

About (URP: MPSBHI)

The main objective of the FDP entitled "*Unveiling the Research Process: Methodology, Problem Identification, and Simulation-Based Hardware Implementation*" is to provide a comprehensive and detailed exploration of the research process in the field of Electrical Engineering. It aims to shed light on various aspects such as research methodology, problem identification, literature survey, and the scope of research and its result validation in different areas of Electrical Engineering. Additionally, the objective is to delve into the intricacies of implementing research work through simulation and coding techniques. By doing so, the objective is to equip researchers, scholars, and practitioners with valuable insights, knowledge, and practical guidance to enhance their understanding and proficiency.

Resource Persons

Faculty and industrial experts from various institutions of national importance such as,

1. Dr. Nitai Pal, Asso. Prof., IIT(ISM) Dhanbad.
2. Dr. Arun Verma, Asso. Prof., IIT Jammu.
3. Dr. Arup Kumar Goswami, Prof. & HOD, NIT Silchar
4. Dr. Ravi Bhusan, Asst. Prof, NIT Jamshedpur
5. Dr. Ravi Raushan, Asst. Prof, NIT Surathkal
6. Dr. Anamika Yadav, Prof. & HOD, NIT Raipur.
7. Dr. Murli Manohar, Asst. Prof, BIT Sindri
8. Dr. Abhishek Pal, Asst. Prof, Thaper University
9. Dr. Himanshu Sharma, Asst. Prof, SRM University.
10. Dr. Rohit Verma, Asst. Prof, M.J.P. Rohilkhand University
11. Dr. Neeraj Priyadarshi, Principal, MIT Purnea Bihar
12. Mr. Jagannath Samantary, Senior Engineer, Math works.
13. Dr. Faizan Arif Khan, Post doctoral Researcher, Malaysia.

Chief Patron

Prof. M.R. Khan
Principal, GEC Raipur

Patron

Prof. R.S. Parihar
HOD, EEE, GEC Raipur

Principal Coordinator

Dr. Jagannath Patra
Asst. Professor, Dept. of EEE, GEC Raipur

Co-Coordinator

Dr. Ashiwani Yadav
Mr. Arsh Khan

Asst. Prof., EEE
Asst. Prof., EEE

Organizing Committee

1. Mr. V.N. Singh
2. Mrs. Poorva Sharma
3. Ms. Dewashri Pansari
4. Mrs. Pratibha Shukla
5. Mr. Abhay Shukla
6. Mr. Ishwar Singh Chandra
7. Ms. Pragya Singh

Asso. Prof., EEE
Asst. Prof., EEE
Asst. Prof., EEE
Asst. Prof., EEE
Asst. Prof., EEE
Asst. Prof., EEE
Asst. Prof., EEE

One Week

Faculty Development Program (FDP) on

*Unveiling the Research Process:
Methodology, Problem Identification, and
Simulation-Based Hardware
Implementation*

During 31th July to 4th August -2023

Principal Coordinator

DR. JAGANNATH PATRA

Asst. Professor

email: jagannath.iitdhanbad@gmail.com

Mob : +91-7991109652



ORGANIZED BY

**Department of Electrical and Electronics
Engineering
Government Engineering College,
Raipur
Chhattisgarh - 492015 (India)**

About GEC, Raipur:

Government Engineering College, Raipur was established in 2006 as a Centre for imparting quality Engineering Education. It is affiliated to Chhattisgarh Swami Vivekananda Technical University, Bilai and recognized by AICTE, New Delhi. GEC, Raipur holds accreditation from the NBA (National Board of Accreditation). The collage is functioning in a large unified academic campus, having sound and self - sufficient infrastructure. This institute has been engaged in nurturing minds through a rich heritage of academic excellence. Essentially a hub of bustling student activities the beautiful campus has been a second -home to thousands of students in their journey to challenge the times. The main objective of the institute is to coordinate, supervise, regulate, guide and provide leadership in all aspects of technological and engineering education and to provide economical and quality education to the aspirants. Three AICTE sponsored project was completed in the department of Electrical Engineering. Six research centre approved by CSVTU, Bilai are established and the PhD program are going on through all the research centres.

CONTENTS OF FDP:

- **Introduction to Research Methodology in Electrical Engineering.**
- **Problem Identification in Electrical Engineering Research.**
- **Literature Survey and Review.**
- **Scope of Research in Different Areas of Electrical Engineering.**
- **Research Implementation through Simulation and Coding.**
- **Case Studies and Examples.**
- **Best Practices and Tips for Effective Research in Electrical Engineering.**
- **Future Directions and Emerging Trends.**
- **Conclusion and Recommendations.**

How to register?

1. One can register after payment using the google form link below:

<https://forms.gle/GSWFzS2Np37XLrW89>

2. In case if there is any issue regarding registration then one can email on id: piya2807@gmail.com.

One Week

Faculty Development Program (FDP) on

“Unveiling the Research Process: Methodology, Problem Identification, and Simulation-Based Hardware Implementation”

During 31th July to 4th august -2023

Who Can Apply?

All Faculty members and Research scholar from. / govt. Aided/ Self-Financing Engineering Colleges and Polytechnic Colleges.

Mode of FDP:

FDP will be conducted through online mode.

Registration Fee:

Faculty-200/-, Research scholar 100/-

Account Details (For Payment):

NAME OF BANK: IDBI BANK

ACCOUNT NO :1292104000006040

IFSC CODE: IBKL0001292

BRANCH NAME: SEJBAHAR, RAIPUR, C.G

Attendance:

Candidate should attend 90 % of class to get the certificate.

