 4, 2021.

Email *

Valid email address

This form is collecting email addresses. [Change settings](#)

Salutation *

☐ Mr.

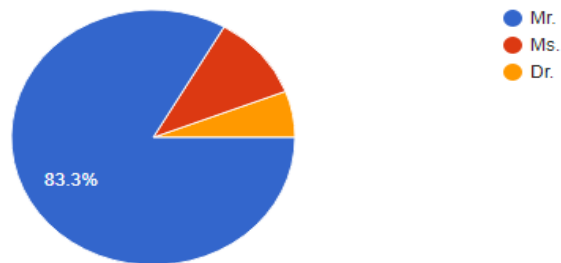
☐ Ms.

☐ Dr.

Name of participant *

Salutation

306 responses



Name of participant

315 responses

How would you rate the webinar? *

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Ok

How would you rate the organization of the event? *

- Poor 1 2 3 4 5 Excellent
- ☐ ☐ ☐ ☐ ☐

Would you like to attend any further webinar organized by department of Mechanical Engineering, PCE? *

- ☐ Yes
- ☐ No
- ☐ Maybe



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A REPORT ON WEBINAR

TITLE AND DURATION: An International Webinar on Energy Efficiency and Electric Car on 12, August, 2021

SPONSORS & SUPPORTERS: Under MoU with RIII and RINZTECH, New Zealand

ORGANIZER(S): Department of Mechanical Engg, Poornima College of Engineering, Jaipur.

EXPECTED OUTCOMES:

- Student will be able to enhance the knowledge of automobile industry.
- Student will be able to recognize the different scopes of Mechanical Engineering in automobile industry.
- Student will be able to analyze their future perspective in the field of automobile industry.

MAPPINGS WITH PO & PSO:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	3	-	-	-	-	-	-	2	3	2
CO2	-	-	-	-	-	-	-	-	3	-	-	-	2	3	2
CO3	-	-	-	-	-	-	-	-	-	-	-	3	2	3	2

FLYER / POSTER:



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**Online International Webinar on
Energy Efficiency and
The Electric Car**

Organized by:
Department of Mechanical Engineering

Thursday, August 12, 2021

TIME 06:00 PM to 07:00 PM (IST)

Virtual platform: Microsoft teams

RSVP:
Prof. (Dr.) Mohammad Israr
mohammad.israr@poornima.org
☎ : +91 79873 98432

Mr. Paul Martin
Program Manager
Zeton Inc. Ontario, Canada

Registration Link:
<https://forms.gle/6HhRbxJhQn9YRKzw5>

BRIEF BIODATA OF RESOURCE PERSON: Mr. Paul Martin, Program Manager at Zeton Inc., Ontario, Canada

ABSTRACT OF THE SESSION: Techniques of Energy Efficiency and The Electric Car have discussed to enlighten researchers, academicians, professional engineers.

