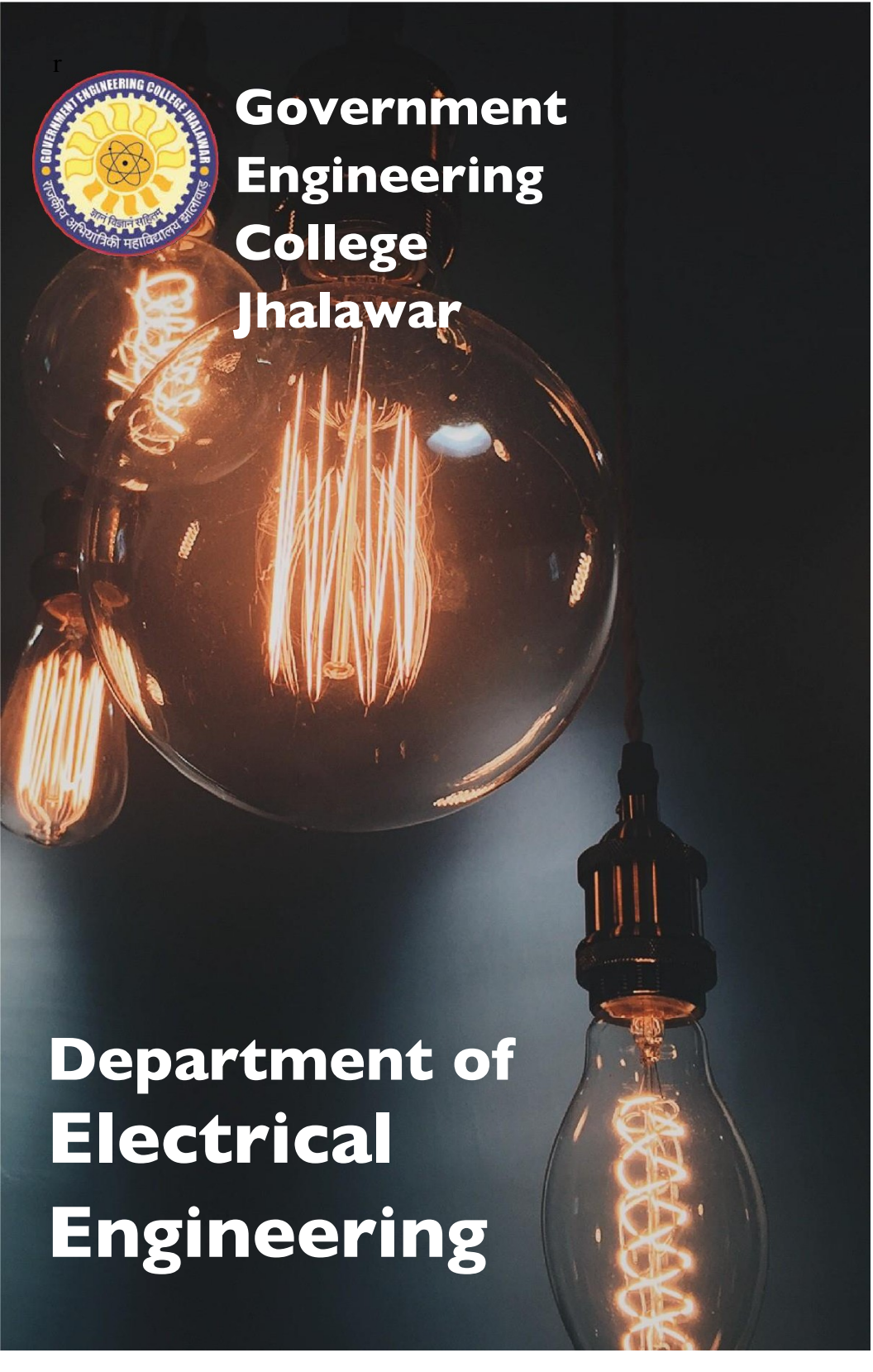




Government Engineering College Jhalawar

Department of
Electrical
Engineering



Message from Head of the Department

Welcome to the Department of Electrical Engineering at GEC Jhalawar. The department has a rich legacy of innovation and creativity in teaching and research for the past 10 years. Well-equipped laboratory with skilled lab instructors and technicians are available. The UG curriculum provides strong base to the students in Electrical Engineering and provides exposure to the latest technologies.

