



**ARKA JAIN
University**
Jharkhand



Circular

Ref. No. AJU/AD/ENGG/037/2025-26

Date: 19.08.2025

The expert Lecture on "Power Electronics" is going to be jointly organized by Department of Electrical and Electronics Engineering, School of Engineering & IT, and ARKA JAIN University in association with Innovation Council Cell on 24/08/2025 for Diploma 5th Semester EEE Students.

Link for registration: <https://forms.gle/fRJW6EETfZmkBkgb6>

Mode of learning: ONLINE Mode

Registration fee: Nil

Max no. of Participants: 60

Last Date for Registration: 23.08.2025 (till 7:00.P.M)

Coordinators:

Prof. Taniya Ghosh(taniya.g@arkajainuniversity.ac.in)

Convenor:



Dr. Ashwini Kumar
Assistant Dean
School of Engineering & IT
Arka Jain University, Jharkhand

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EXPERT LECTURE ON “POWER ELECTRONICS”

Date of Event	24/08/2025
Name of the Event	Expert Lecture on “POWER ELECTRONICS”
Type of the Event	Skill Development on Power Electronics
Conducted by	School of Engineering & IT, ARKA JAIN UNIVERSITY JHARKHAND
Resource Person	Prof. Bibun Chandra Naik Assistant Professor, Department of Electrical Engineering Black Diamond College of Engineering & Technology
Convener	Dr. Ashwini Kumar
Co-Ordinator	Prof. Taniya Ghosh (Assistant Professor)
No. Of Participants	22

OBJECTIVE:

Objective of the Power Electronics Expert Lecture

1. **To provide in-depth knowledge** of advanced concepts, design principles, and control techniques in power electronics.
2. **To highlight recent trends and innovations** in power electronic devices, converters, and systems used in industrial, automotive, renewable energy, and consumer applications.
3. **To bridge the gap between theory and practice** by sharing real-world case studies, research insights, and industry applications.
4. **To enhance understanding of emerging technologies** such as wide-bandgap semiconductors (e.g., SiC, GaN), smart grid integration, and energy-efficient power conversion.
5. **To encourage interdisciplinary learning and collaboration** among students, faculty, and industry professionals.
6. **To inspire innovation and research** in power electronics by discussing current challenges and future directions.

DETAILS:

An Expert Lecture on Power Electronics was organized by the school of Engineering & IT, ARKA, JAIN University on August 24, 25. The Expert Lecture aimed to provide participants with comprehensive knowledge and insights into the field of Power Electronics. The session covered a wide range of topics, including the fundamentals of power electronic converters, applications in

renewable energy systems, electric vehicles, and the role of power electronics in modern industrial automation. The objective of the lecture was to enhance understanding of the significance of power electronics in the current technological landscape, and to introduce participants to emerging trends, such as the use of wide-bandgap semiconductors, energy-efficient systems, and the integration of power electronics in smart grid technologies. The event was conducted in online mode via Google Meet. The resource person for the lecture was Prof. Bibun Chandra Naik, Asst. Professor, Black Diamond College of Engineering and Technology and this Successfully coordinated by Prof. Taniya Ghosh (Asst. Professor) Dept. of E.E.E., School of Engg. & I.T.

OUTCOMES:

1. Enhanced Understanding of Core Concepts

Participants gained a solid understanding of the fundamental principles of power electronics, including the operation of various converters (AC-DC, DC-DC, DC-AC) and their applications.

2. Exposure to Emerging Technologies

The lecture introduced participants to cutting-edge developments in power electronics, such as the use of wide-bandgap semiconductors (SiC and GaN), smart power modules, and digital control techniques.

3. Insight into Real-World Applications

Participants learned how power electronics is crucial in modern applications like electric vehicles, renewable energy systems (solar, wind), motor drives, and industrial automation.

4. Awareness of Design and Efficiency Challenges

The session highlighted key challenges in designing power electronic systems, such as thermal management, switching losses, electromagnetic interference (EMI), and overall system efficiency.

5. Encouragement for Research and Innovation

The expert lecture inspired students and faculty members to explore research opportunities in power electronics and consider innovative solutions to current engineering problems.

