



POORNIMA

COLLEGE OF ENGINEERING

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

A Report on Faculty Development Program

- ✦ **TITLE AND DURATION:** “Recent Advances in Power Electronics Drive and Renewable Energy” from September 15-19, 2020.
- ✦ **SUPPORTERS:** TEQIP-III.
- ✦ **ORGANIZERS:** Electrical Engineering Department, Poornima College of Engineering, Jaipur.
- ✦ **BROCHURE / POSTER / LEAFLET / FLYER:**

IEEE EXECUTIVE COMMITTEE

Dr. Rohit Bhakar	Chairperson
Dr. Soumava Mukherjee	Vice-Chair
Dr. Sanjeev Yadav	Secretary
Dr. Sandeep Vyas	Treasurer

PCE ACADEMIC COMMITTEE

Er. Pankaj Dhemla	Vice-Principal, PCE
Dr. Rekha Nair	Dean, I Year, PCE
Dr. Amit Shrivastava	Professor, PCE
Dr. Babita Jain	Professor, PCE
Dr. Deepika Chauhan	Professor, PCE
Dr. Himani Goyal Sharma	Professor, PCE
Dr. Neeraj Tiwari	Professor, PCE
Dr. Pravin Machhindra Sonwane	Professor, PCE
Dr. Sunil Gupta	Professor, PCE
Dr. Ranjeet Kumar	Associate Professor, PCE
Dr. Vijay Kumar Gale	Associate Professor, PCE
Dr. Gaurav Jain	Associate Professor, PCE
Mr. Brijraj Singh Solanki	Associate Professor, PCE
Ms. Ekata Sharma	Associate Professor, PCE
Mohammad Asif Iqbal	Associate Professor, PCE
Mr. Gaurav Srivastava	Assistant Professor, PCE
Mr. Mahesh Kumar Meena	Assistant Professor, PCE
Mr. Mayank Sharma	Assistant Professor, PCE
Mr. Pankaj Gakhar	Assistant Professor, PCE

Resource Persons

The Resource Persons for the FDP will be Eminent Professors and Experts in the area of Power Electronics, Drive and Renewable Energy from IITs, IITs, NITs, Industry and other Esteemed Institutions.

Eligibility

This course is open to all the Faculty Members of AICTE Approved Institutions, Research Scholars, and Persons working in R&D organizations or Industry. Number of participants for FDP are limited. All the sessions will be conducted online only.

Registration and Fee Particulars

- There is no registration fee for faculty from AICTE approved Institutions, Participants from Industry, and Research Scholars.
- Registration for the program may be done by filling the Registration Form online, Reg. Link: <https://forms.gle/cqKSPoEVCAMgLYp8>

IMPORTANT DATES

Last date of recipient of application	September 11, 2020
Intimation of selection by mail	September 13, 2020
FDP duration	September 15-19, 2020

Correspondence

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Venue

Department of Electrical Engineering
 Poornima College of Engineering
 ISI-6, RIICO Institutional Area, Sitapura, Jaipur, Rajasthan 302022
www.pce.poornima.org

TEQIP-III SPONSORED One Week FDP on Recent Advances in Power Electronics Drive and Renewable Energy September 15-19, 2020

In Association with

IEEE
 RAJASTHAN SUB SECTION

Organized by

Rajasthan Technical University, Kota &
 Department of Electrical Engineering
POORNIMA
 COLLEGE OF ENGINEERING

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2f • Accredited by NBA


Dr. Mahesh Bunde
 B.E., M.E., Ph.D.
 Director
 Poornima College of Engineering
 ISI-6, RIICO Institutional Area
 Sitapura, JAIPUR

ABOUT TEQIP-III

The Project, third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices.

RAJASTHAN TECHNICAL UNIVERSITY

Rajasthan Technical University (RTU) is located in Kota in the state of Rajasthan. It was established in 2006 by the Government of Rajasthan. The University currently affiliates about 129 Engineering Colleges, 4 B.Arch., 41 MCA Colleges, 95 MBA Colleges, 44 M.Tech. Colleges and 3 Hotel Management and Catering Institutes. The University aims to provide quality technical education which may help Rajasthan in its technical development and will boost technical environment in the country.