PANELIST NAMES WITH DETAILS

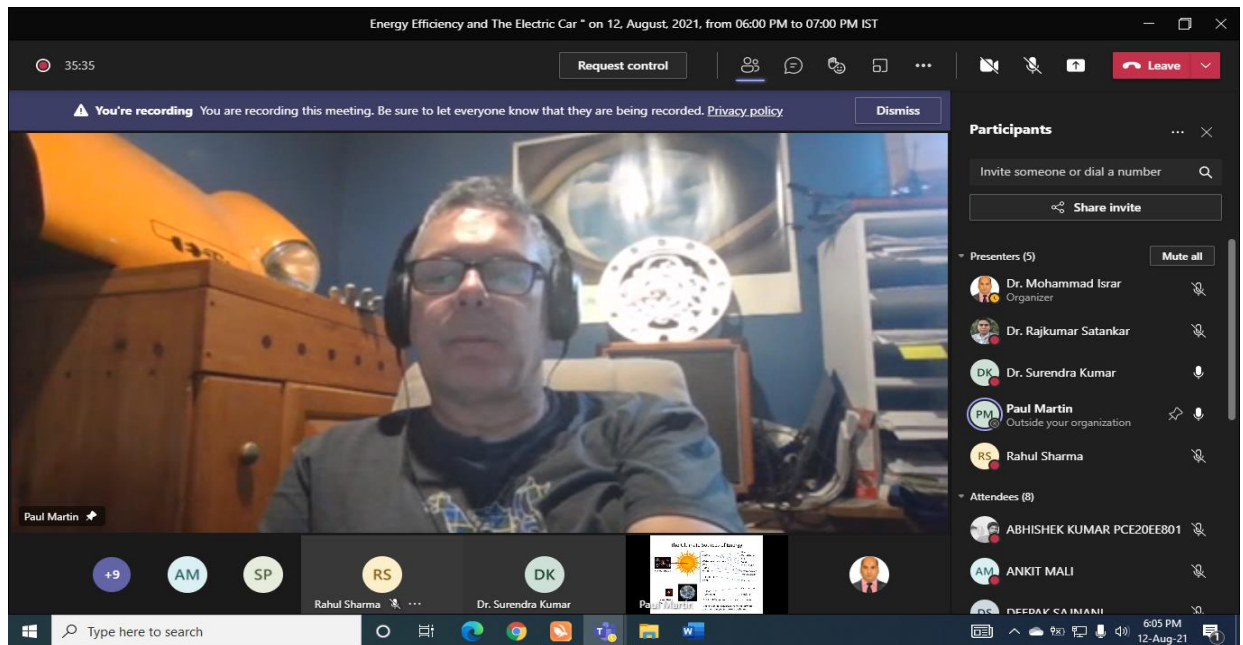
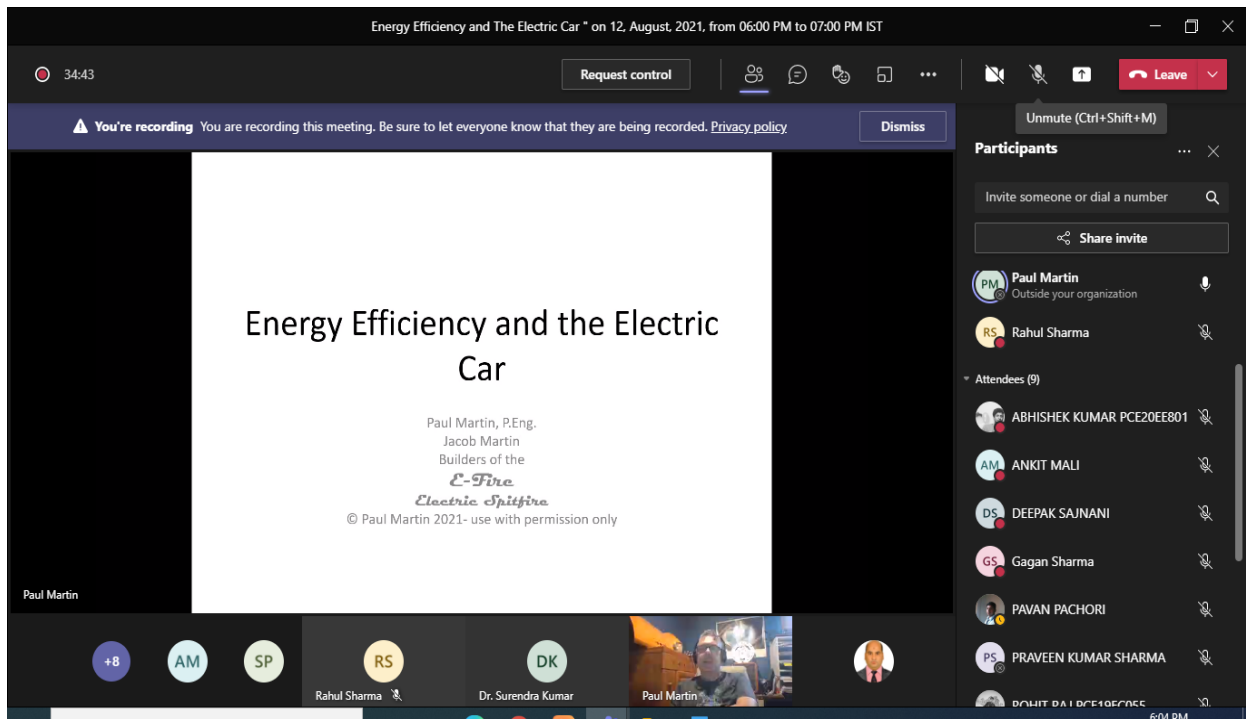
Dr. Narayan Lal Jain, HOD Mechanical Engineering Department

