**ABOUT THE INSTITUTE**

**VISION OF THE INSTITUTE**

***Realization of glimpses of a Golden India in the real (rural) India which lives and abounds in its villages. GNDEC will excel nationally and distinguish itself as a recognized pre-eminent leader to serve this 70% brotherhood through its socioeconomic upliftment by exposure of the have-nots to Engineering and Technology thereby grooming them as technically competent and intellectually-vital graduates through practically focused quality learning experience, and thus assuring productive careers for them.***

**MISSION OF THE INSTITUTE**

**1.** **Upliftment of Rural students through technical education.**

**2.** **Respond to local society needs by developing selected “targeted research projects”**

1. **Quality training programs in need based modern technology.**
2. **To maintain state-of-the-art infrastructure in laboratories.**
3. **To promote culture of self-employment.**
4. **To impart non-formal education to unemployed youth.**

**7.** **To inculcate moral, ethical, spiritual values in education at all levels.**

Towards the accomplishment of the vision, GNDEC offers Seven UG programs (all accredited by NBA, Tier-I, Washington Accord) and Twenty Three PG Programs (Ten Full-Time and Thirteen Part-Time). The institute also offers MCA and MBA programs. GNDEC is also Q.I.P. centre for Ph.D. in Electrical, Mechanical and Civil Engineering. The institute is scaling up its post graduate and under graduation education and research through TEQIP-II.

**ABOUT THE DEPARTMENT**

The department of **Electrical Engineering** started with an initial intake of 30 students in UG Program in 1957. At present the intake in UG program is 90. In 1982, the department started a part-time PG Program (Electrical Engg.) with an intake of 13 students and in 1997, a full time PG program (Power Engg.) with an intake of 13 students. At present the intake to full time PG program is 25 students. The department is an authorized research centre of Punjab Technical University for Ph.D. and its course work.Keeping in view the graduate attributes of ethical practices and social responsibility, green and clean energy obligation, the department has taken the initiative of starting a 50 kWp rooftop grid connected solar power plant in college premises. Also 150 kWp rooftop grid connected solar power plant is in the process of installation.

**VISION OF THE DEPARTMENT**

***To meet the challenges of new technological advances and to provide update knowledge in the state of the art technology, re-orientation and up-gradation of the curriculum to the level of industry relevant learning and training and thus to be a premier technical department of institute that strives continuously for excellence in education and research.***

1. **To provide knowledge based technology and service to meet the needs of society globally.**
2. **To help in building national capabilities for excellent energy management and to explore non-conventional energy sources.**
3. **To create research oriented culture and to provide competent consultancy.**
4. **To create and sustain environment of learning in which students acquire knowledge and learn to apply it professionally with due consideration of ethical and economical issues.**
5. **To be accountable through self evaluation and continuous improvement.**

**MISSION OF THE DEPARTMENT**

PROCESS OF SETTING UP OF VISION AND MISSION OF THE DEPARTMENT

**PROGRAMME EDUCATIONAL OBJECTIVES**

**PROGRAMME OUTCOMES**

**MAPPING BETWEEN DEPARTMENT PEOs AND MISSION OF INSTITUTE**

The mission statement of the Institute envisages promoting the rural masses to face the challenges of fast changing world. The mapping of department PEOs with mission of the Institute is as shown below:

* VS: Very Strong
* S: Strong
* W: Weak

**PEOs of the DEPARTMENT**

1. Provide graduates with an outstanding education and research skills and knowledge to further their career aspirations.
2. Prepare students to excel in post graduate programs to succeed in industry, technical profession through rigorous education.
3. Prepare graduates for PhD programs.
4. Inculcate in students professional and ethical attitude, effective communication skills, teamwork skills, managerial skills, multidisciplinary approach and an ability to relate engineering issues to broader social context.