POORNIMA COLLEGE OF ENGINEERING

Poornima College of Engineering (PCE), established as a brand of technical education in the year 2000, has its own glorious legacy of leading the young engineers to the mammoth sky of success. Its accomplishments forecast its journey through the hardships and its triumph over them one after another. PCE left no stone unturned since its establishment in turning the glorious vision into unbelievable reality providing the platform for knowledge and research and their practical implementations in different engineering professional prospects. Glorious glimpses of PCE:

- Highly recognized and renowned affiliated technical institution all over Rajasthan with built up area more than 3.5 lacs square feet.
- Affiliated to RTU, Kota & approved by AICTE, New Delhi
- The most preferred NBA Accredited Engineering College with running of six specializations of Engineering at UG Level (CSE, ECE, EE, ME, IT, CIV) and two at PG level (CS & VLSI)
- The only institution permitted by RTU to admit PN/PIO Gulf students & designated as centre of excellence by IBM.

Department of Electrical Engineering

The Journey of Department of Electrical Engineering was started in year 2000 with Poornima College of Engineering, Jaipur. The department has its major share in the entire PF with the total intake of more than 600 students. We are providing all the amenities of infrastructure related to knowledge, research, experiments and training of multiple professions.

The department has organized various workshops, seminars, expert lectures in this session i.e. workshop on PLC, SCADA, MATLAB, Renewable Energy, Industrial Automation, etc. The department has been taking initiatives for versatile enhancement of the students through technical, cultural and sports tests since the establishment. Most of our final year students have been placed in Infosys, Cognizant India Ltd., F&CE, Gram Power, Adani Power, KSTPS, Pinnacle Infotech solutions, etc.

COURSE CONTENTS

Applications of power electronics are expanding at a high pace in industrial power generation, utility, grid integration, and transmission environments due to the advancements in technology and reduction in cost and size of the components and systems. The growth of power electronics starting from semiconductor type switching devices to various multistage topologies which will extensively contribute to the development and growth of renewable energy resources around the globe. It is a fact that power electronics is an integral part of renewable energy generation and utilization and its optimization of size, cost, and performance is necessary for the most efficient harvesting. Individual sources of renewable energy resources interfaced with multistage of power electronic systems are also popular.

Topics to be covered

- Role of Converters/ Inverters for Green Energy System
- Control Applications to the Renewable Energy Systems
- Solar Photovoltaic Systems-Current Trends and Challenges
- Electric Vehicle and Hybrid Electric Vehicle
- Topologies and Control of Wind Energy Conversion Systems
- Short Term Wind Forecasting using Statistical Models
- Wind Farm Layout Optimisation
- Solar Parks Integration
- Efficient Hybrid Energy System

Objectives of the FDP

- To equip teachers with skills and knowledge in the field of Power Electronics, Drive and Renewable Energy. This is essential for inculcating learning values in students and guiding & monitoring their progress towards their career.
- To make the faculty members to train the students to create interest towards the field of Power Electronics, Drive and Renewable Energy and also familiarize the students with the practical aspects of this field and gradually teach them the industrial usage for the same.

FDP COMMITTEE

CHIEF PATRON
Prof. (Dr.) R. A. Gupta
Hon'ble Vice Chancellor, RTU Kota

PATRON
Dr. Mahesh M. Bundeale
Principal & Director, Poornima College of Engineering

RTU (ATU) TEQIP-III COORDINATOR
Prof. (Dr.) Dharendra Mathur

RTU EVENT COORDINATOR
Dr. Mahendra Lalwani (RTU, Kota)

RTU (ATU) TEQIP-III COMMITTEE

Dr. Harish Sharma	Nodal officer
Prof. D. K. Sambariya	Nodal Officer Procurement
Dr. S. D. Purohit	Nodal Officer Finance
Dr. Iram Alvi	Conferencier
Mr. Santosh Sharma	Expert Lecture
Mr. Anshul Bansal	GATE & Induction
Mr. Dinesh Kumar	Workshop