We have excellent faculty with a rich experience in research and teaching in the broad areas of Electrical engineering. The research interests of the faculty members encompass a wide gamut of sub-disciplines of Electrical Engineering. Collaboration with faculty members from other disciplines, both within and outside the institute, is encouraged. The research activity of the department includes fundamental research, sponsored and consultancy projects, and is carried out with active participation of the students, faculty, staff and research engineers.

Dr. Neeraj Garg
Assistant Professor (H.O.D)
EE Department



About the Department.

The Department of **Electrical Engineering** came into existence in the year 2009 offering B. Tech. degree in Electrical Engineering with an intake of 60 students. The department has been flourishing in all respect and is now full-fledged with competent, experienced and dedicated faculty and well-equipped laboratories with facilities to cater to the all-round development of the students in process. Electrical Engineering broadly involves electricity, electromagnetism and electronics which are essential in modern human life and industries. The present day academic activities of electrical engineering are very broad due to these reasons. The electrical engineering department at GECJ has specialized faculties in all important areas of electrical engineering such as power systems, power electronics & drives, control systems, electrical machines, and measurements, computer lab.



Academic Program offered

B.Tech Program of the department has developed continuously from 2009 onwards with new academic activities being introduced at regular intervals. It is a four-year course to which students are selected from all over the nation.

Sanctioned Intake – 60

Vision

To evolve as a center of excellence in technical education and research related to Electrical Engineering by preparing students as the globally competitive and socially sensitized engineering graduates to contribute for sustainable development of industry and society.

Mission

M1: Impart the fundamental knowledge of Electrical, Electronics and computational technology.

M2: Establish the foundation of the state of the art research facilities in emerging fields of Electrical Engineering.

M3: Provide the students a framework and mechanism for promoting collaborative and multidisciplinary activities to solve complex technological problems.

M4: Enable the entrepreneurial skills and competence integrated with teamwork, leadership, social and ethical qualities.

Short Term Goals

- To train students as competent Electrical Engineers to meet the requirements of industries.
- To strive for further improvement in academic performance of students.
- To improve placement of students.
- To closely monitor the progress of students. To inculcate human values and leadership qualities in the students.
- To enhance interaction with industries.
- To strengthen the alumni linkage for mutual benefit.
- To organize bridge courses on areas relevant to industries.
- To update the knowledge of the faculty in emerging areas.
- To motivate the faculty to undertake research work.
- To depute the faculty and students for implant training to industries during vacation.
- To train the supporting technical staff.

Long Term Goals

- To achieve excellence in undergraduate education.
- To promote research activities in the areas of non-conventional energy generation and power systems.
- To have at least 50% of faculty with doctoral degree in diverse areas.
- The students of the Department of Electrical Engineering are trained to become quality engineers, with adequate stress being laid on their personality development, paper presentation in seminars, group discussions etc., are some of the activities carried out by students.

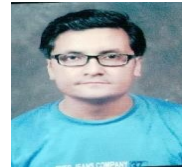
Faculty Profile Information

Dr. Neeraj Kumar Garg, Ph.D. (RTU Kota)
Assistant Professor (H.O.D)
Research Interest: Power system analysis,
Smart grid and Restructuring



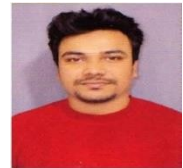
Dr. Ajay Sharma, Ph.D. (RTU Kota) Assistant Professor
Research Interest: Soft computing techniques for power systems.

Mr. Ashish Khandelwal, Ph.D.* (RTU Kota)
Assistant Professor
Research Interest: Soft computing techniques for power systems and Power system analysis.



Mr. Kishor Thakre, Ph.D.* (NIT Rourkela)
Assistant Professor (NPIU)
Research Interest: Power electronics converters and Renewable energy applications

Mr. Shailendra Gupta, Ph.D.* (IIT BHU)
Assistant Professor (NPIU)
Research Interest: Electrical machines & drives, Power electronics, EMFT and Renewable energy generation.