**MISSION OF THE INSTITUTE**

1. Upliftment of Rural students through technical education.
2. Respond to local society needs by developing selected “targeted research projects”
3. Quality training programs in need based modern technology.
4. To maintain state-of-the-art infrastructure in laboratories.
5. To promote culture of self-employment.
6. To impart non-formal education to unemployed youth.
7. To inculcate moral, ethical, spiritual values in education at all levels.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **PEO/****Institute Mission** | **1** | **2** |  **3** | **4** | **5** |  **6** |  **7** |
| **PEO 1** |  | S |  |  | VS |  | S |
| **PEO 2** |  | S | S |  | VS |  | S |
| **PEO 3** |  | VS | S |  |  |  | S |
| **PEO 4** | W |  |  | VS | S | S | VS |

**MAPPING BETWEEN PEOs AND POs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PEO/PO** | **PO 1** | **PO 2** | **PO 3** | **PO 4** | **PO 5** | **PO 6** |
| **PEO 1** | VS |  |  | VS |  |  |
| **PEO 2** |  | S | S |  |  |  |
| **PEO 3** |  |  | S |  | S |  |
| **PEO 4** |  | S |  |  |  | VS |

VS : Very Strong

 S : Strong

 W : Weak

**PROGRAM CURRICULUM**

The structure of the curriculum provides both breadth and depth across the range of engineering topics relevant to Power Engineering. The program is spread over four semesters and it has total twelve theory subjects (six core, four program electives and two open electives which are chosen from the list of seventeen elective subjects) and two practical courses besides pre-thesis seminar, pre-thesis project and Thesis.

The structure is designed in such a manner that along with enhancing the knowledge of engineering problems, post- graduates are fortified with the lab work for searching advanced engineering solutions, technical services for many diverse fields.

Students are also encouraged to select best technical topic ideas on latest technology for their pre-thesis seminar and to explore a variety of research methods during pre-thesis project. Besides this, the thesis work develops the ability to use the modern engineering tools necessary for engineering practice including research areas.

After conferred Autonomous Status by University Grants Commission (UGC), New Delhi in 2012 under section 2(f) and 12(B) of UGC Act 1956, college has administrative power to make decisions regarding changes in curriculum for refinement based on future expected scenario, current industry need, program outcomes and program educational objectives. Program Co-ordinator and Faculty members have taken the initiative and identified changes in terms of courses for improvement of curriculum. The administrative system BOS, Academic Council and Program Assessment Committee have implemented necessary changes like Choice based Credit system and Thesis Grading system from 2014 admission batch.

SYLLABUS SCHEME

M.TECH. (POWER ENGG.) FULL-TIME

2014 ONWARDS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Description of Subject** | **No. of Subjects** | **Credits per Subject** | **Total Credits** |
| 1 | Core | 6 | 4 | 24 |
| 2 | Program Elective (Department Elective)  | 4 | 3 | 12 |
| 3 | Program Elective (Open Elective) | 2 | 3 | 6 |
| 4 | Laboratory | 2 | 2 | 4 |
| 5 | Pre Thesis Seminar | 1 | 1 | 1 |
| 6 | Pre Thesis Project | 1 | 3 | 3 |
| 7 | Thesis  | 1 | 15 | 15 |
| **G. Total** | 65 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Subject Code** | **Subject Name** | **Description of Subject** | **Credits** |
| **SEMESTER – I** |
| 1 | MTPEE – 501 | Advanced Power System Analysis  | Core | 4 |
| 2 | MTPEE – 502 | Power System Operation and Control | Core  | 4 |
| 3 | MTPEE – 503 | Advanced Electrical Machines | Core | 4 |
| 4 | MTPEE – 507  | Power System Software Lab | Core | 2 |
| 5 | MTPEE – XXX | Department Elective - I | Program Elective | 3 |
| 6 | MTPEE – XXX | Department Elective - II | Program Elective  | 3 |
| Total Credit | 20 |
| **SEMESTER – II** |
| 1 | MTPEE – 504 | HVDC Transmission  | Core | 4 |
| 2 | MTPEE – 505 | Power System Protection  | Core | 4 |
| 3 | MTPEE – 506 | EHVAC Transmission  | Core | 4 |
| 4 | MTPEE – 508 | Industrial Automation Lab | Core | 2 |
| 5 | MTPEE – XXX | Department Elective - III | Program Elective  | 3 |
| 6 | MTXX – XXX  | Open Elective - I | Program Elective. | 3 |
| Total Credit | 20 |
| **SEMESTER – III** |
| 1 | MTPEE – XXX | Department Elective - IV | Program Elective | 3 |
| 2 | MTXX – XXX | Open Elective - II | Program Elective | 3 |
| 3 | MTPEE – 509 | Pre Thesis Seminar  | Core | 1 |
| 4 | MTPEE – 510 | Pre Thesis Project | Core | 3 |
| Total Credit | 10 |
| **SEMESTER – IV** |
| 1 | MTPEE – 511  | Thesis  | Core  | 15 |