HOST INSTITUTE COORDINATORS

Dr. Virendra Sangtani	Professor, ECE, PCE
Mr. Devendra Kumar Doda	Assistant Professor, EE, PCE



PROGRAM SCHEDULE:

Programme Outline	
Tuesday, Day 1: 15 September, 2020	
10.00 am – 10.30 am	<p align="center"><u>Inaugural Function</u></p> <ul style="list-style-type: none"> Prof. R. A. Gupta, Hon'ble Vice Chancellor, RTU Kota (Chief Guest) Dr. Yogesh D. Sonawane, Assistant General Manager, Reliance Industries Limited, Mumbai (Guest of Honour) Prof. (Dr.) Dharendra Mathur, RTU (ATU) TEQIP-III, Coordinator, RTU, Kota (Guest of Honour) Dr. Mahendra Lalwani, RTU Event Coordinator, RTU, Kota Ar. Rahul Singhi, Director, Poornima Group, Jaipur Dr. Mahesh Bundeale, Director & Principal, Poornima College of Engineering, Jaipur Er. Pankaj Dhemla, Vice-Principal, Poornima College of Engineering, Jaipur Dr. Rekha Nair, Dean, I Year, Poornima College of Engineering, Jaipur Dr. Virendra Sangtani, HOD, Department of Electrical Engineering, PCE, Jaipur
10.30 am - 12.00 noon	<p align="center"><u>Session-1</u></p> <p>Topic: Electric Vehicle and Hybrid Electric Vehicle: A Sustainable Transportation System for Indian Scenario</p> <p>Resource Person: Dr. Sanjay Kumar Maurya, Associate Professor, GLA University, Mathura, UP</p>
12.00 - 01.00 pm	BREAK

01.00 pm - 02.30 pm	<p style="text-align: center;"><u>Session-2</u></p> <p>Topic: Wind Farm Layout Optimisation</p> <p>Resource Person: Mr. Jagdish Chand Bansal, Associate Professor, South Asian University, Delhi</p>
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Programme Outline

Wednesday, Day 2: 16 September, 2020

10.30 am - 12.00 noon	<p style="text-align: center;"><u>Session-3</u></p> <p>Topic: Efficient Hybrid Energy System</p> <p>Resource Person: Dr. Ajay Kumar Bansal, Dean, School of Engineering and Technology, Central University of Haryana</p>
12.00 - 01.00 pm	BREAK
01.00 pm - 02.30 pm	<p style="text-align: center;"><u>Session-4</u></p> <p>Topic: Topologies and Control of Wind Energy Conversion Systems</p> <p>Resource Person: Dr. Hemant Ahuja, Professor, ABES Engineering College, Ghaziabad</p>

Programme Outline

Thursday, Day 3: 17 September, 2020

10.30 am - 12.00 noon	<p style="text-align: center;"><u>Session-5</u></p> <p>Topic: Control Applications to the Renewable Energy Systems</p> <p>Resource Person: Dr. Bhanu Pratap, Assistant Professor, Department of Electrical Engineering, NIT, Kurukshetra</p>
12.00 - 01.00 pm	BREAK
01.00 pm - 02.30 pm	<p style="text-align: center;"><u>Session-6</u></p> <p>Topic: Micro grid: Application of Advanced Power Electronics</p> <p>Resource Person: Dr. Manoj Rathi, Founder, Research Centre for Sustainable Solutions (RCSS) Pvt. Ltd., Energies, Nashik, Maharashtra</p>

Programme Outline

Friday, Day 4: 18 September, 2020

10.30 am - 12.00 noon	<p style="text-align: center;"><u>Session-7</u></p> <p>Topic: Solar Photovoltaic Systems-Current Trends and Challenges</p> <p>Resource Person: Dr. Ashish Shrivastava, Professor, Department of Electrical Engineering, Manipal University, Jaipur</p>
12.00 - 01.00 pm	BREAK
01.00 pm - 02.30 pm	<p style="text-align: center;"><u>Session-8</u></p> <p>Topic: Role of Converters/ Inverters for Green Energy System</p> <p>Resource Person: Dr. Anshul Agarwal, Associate Professor, NIT, Delhi</p>