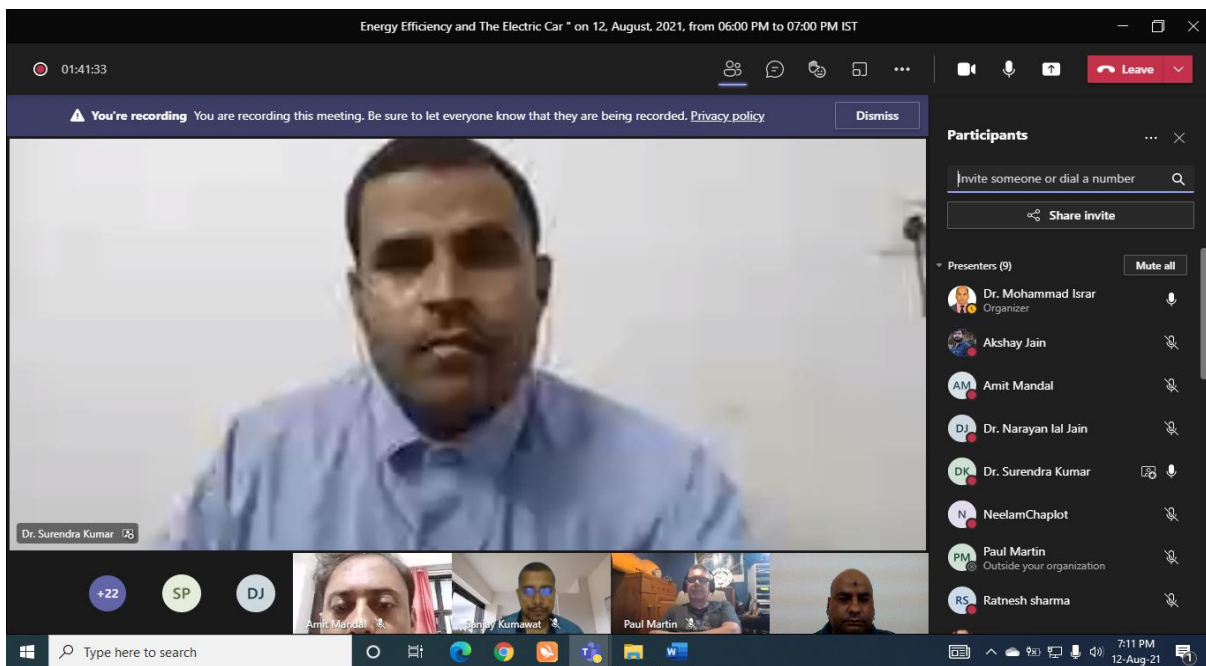
Prof. (Dr.) Mohammad Israr, Coordinator & Faculty in Mechanical Engineering Department.

Dr. Surendra Saini, Faculty in Mechanical Engineering Department.

Mr. Paul Martin, (Speaker/Expert of Webinar), Program Manager at Zeton Inc., Ontario, Canada

GLIMPSES:





LIST OF PARTICIPANTS:

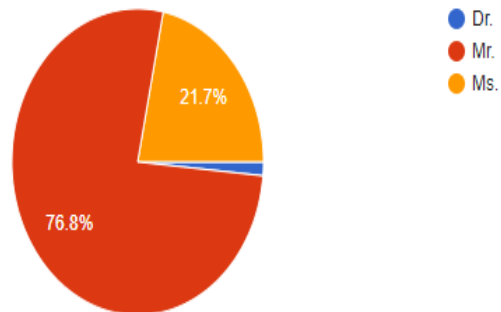
Name of Participants	Name of organization/Institute/College/Industry
Dhruv Singh Rathour	Poornima College of Engineering
Manish singh chouhan	Poornima College of Engineering
Nimai Joshi	Poornima College of Engineering
Aditya Singh Rajawat	Poornima College of Engineering
ABHINANDAN AGRAWAL	Poornima College of Engineering
Praveen Kumar Sharma	Poornima Institute of Engineering & Technology
khushboo Meena	Poornima Institute of Engineering & Technology
Leeladhar Kumawat	Poornima College of Engineering
Javed Alam	Poornima College of Engineering
ABHINAV ANAND	Poornima College of Engineering
Shiv Ratan Tanwar	Poornima Institute of Engineering & Technology
Bhim singh	Poornima Institute of Engineering & Technology
Rajan sehgal	Poornima College of Engineering
Sunil Kumar meena	Poornima College of Engineering
Vishal Soni	Poornima College of Engineering
NIDHISH PAREEK	Poornima College of Engineering
Afroz Alam	Poornima College of Engineering
Vivek kumar	Poornima College of Engineering
NAYAN KUMAR	Poornima College of Engineering
Batsal Kumar	Poornima College of Engineering
Surender Kumar	Poornima College of Engineering
Kishore Kumar	Poornima Institute of Engineering & Technology
Nitin Angural	Poornima College of Engineering
Shubham prajapati	Poornima College of Engineering
Tushar	Poornima College of Engineering
Naveen Verma	Poornima College of Engineering

Anush jain	Poornima College of Engineering
Mohammed Umar Tanwar	Poornima College of Engineering
Khushi Sharma	Poornima College of Engineering
Hitesh Kumar	Poornima College of Engineering
Shivam khandelwal	Poornima College of Engineering
DIVYA ROHATGI	Poornima Institute of Engineering & Technology
Chandra Prakash	Poornima College of Engineering
Sapna Kumari	Poornima College of Engineering
Sindhu kumari	Poornima College of Engineering
Vikram	Poornima College of Engineering
Gagan Sharma	Poornima College of Engineering
Apoorva Meena	Poornima College of Engineering
om shukla	Poornima College of Engineering
Harshvardhan Shringi	Poornima College of Engineering
AMAN GOYAL	Poornima College of Engineering
Shristy Khandelwal	Poornima College of Engineering
Aayushi Khandelwal	Poornima College of Engineering
SAFDAR ALAM	Poornima College of Engineering
Divyanshi Choudhary	Poornima College of Engineering
ACHAL SINGHAL	Poornima College of Engineering
Kashish Chauhan	Poornima Institute of Engineering & Technology
Deepak Sajani	Poornima College of Engineering
Manoj Gattani	Poornima College of Engineering
Mansi kumari	Poornima College of Engineering
Harpreet Singh	Poornima College of Engineering
Gunank Bansal	Poornima College of Engineering
Kunal Yadav	Poornima College of Engineering
Ayush Dhyani	Govt. Polytechnic College, Damoh. Madhya Pradesh
Kumar Saurabh	Statkraft
SOURABH GUPTA	Poornima College of Engineering
Nazwa Aulia Suhandy	SMAN 1 KANDANGHAUR
Siti Aisah	STIE Syariah Indonesia Purwakarta
Abhishek Dubey	Poornima College of Engineering
Jason Octavianus	.
MD WAQUAR AHMAD	Poornima College of Engineering
Mark Andrew N. Perez	University of Batangas
MARPU'AH	STIKOM POLTEK CIREBON
ABDULLAH KHOKAR	Poornima College of Engineering
Harshit sarsiya	Poornima College of Engineering
Arpit Singh	Poornima College of Engineering
Sanya Gupta	Poornima College of Engineering
Prakshal Rohatgi	Poornima College of Engineering
Mudit agrawal	Poornima College of Engineering

FEEDBACK ANALYSIS

Salutation

69 responses



Name of organization/Institute/College/Industry

69 responses