Mr. Nishant Dwivedi, M.Tech (MNIT Jaipur)
Assistant Professor (NPIU)
Research Interest: Power quality and Power system stability

Mr. Rahul Kumar Sah, M.Tech (NIT Kurukshera)
Assistant Professor (NPIU)
Research Interest: Resonant Power Converter.

Mr. Kushal Singh Shaktawat, M.Tech (NIT Kurukshetra)
Assistant Professor (NPIU)
Research Interest: Integrated power systems,
Renewable Energy , and Power System Optimization



Mr. Keshav Dutt, M.Tech (NIT Srinagar)
Assistant Professor (NPIU)
Research Interest: Electrical Power and Energy
System.

Mr. Ankita Chandrakar, M.Tech (NIT Raipur) Assistant
Professor (NPIU)
Research Interest: Power system and Optimization



Mr. Shantanu Kumar Sharma, M.Tech Assistant
Professor (Guest Faculty) Research Interest:
Power electronics & Electrical drives, and
Electrical machines.

Ms. Khushboo Gupta, M.Tech Assistant
Professor (Guest Faculty)
Research Interest: Power electronics, and
Non-conventional energy sources.



Mr. Giriraj Kumar Patidar, M.Tech
Assistant Professor (Guest Faculty)
Research Interest: Communication and Signal
processing.

Mr. Pramod Patidar, M.Tech Assistant

Professor (Guest Faculty)

Research Interest: Power Systems, and Electrical machines.






Mr. Mukesh Menariya, M.Tech

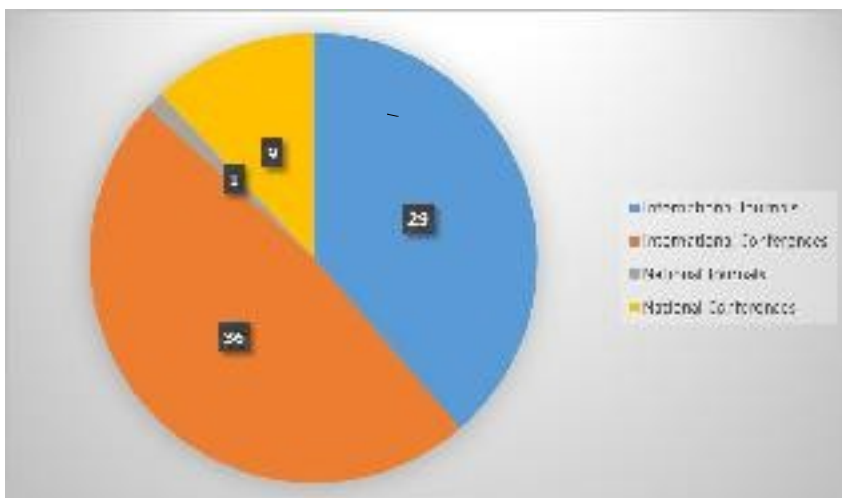
Assistant Professor (Guest Faculty)

Research Interest: Power system, and Electrical machines.

Technical Staff:

<p>Mr. Kuldeep Singh Polytechnic (Electrical) Lab Technician</p>	 A portrait of Mr. Kuldeep Singh, a man with dark hair, wearing a dark blue t-shirt, against a light blue background.
<p>Mr. Parshuram Meena,</p>	 A portrait of Mr. Parshuram Meena, a man with dark hair, wearing a light blue shirt, against a blue background.
	 A portrait of a man with dark hair, wearing a green and white checkered shirt, against a blue background.

Research Publications



Publications data 2009-2010 to 2017-2018

Workshops Conducted

The department of Electrical Engineering is actively engaged in organizing Workshops for faculty as well as students.

Total workshops organized - 10

Laboratory Facilities

Laboratory facilities provide flexible use of space and furnishings, combining features of traditional laboratories and classrooms. Adequate facilities, equipment, and supplies for laboratory experiences are inequitably distributed.