Programme Outline	
Saturday, Day 5: 19 September, 2020	
10.30 am - 12.00 noon	<u>Session-9</u> Topic: Solar Parks Integration in Rajasthan Power System : A Case Study Resource Person: Dr. M. P. Sharma, Assistant Engineer, Rajasthan RajyaVidyutPrasaran Nigam Limited Jaipur
12.00 -01.00 pm	BREAK
01.00 pm - 02.30 pm	<u>Session-10</u> Topic: Short Term Wind Forecasting using Statistical Models Resource Person: Dr.Kailash Chand Sharma ,Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab
02.30 pm – 03.00 pm	Closing & Feedback Session

♦ EXPERT DETAILS:

Expert-1

Name: Dr. Bhanu Pratap

Designation: Assistant Professor

Department: Electrical Engineering

Organization Name: National Institute of Technology Kurukshetra

Email ID: bhanu@nitkkr.ac.in

Expert-2

Name: - Dr.AshishShrivastava

Designation: - Professor

Organization Name: - Manipal University Jaipur

Email ID: - ashish.shrivastava@jaipur.manipal.edu

Expert-3

Name; - Dr.Anshul Agarwal

Designation: - Assistant Professor

Organization Name: - NIT Delhi

Email id: - anshul@nitdelhi.ac.in

Expert-4

Name: Dr. Sanjay Kumar Maurya, PhD

Designation: Associate Professor

Organization: GLA University, Mathura, UP-281406