6. Interdisciplinary Learning

The event fostered connections between electrical engineering and other domains like control systems, embedded systems, and energy management.

7. Skill Development for Career Advancement

The knowledge shared during the session equipped participants with practical insights that can enhance their technical skills and support their career development in the power and energy sectors.

POSTER OF THE EVENT

**ARKA JAIN
University**
Jharkhand

**NAAC
GRADE
A**
ACCREDITED UNIVERSITY

**INSTITUTION'S
INNOVATION
COUNCIL**
(Ministry of Education Initiative)

Poster of the Expert Lecture: Power Electronics

PHOTOS OF THE EVENT

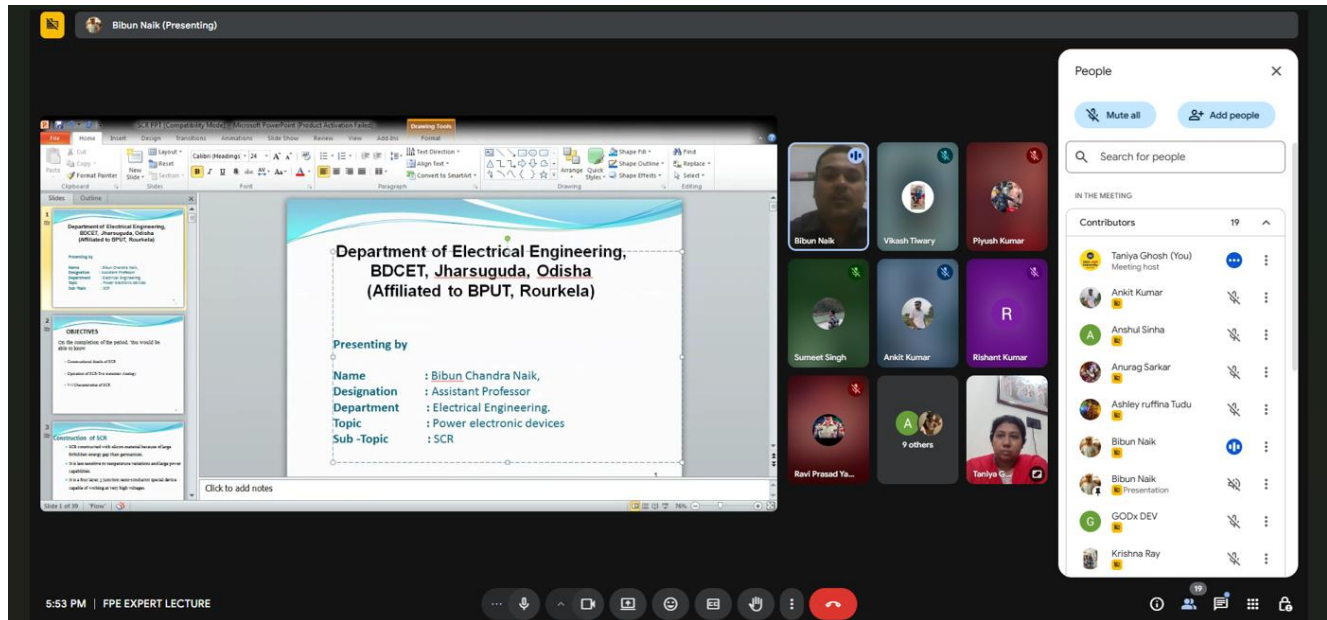


Fig 1: Screenshot of the Expert Lecture

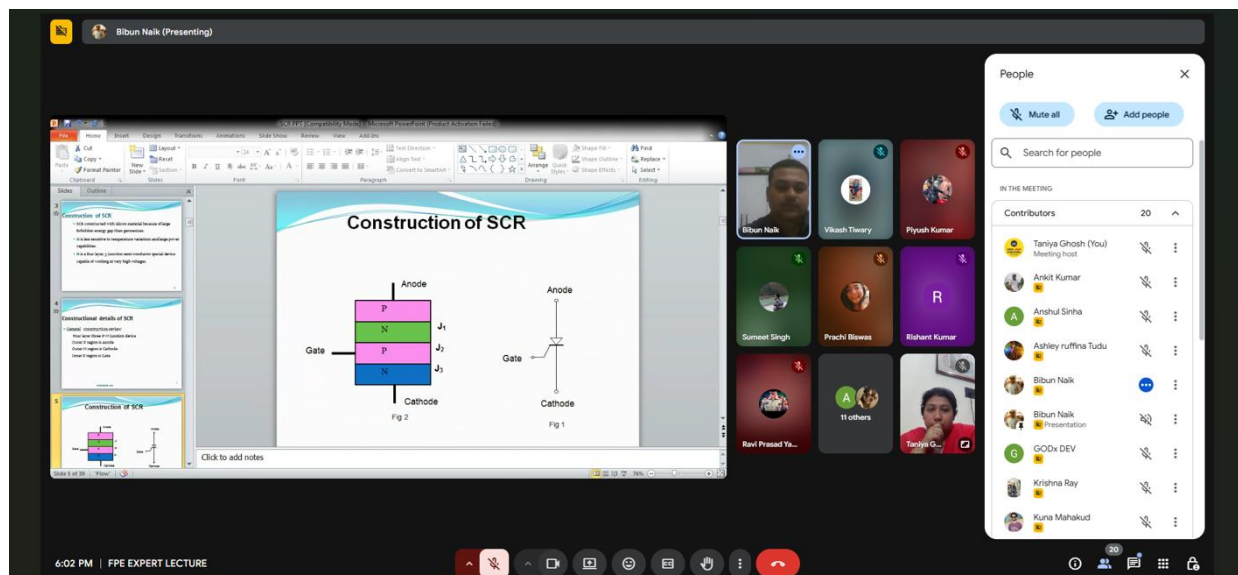


Fig 2: Screenshot of the Expert Lecture

FEEDBACK ANALYSIS PARTICIPANTS

Attending the Session

Student Feedback Analysis							
S. no	Description	Rating Scale					Total
		1	2	3	4	5	
1	I'm happy with the amount of information presented in today's sessions.	0	0	0	5	16	21
2	Did the event help you with new learnings or knowledge?	0	0	0	0	21	21
3	The duration of the event was just right. (Not too long or not too short)	0	0	0	20	1	21