|  |
| --- |
| **LIST OF COURSE SUBJECTS**  |
| **Sr. No.** | **Subject code** | **Course title** | **Type** | **L** | **P** | **Credits** |
| 1 | MTPEE – 501 | Advanced Power System Analysis | Core | 4 | - | 4 |
| 2 | MTPEE – 502 | Power System Operation and Control  | Core | 4 | - | 4 |
| 3 | MTPEE – 503 | Advanced Electrical Machines | Core | 4 | - | 4 |
| 4 | MTPEE – 504 | HVDC Transmission | Core | 4 | - | 4 |
| 5 | MTPEE – 505 | Power System Protection | Core | 4 | - | 4 |
| 6 | MTPEE – 506 | EHVAC Transmission | Core | 4 | - | 4 |
| 7 | MTPEE – 507 | Power System Software Lab - I | Core | - | 4 | 2 |
| 8 | MTPEE – 508 | Industrial Automation Lab - II | Core | - | 4 | 2 |
| 9 | MTPEE – 509 | Pre Thesis Seminar | Core | - | 1 | 1 |
| 10 | MTPEE – 510 | Pre Thesis Project | Core | - | 3 | 3 |
| 11 | MTPEE – 511 | Thesis | Core | - | - | 15 |
| 12 | MTPEE – 601 | Research Methodology | Program Elective | 3 | - | 3 |
| 13 | MTPEE – 602 | Advanced Power Electronics | Program Elective | 3 | - | 3 |
| 14 | MTPEE – 603 | Digital Control System | Program Elective | 3 | - | 3 |
| 15 | MTPEE – 604 | Energy Efficient Machines | Program Elective | 3 | - | 3 |
| 16 | MTPEE – 605 | Power System Planning | Program Elective | 3 | - | 3 |
| 17 | MTPEE – 606 | Power Systems Stability | Program Elective | 3 | - | 3 |
| 18 | MTPEE – 607 | Advanced Electrical Drives | Program Elective | 3 | - | 3 |
| 19 | MTPEE – 608 | Microprocessors & theirapplications | Program Elective | 3 | - | 3 |
| 20 | MTPEE – 609 | Industrial Instrumentation and Process Control  | Program Elective | 3 | - | 3 |
| 21 | MTPEE – 610 | Power System Transients | Program Elective | 3 | - | 3 |
| 22 | MTPEE – 611 | Operation and Modeling of Restructured Power System  | Program Elective | 3 | - | 3 |
| 23 | MTPEE – 612 | Power System Reliability | Program Elective | 3 | - | 3 |
| 24 | MTPEE – 613 | Renewable Energy Resources | Program Elective | 3 | - | 3 |
| 25 | MTPEE – 614 | Reliability Engineering | Program Elective | 3 | - | 3 |
| 26 | MTPEE – 615 | Optimization Techniques | Program Elective | 3 | - | 3 |
| 27 | MTPEE – 616 | Neural Networks & Fuzzy Logic | Program Elective | 3 | - | 3 |
| 28 | MTPEE – 617  | Economics and Organization of Power Sector | Program Elective | 3 | - | 3 |

**COURSE OUTCOMES**

The following are the course outcomes of the syllabus scheme that was followed for the session 2014 onwards.