Email Id: sanjay.maurya@gla.ac.in, skmaurya@ieee.org

Expert-5

Name: Dr. HemantAhuja

Designation: Professor

Organization: ABES Engineering College, Ghaziabad

Email: hoden@abes.ac.in

Expert-6

Name: Dr. Kailash Chand Sharma

Designation: Assistant Professor

Organization Name: Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab

Email Id (Organizational): sharmakc@nitj.ac.in

Expert-7

Name: Dr. Jagdish Chand Bansal

Designation: Associate Professor

Organization Name: South Asian University, Delhi

Email Id (Organizational): jcbansal@sau.ac.in

Expert-8

Name: Dr. M. P. Sharma

Designation: Assistant Engineer

Organization Name: Rajasthan Rajya Vidyut Prasaran Nigam Limited Jaipur

Email Id: Mahavir_sh@rediffmail.com

Expert-9

Name: Dr. Ajay Kumar Bansal

Designation: Dean, School of Engineering and Technology

Organization Name: Central University of Haryana

Email Id: ajaybansal@cuh.ac.in, deansoet@cuh.ac.in

Expert-10

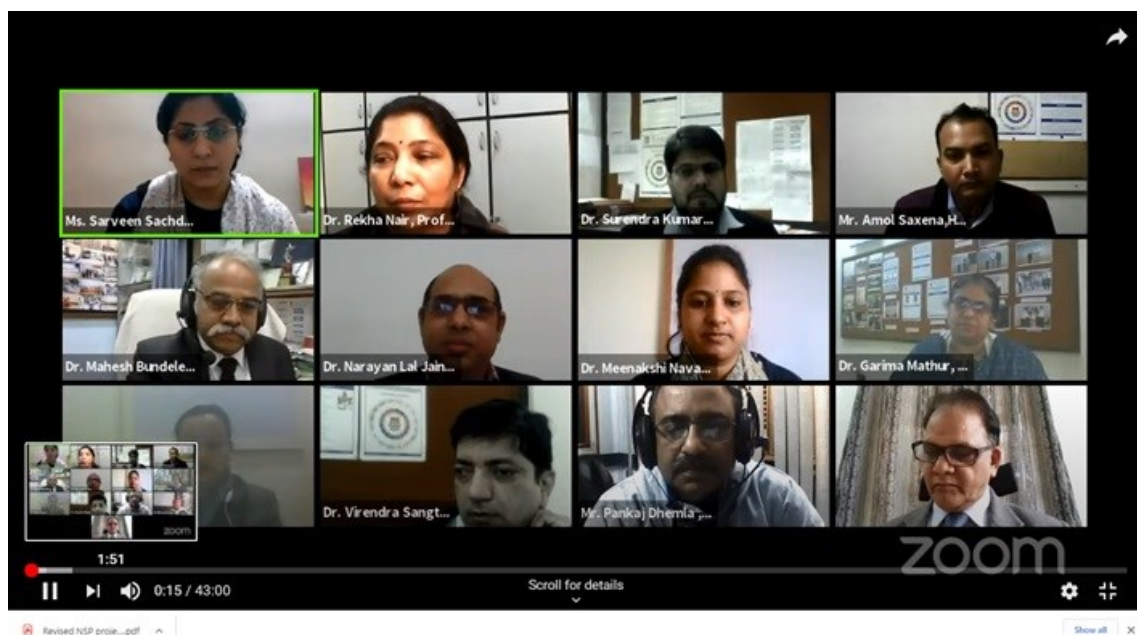
Name: Dr. Manoj Rath,

Designation: Founder

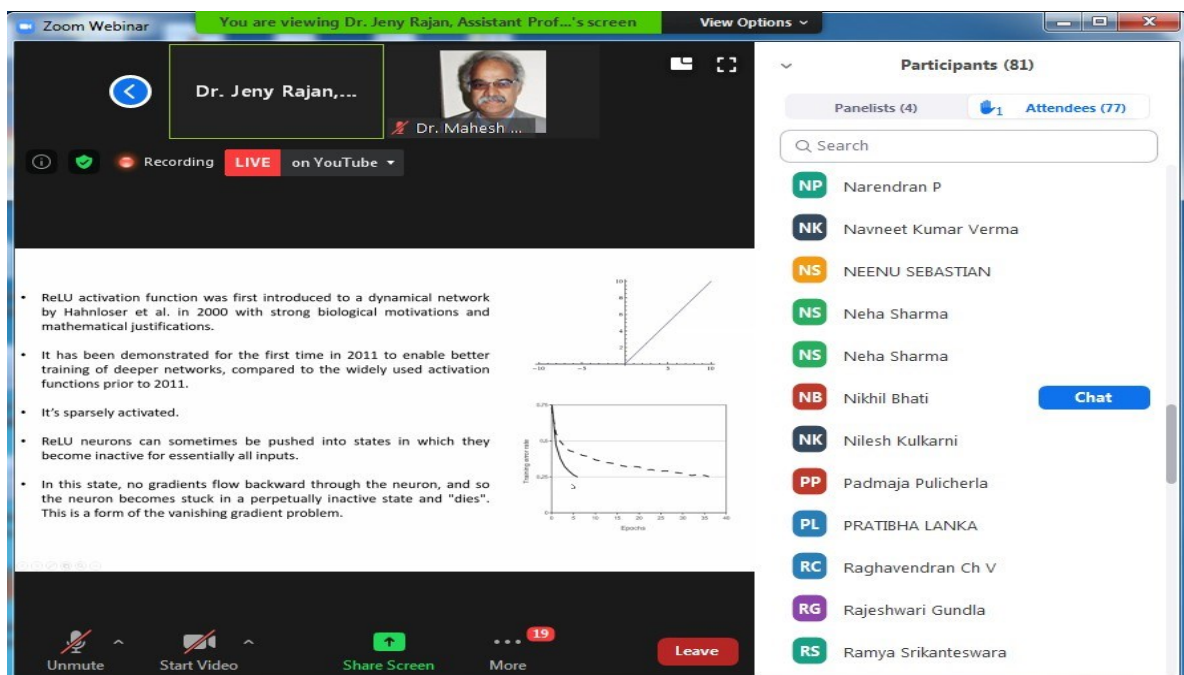
Organization Name: Research Centre for Sustainable Solutions (RCSS) Pvt. Ltd., Energies, Nashik, Maharashtra