4	Would you say the speakers or presenters were knowledgeable?	0	0	0	0	21	21
5	Overall, how satisfied were you with the event?	0	0	0	05	16	21

LIST OF PARTICIPANTS

mayanksrivastava546@	24	Mayank Srivastava	AJU/230967
asmitanag7@gmail.com 07		Asmita Nag	AJU/230308
tuduashleyruffina@gmail 056		Ashley Ruffina Tudu	AJU/231902
krishnaray862@gmail.co 08		Krishna Ray	AJU/230369
kumarirashmi0106@gm	13	Rashmi kumari	AJU/230606
singhsumeet61297@gm	63	SUMEET	AJU/232072
pradhanavishek324@gm 023		AVISHEK PRADHAN	AJU/230951
paulatanu537@gmail.cc DEEE/012		Atanu Paul	AJU/230585
rishantk678@gmail.com 04		Rishant kumar singh	AJU/230112
anshul05sinha@gmail.c	81	Anshul Sinha	AJU/232333
kushwahashravan01@g 002		Shravan Kumar	AJU/230069
dgope4918@gmail.com	20	Dev Gope	AJU/230900
paulatanu537@gmail.cc DEEE /012		Atanu Paul	AJU/230585
priyanshukumar979859, 003		Priyanshu Kumar	AJU/230092
hk184024@gmail.com	49	HARSH KUMAR	Aju/231760
rajeshprasadyadav7856	54	Rajesh Prasad Yadav	AJU/231821
kunamohakud35@gmai	77	Kuna Mahakud	Aju/232250
kumarritik8612@gmail.c	72	ritik kumar	AJU/232141
nirajkumar08092006cor	28	Niraj kumar	AJU/231215
ankitkumar525550@gm	74	ankit kumar	AJU/232169
ksnigdha84@gmail.com	1	Snigdha karmakar	Aju/230031