|  |  |  |
| --- | --- | --- |
| **Course Name** | **Code** | **Course Outcomes** |
| Advanced Power System Analysis | MTPEE – 501 | 1. Students can formulate network matrices by singular and non singular transformation.
2. Students can formulate bus impedance matrices for single phase and three phase.
3. Students demonstrate the knowledge of performing short circuit calculations
4. Students are aware of conditions for various faults.
 |
| Power System Operation and Control | MTPEE – 502 | 1. Students can appreciate the difference in characteristic curves for different types of generation.
2. Students can solve the economic dispatch problem.
3. Students are aware of techniques of hydrothermal coordination.
4. Students are aware of new concepts of energy banking, power trading.
 |
| Advanced Electrical Machines | MTPEE – 503 | 1. Outlines the phenomenon of machines and transformers in formulating and solving electrical engineering problems.
2. An ability to engage in research activities as demonstrated during their course work.
3. Graduates will have an ability to understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.
4. Demonstration of knowledge gained for evaluating job related problems and developing lifelong learning.
 |
| HVDC Transmission | MTPEE – 504 | 1. Students are able to appreciate the advantages of HVDC transmission over EHV AC Transmission
2. Students are aware of various types of HVDC links and their advantages
3. Students have learnt about reactive power compensation.
4. Students are able to demonstrate knowledge of synchronous and asynchronous links.
 |
| Power System Protection | MTPEE – 505 | 1. Students are able to appreciate the importance of comparators.
2. Students can apply their knowledge of various types of transmission line protection techniques.
3. Students can apply knowledge of transformer protection, bus-bar protection, generator protection to their work in field.
4. Students can apply knowledge of circuit breakers to suggest suitable breaker for a particular application.
 |
| EHVAC Transmission | MTPEE – 506 | 1. The students are aware of the various types of tower configurations for EHVAC transmission.
2. Students can calculate the voltage gradient of EHVAC lines.
3. They can use knowledge of electrostatic fields of EHV AC lines to predict their biological aspects.
4. They can apply knowledge of steady state and transient limit in design of EHV Ac transmission.
 |
| Power System Software Lab - I | MTPEE – 507 | 1. Students are aware of various softwares available for analysis of power system.
2. They can use the softwares for formulation of impedance and admiitance matrices.
3. They can use their knowledge to perform the load flow studies.
4. They are able to perform transient analysis using the software.
 |
| Industrial Automation Lab - II | MTPEE – 508 | 1. Students can demonstrate the basic knowledge of PLC.
2. They are able to design simple working programs on PLC.
3. They can appreciate the use of PLC for process control in industry.
4. They have knowledge of SCADA system and its applications.
 |
| Pre Thesis Seminar | MTPEE – 509 | 1. The students are aware of current trends in power systems.
2. They are able to present their views with power point presentations.
3. They feel encouraged to take up further research in new and emerging fields.
4. They can share their knowledge within their group and with their peers.
 |
| Pre Thesis Project | MTPEE – 510 | 1. Students show application of the knowledge gained in formulating the project.
2. They show ability to work in teams.
3. They are able to use their knowledge for trouble shooting.
4. The students can realize their ideas by giving them practical shape.
 |
| Thesis | MTPEE – 511 | 1. The students feel encouraged to take up research problem.
2. They are able to contact the engineering fraternity.
3. They can use heir knowledge for finding solutions to problems in emerging areas.
4. They are able to present their ideas in written form and feel encouraged to present technical papers.
 |
| Research Methodology | MTPEE – 601 | 1. The students are aware of the importance of research.
2. They are clear about various stages an types of research.
3. They can apply the mathematical techniques for analysis.
4. They feel confident of finding solutions to contemporary problems
 |
| Advanced Power Electronics | MTPEE – 602 | 1. An ability to observe the industrial applications of various converters and power switches and to meet power supply specification.
2. Outlines the phenomenon of utility of the basic concepts of electrical and magnetic circuits for the formulation of various practical power electronics devices and elaborating their heat transfer capabilities.
3. Demonstration of knowledge gained for evaluating job related problems and developing lifelong learning.
4. Graduates will have an ability to understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the need and development for protection circuits.
 |
| Digital Control System | MTPEE – 603 | 1. Students are able to appreciate the importance of digital control systems.
2. Students can use various criteria to predict the stability of non linear digital control systems.
3. Students can model digital control systems.
4. Students can apply state variable technique for solving digital control problems.
 |
| Energy Efficient Machines | MTPEE – 604 | 1. Students can appreciate the importance of energy efficient machines.
2. Students can demonstrate the importance of power factor and techniques for its improvement.
3. Students can apply knowledge of drives for achieving energy efficiency.
4. Students can evaluate payback period after taking energy conservation measures.
 |
| Power System Planning | MTPEE – 605 | 1. Students can predict load using load forecasting techniques for short and long term.
2. They can suggest means for optimal unit commitment.
3. They show ability to plan design of transmission line.
4. They can use automation for distribution system planning.
 |
| Power Systems Stability | MTPEE – 606 | 1. Students can apply knowledge to study the transients for two machine and multi- machine systems.
2. They are able to analyze the steady state stability of two machine system & multi machine system.
3. They can analyze the transient stability of two machine & multimachine system.
4. They can suggest measures to improve stability of power system.
 |
| Advanced Electrical Drives | MTPEE – 607 | 1. Students can appreciate the importance of drives.
2. Students demonstrate the application of d.c and induction motor drives for various applications.
3. Students are able to appreciate the advantages of using VFD drives in industrial applications.
4. Students can perform the steady state and transient analysis of drives.
 |
| Microprocessors & theirapplications | MTPEE – 608 | 1. Students can appreciate the difference between 8085 and 8086 microprocessor.
2. Students can use peripheral interfacing for the projects.
3. Students are aware of microprocessor based relays and their application.
4. Students can use microprocessors for measurement of various quantities.
 |
| Industrial Instrumentation and Process Control | MTPEE – 609 | 1. Students can use knowledge of transducer to suggest transducer for a particular application.
2. Students can use transducer for measurement of various non electrical quantities.
3. They are aware of various process control techniques.
4. They can apply the process control techniques to industrial processes.
 |
| Power System Transients | MTPEE – 610 | 1. The students know about the origin and cause of transients.
2. They are aware of lightening and its mechanism.
3. They have the knowledge of switching surges.
4. They are able to appreciate the importance of insulation coordination in power systems.
 |
| Operation and Modeling of Restructured Power System | MTPEE – 611 | 1. Students know about restructured power system and its hierarchy.
2. The can model the power system keeping in line the restructuring.
3. They are aware of transmission line congestion problem and its solution.
4. They can predict the transmission capacity for a particular system.
 |
| Power System Reliability | MTPEE – 612 | 1. Students demonstrate the knowledge of Markov criteria for reliability calculations.
2. They are able to evaluate the static generating capacity reliability.
3. They are able to evaluate the transmission system reliability.
4. They can predict composite system reliability.
 |
| Renewable Energy Resources | MTPEE – 613 | 1. The students can appreciate the importance of renewable energy resources.
2. They are able to suggest technologies to harness renewable energy resources.
3. They are able to do research in this area.
4. They can apply the knowledge of the subject for project and dissertation.
 |
| Reliability Engineering | MTPEE – 614 | 1. The students can predict the downtime for a plant.
2. They can predict the reliability of the plant.
3. The can apply knowledge of reliability index to prepare contingency plan.
4. They can do research work in this area.
 |
| Optimization Techniques | MTPEE – 615 | 1. Students demonstrate the application of various optimization techniques.
2. Students can apply optimization techniques for power system problems.
3. Students can use subject knowledge for their thesis work.
4. They can compare various optimization techniques.
 |
| Neural Networks & Fuzzy Logic | MTPEE – 616 | 1. The students know the importance of neural networks and fuzzy logic.
2. They are able to apply fuzzification techniques to power system problems.
3. The can apply neural networks for their thesis work.
4. Application of knowledge of fuzzy logic control in various fields.
 |
| Economics and Organization of Power Sector | MTPEE – 617 | 1. Students are aware of financial aspects in power sector.
2. They can calculate depreciation, pay back period.
3. They are aware of the organization of utilities.
4. They are knowledgeable about fund flow in power sector.
 |