Important dates:

Deadline for registration: 30th July 2023 (till 8pm)

Intimation to selected participants: 30th July 2023 (after 8pm)



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING GOVERNMENT ENGINEERING COLLEGE, RAIPUR

Old Dhamtari Road, Sejbahar, Raipur (C.G) 492015 Phone: (0771)
2103147, Web Site: www.gecraipur.ac.in,

E-mail: gecreedept@gmail.com

Tentative Time-Table of FDP (31-July to 4-Aug-2023)

	09:30 am to 11:00 noon	11:00 to 11:15pm	11:15 to 12:45 pm	12:45 to 1:15 pm	1:15 to 2:45 pm	2:45 pm to 3:00 pm	3 pm to 4:30 pm
31-07-23	<u>Inauguration and Lecture-1, (N.P.)</u> Introduction to Research Methodology-I (Introduction /Research Design /Research Paradigm /Research Approach /Data Collection Methods)	Tea break	<u>Lecture-2, (NPI)</u> Introduction to Research Methodology-II (Sampling Techniques/ Data Analysis Methods /Ethical Considerations in Research /Limitations of the Study/Conclusion)	Lunch break	<u>Lecture-3, (H.S.)</u> Problem Identification in Electrical Engineering Research (Identifying Research Problems / Challenges and Issues Research/ Defining Research Objectives/ Formulating Research Questions/ Recognizing Research Gap / Topic Selection/ Scoping the Research Problem)	Tea break	<u>Lecture-4, (NPI)</u> Literature Survey and Review (A Comprehensive Survey/ Review of Related Literature/ A Critical Analysis/ Literature Synthesis and Analysis/ Critical Review of Existing Literature/ Examining Prior Research: A Literature Survey/ Literature Background and Analysis)
01-08-23	<u>Lecture-5, (A.V)</u> Electric Vehicle Challenges and Opportunities. (Research Implementation through simulation/ Hardware, Case Studies-1)		<u>Lec-6, RP4 (AKG)</u> Voltage Sag Study (Research Implementation through Simulation/ Coding/Case Studies-2)		<u>Lecture-7, (RR)</u> Multilevel Inverter and Electric Drive Application (Research Implementation through Simulation/Hardware Coding/Case Studies-3)		<u>Lecture-8, (RB)</u> Renewable Energy Integration (Research Implementation through Simulation/Hardware Coding/Case Studies-4)

Note: NP: Dr. Nitai Pal, AV: Dr. Arun Verma, RV: Dr. Rohit Verma, HS: Dr. Himanshu Sharma, RR: Dr. Ravi Raushan, RB: Dr. Ravi Bhusan, AY: Dr. Anamika Yadav, FAK: Dr. Faizaan Arif Khan, NPI: Dr. Neeraj Priyadarshi, AKG: Dr. Arup Kumar Goswami, MM: Dr. Murli Manohar, AP: Dr. Abhishek Pal, JS: Dr. Jagannath Samantaray



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02-08-23	<u>Lecture-9, (A.V.)</u> Electric Vehicles Charger's recent advancement (Research Implementation through simulation/ Hardware, Case Studies-5)	Tea break	<u>Lecture-10, (JS)</u> Research scope and case study in Advanced control system. (Research Implementation through Simulation/Hardware Coding/Case Studies-6)	Lunch break	<u>Lecture-11, (FAK)</u> Renewable Energy Integration using HOMER. (Research Implementation through Simulation/Hardware Coding/Case Studies-8)	Tea break	<u>Lecture-12, (AY)</u> Research scope and case study in Micro-grid (Research Implementation through Simulation/Hardware Coding/Case Studies-7)
03-08-23	<u>Lecture-13, (MM)</u> Electrical Drive Application-I, DC Drive (Research Implementation through simulation/ Hardware, Case Studies-9)		<u>Lecture-14, (AP)</u> Electrical Drive Application-I, AC Drive) (Research Implementation through simulation/ Hardware, Case Studies-10)		<u>Lecture-15 (MM),</u> Electrical Drive Application-I, Induction motor (Research Implementation through simulation/ Hardware, Case Studies-11)		<u>Lecture-16, (AP)</u> Electrical Drive Application-I, BLDC (Research Implementation through simulation/ Hardware, Case Studies- 12)
04-08-23	<u>Lecture-17, (JS)</u> Hardware based implementation using D- Space (Research Implementation through simulation/ Hardware, Case Studies-13)		<u>Lecture-18, (R.V)</u> Research application on EMI Filter/ Conclusion/ Future Directions and Emerging Trends.		Closing Ceremony		

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31-07-2023	Mon	NP	Tea break	NPI	Lunch break	HS	Tea break	NPI
01-08-23	Tues	AV		AKG		RR		RB
02-08-23	Wed	AV		JS		FAK		AY
03-08-23	Thu	MM		AP		MM		AP
04-08-23	Fri	JS		RV		Closing Ceremony		

Note:

NP	Dr. Nitai Pal	AP	Dr. Abhishek Pal
AV	Dr. Arun Verma	RV	Dr. Rohit Verma
MM	Dr. Murli Manohar	RR	Dr. Ravi Raushan
JS	Jagannath Samantary	RB	Dr. Ravi Bhusan
AKG	Dr. Arup Kumar Goswami	FAK	Dr. Faizaan Arif Khan
NPI	Dr. Neeraj Priyadarshi	AY	Dr. Anamika Yadav
HS	Himanshu Sharma		