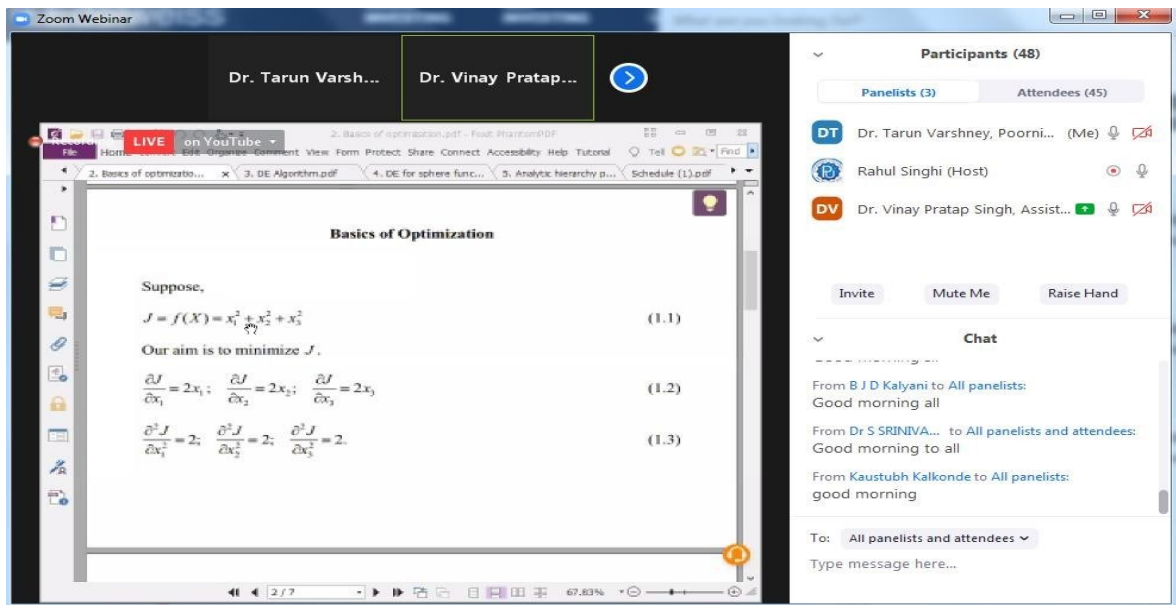
Email Id: manojrathi@rcssgroup.com

✦ GLIMPSES OF THE ONLINE SESSION:



Poornima College of Engineering - Activity Report - 2020-21





FEEDBACK FORM FORMAT:

FDP Feedback form ☆

Questions Responses 100 Total points: 0

FDP Feedback form

Kindly provide us your valuable feedback about the course (10 is the highest grade).

Email address *

Valid email address

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

Name of Participant *

Short-answer text

Name of Organization *

Short-answer text

FDP Feedback form ☆

Questions Responses 100 Total points: 0

Your experience about the course *

1 2 3 4 5 6 7 8 9 10

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Knowledge enhancement *

1 2 3 4 5 6 7 8 9 10

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Relevancy of topics. *

1 2 3 4 5 6 7 8 9 10

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CERTIFICATE FORMATE:



One Week IQIP III Sponsored Online Faculty Development Programme
on
"Recent Advances in Power Electronics Drive and Renewable Energy"
In association with