**THE STRUCTURE OF CURRICULUM WHICH HELPS FOR THE ATTAINMENT OF THE POs AND THE PEOs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Course Name** | **Course Code** | **PEO 1**Provide graduates with an outstanding education and research skills and knowledge to further their career aspirations. | **PEO 2**Prepare students to excel in post graduate programs to succeed in industry, technical profession through rigorous education. | **PEO 3**Prepare graduates for Ph.D. programs. | **PEO 4**Inculcate in students professional and ethical attitude, effective communication skills, teamwork skills, managerial skills, multidisciplinary approach and an ability to relate engineering issues to broader social context. |
| **Attained PO** | **Attained PO** | **Attained PO** | **Attained PO** |
| **PO 1** | **PO 4** | **PO 2** | **PO 3** | **PO 3** | **PO 5** | **PO 2** | **PO 6** |
| 1. | Advanced Power System Analysis | MTPEE – 501 | √ | √ | √ | -- |
| 2. | Power System Operation and Control | MTPEE – 502 | √ | √ | √ | -- |
| 3. | Advanced Electrical Machines | MTPEE – 503 | √ | √ | √ | -- |
| 4. | HVDC Transmission | MTPEE – 504 | √ | √ | √ | -- |
| 5. | Power System Protection | MTPEE – 505 | √ | √ | √ | -- |
| 6. | EHVAC Transmission | MTPEE – 506 | √ | √ | √ | -- |
| 7. | Power System Software Lab | MTPEE – 507 | √ | √ | √ | √ |
| 8. | Industrial Automation Lab | MTPEE – 508 | √ | √ | √ | √ |
| 9. | Pre Thesis Seminar | MTPEE – 509 | √ | -- | √ | √ |
| 10. | Pre Thesis Project | MTPEE – 510 | -- | √ | √ | √ |
| 11. | Thesis | MTPEE – 511 | √ | √ | √ | √ |
| 12. | Research Methodology | MTPEE – 601 | √ | √ | √ | √ |
| 13. | Advanced Power Electronics | MTPEE – 602 | √ | √ | √ | -- |
| 14. | Digital Control System | MTPEE – 603 | √ | √ | √ | -- |
| 15. | Energy Efficient Machines | MTPEE – 604 | √ | √ | √ | -- |
| 16. | Power System Planning | MTPEE – 605 | √ | √ | √ | √ |
| 17. | Power Systems Stability | MTPEE – 606 | √ | √ | √ | -- |
| 18. | Advanced Electrical Drives | MTPEE – 607 | √ | √ | √ | -- |
| 19. | Microprocessor & theirapplications | MTPEE – 608 | √ | √ | √ | √ |
| 20. | Industrial Instrumentation and Process Control | MTPEE – 609 | √ | √ | √ | √ |
| 21. | Power System Transients | MTPEE – 610 | √ | √ | √ | -- |
| 22. | Operation and Modeling of Restructured Power System | MTPEE – 611 | √ | √ | √ | -- |
| 23. | Power System Reliability | MTPEE – 612 | √ | √ | √ | -- |
| 24. | Renewable Energy Resources | MTPEE – 613 | √ | √ | √ | √ |
| 25. | Reliability Engineering | MTPEE – 614 | √ | √ | √ | -- |
| 26. | Optimization Techniques | MTPEE – 615 | √ | √ | √ | √ |
| 27. | Neural Networks & Fuzzy Logic | MTPEE – 616 | √ | √ | √ | -- |
| 28. | Economics and Organization of Power Sector | MTPEE – 617 | √ | √ | √ | √ |