Electrical Machines Laboratory:

Electrical machine lab facilitates to conduct experiments on seven different panels for different tests. The experiments are based on the rotating machines and transformers. For performing these experiments, it has facilities of machines like 15 rotating machines, which include AC/DC motors, generators and some special machines. Apart from these, experiments are also being conducted on three 3 phase transformers.



Power Electronics Laboratory:

It is well equipped with kits required for the study of speed control of motors using converters, choppers, inverters etc. Also, the laboratory covers experiments on different types of commutation circuits. These are supplemented by basic apparatus for the study of the characteristics of SCR, FET, MOSFET, IGBT, etc.



Circuit and Measurements Laboratory:

It is well stocked with various bridges and apparatus for analysis of circuits. The behavior of capacitors and inductors under initial conditions are analyzed and several parameters like Z parameter, hybrid parameters and ABCD constants are also determined. Two port network analysis is also performed for different quantities calculation.

Control Systems Laboratory:

This lab facilitates to conduct experiments based on the basic and advanced control theory, and application using computer aided software. It has facilities to conduct experiments on closed loop speed control of AC and DC motors. It also has the facilities to perform studies on PID controllers, phase lag and lead controllers, synchro's etc. and DC motors.



Power Systems Laboratory:

It is equipped with 26 computers and Mi-Power package using which load flow studies, short circuit studies, optimal operation of power system relay co-ordination, stability studies etc., could be undertaken. Experiments on several relays such as differential relays, microprocessor-based relays and under frequency relays are performed. Designs of modern Sub-station are also discussed with emphasis on latest technology such as SCADA etc.

Computer Lab

Department of electrical engineering supports fully equipped computer lab with seating for up to 30 students/participants. The computer lab provides the computing, software, and network resources necessary to enable modern engineering education. The Lab include student PCs and one instructor PC



Some highlights and features of the computer lab include

1. Fluorescent and incandescent lighting.
2. Hard writing surfaces for easier note taking.
3. Whiteboard and markers.
4. Comfortable, ergonomic seating.
5. Computers (PC) with quick and easy audio/video adjustments.
6. A ceiling-mounted LCD projector.

Department Academic Improvement Practices



Expert Lectures / Seminars

Expert Lectures and seminars have been actively organized on various academic topics other than the regular curriculum of the department. It provides an additional, innovative and smart mode of learning.

Workshops

The workshops have been actively conducted on various academic / Industry oriented topics in the department. It helps the students for better understand of the additional curriculum topics.



Personal development / Remedial / Gate Classes

The department has implemented a scheme to conduct the personal development, Remedial and Gate classes in the regular academic time table. It provides better and improved teaching learning practices in the department.

Mentoring

The department has an active mentoring system in which faculty is assigned as a role of mentor for batch of students. The mentor clarifies doubts, solves additional problems, gives practical insight and provides moral support to students.

Student Activities and Participation



Industrial Training / Visit

Industrial training is a part of curriculum in the department where students are made to visit the respective domain in the industries/ manufacturers at the end of fourth and sixth semester. Also, Students are encouraged to undergo industrial visits once during a year to get an exposure of project management, lifelong learning through their ability to work independently and in the team work. Students of the electrical engineering get an insight of how theoretical knowledge taught in the curriculum is being implemented in practical domain and hence a glimpse of the work life after they passed out from the department/institute.



Student Projects

Student projects are done as a part of department curriculum. It is platform where students showcase their talents by doing innovative projects (hardware as well as software based) that strengthens their profile and increase the chance of employability. Students are encouraged to undertake projects related to their summer training/ internship. The projects follow the guidelines of environmental friendly, safety, ethics and cost. The projects progress is monitored continuously throughout the semester.

Clubs


- Urja Club.
- Computational and Control Club (Under proposal stage).

Co-curricular Activities



Apart from studies, the department of electrical engineering provides all round development to its students. Students here excel not only in academics but also in other co-curricular activities such as photography, Literature, Sports, and Music etc. We organise different activity, so that it can build curiosity, confidence, and humanitarian quality in the students.





Visit us on the Web

mail to us

Call us

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