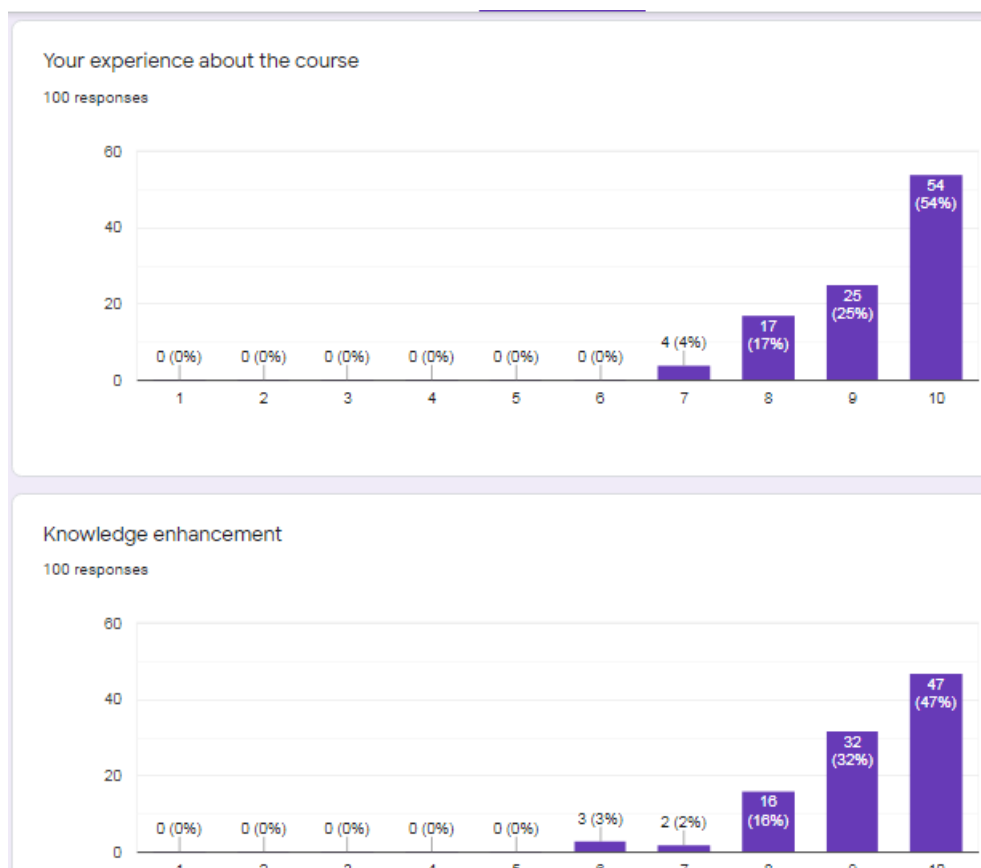


Organised By
Rajasthan Technical University, Kota
&
Poornima College of Engineering, Jaipur

Certificate

This is to certify that	Name	of
College Name	has participated in the one week	
Faculty Development Programme on "Recent Advances in Power Electronics Drive and Renewable Energy" held from 15.09.2020 to 19.09.2020		
Mahendra Coordinator RTU, Kota	Vinod Coordinator (Poornima College of Engineering, Jaipur)	 Director & Principal (Poornima College of Engineering, Jaipur)

FEEDBACK ANALYSIS:



Dr. Mahesh Bunde
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-0, FIICO Institutional Area
Sitapura, JAIPUR

❖ **LIST OF PARTICIPANTS:**

S. No	Participant Name
1	AyushGoyal
2	Mukesh Chand
3	Tushar Sharma
4	Rajendra Singh
5	P. Bambhu
6	Pinky Sharma
7	Amit Jain
8	Pushpendra
9	DivyaRastogu
10	PrashantChahar
11	Sayeeda
12	AnkitaChoudhary
13	MangalaPatil
14	Thosara
15	Trilok Chand
16	V S Meera
17	ShubhamPatwari
18	Anil Bhargava
19	Vishnu Shamra
20	Vaibhav Jain
21	Poojajain
22	Man mahendra Singh
23	Dasmanarini
24	Uttam Gupta
25	VivekSharna
26	Vidvi
27	Suresh sharma
28	Raj kumar Jain
29	Keerthikumar
30	Manju
31	ChhaviSaxena
32	Krishna Reddy
33	Deepikasharma
34	Garmima Gupta
35	Manoj
36	Gauravsharma
37	BhumikaGoyal
38	Surendra Sharma
39	Ali Shoyeb
40	Bhaskar Sharma
41	ManSinghMeena
42	UshaKushwah
43	SushilPrajapati
44	MohitMahawar
45	Dinesh Jatav
46	Sunil Jangid
47	P K Sharma
48	Gunjan Dixit
49	Sanju Gupta
50	PmakajKhandelwal
51	HemantSrivastava
52	Naresh Kumar
53	Suneetha
54	Anand Sharma