**THE MAJOR STAKEHOLDERS OF PROGRAM**

* Student
* Faculty
* Alumni
* Employer (Industry)
* Parents

**Student**

* Most prominent role in the program.
* Student’s feedback is considered to introduce innovative teaching and learning methodologies.
* Students input help in program to introduce the elective courses to meet current trends.

**Faculty**

* Involve a vital role in working of the program.
* Faculty involves in various committees to check the consistency of the program.
* Faculty provides inputs for designing the program, PEOs/POs establishment, course objectives and assessment.
* Faculty analysis and review form is used to identify and implement necessary actions.

**Alumni**

* Focus group because they are a measure of the long-term success of our program.
* Alumni feedback helps in curriculum design to meet recent trends in engineering.
* Alumni recollect their existence during their program of study and advise the department with necessary inputs in point of student career.

**Employer**

* Represents the major end users of our graduates.
* Give higher focus to the program on future data to create awareness with current industry.
* Give inputs which overcome the gap between program and industry.

**Parents**

* Expects their wards in good professional career and higher education.
* Occasionally meetings with parents are done and feedback about the various activities of the department is obtained.
* Parents are also part of various committees of the department.

**FACULTY PROFILE**

|  |  |  |
| --- | --- | --- |
| **Faculty Name** | **Designation**  | **Specialization**  |
| Dr.Y.S. Brar Pf.Jaswinder Singh Pf.Khushdeep Singh Pf.Preetinder Singh Pf.Rupinderjit Singh Dr.Kanwardeep Singh Pf.Harminder Singh Pf.Gagandeep Singh Sodhi Dr. Navneet Singh Bhangu Pf.Harmeet Singh Gill Pf.Arvind Dhingra Pf.Ravinder Kaur Pf. Shivani Arora Pf. Tarandeep Kaur Gill Pf.Samreet Kaur Gosal Pf. Neha Kaushal Pf. Baljeet Singh Pf. Sonia Grover  | Professor Associate Professor & Head Associate professor Associate Professor Associate Professor Associate Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant Professor Assistant ProfessorAssistant Professor | Power Systems Control Systems Power System Protection Electrical Machines Non Conventional Energy Power System Power Electronics Applied Electronics Power System Reliability Power Electronics Energy Audit, Power SystemsElectrical Measurements Power Electronics Power Systems Control SystemsPower Systems Power Systems Power Systems  |
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