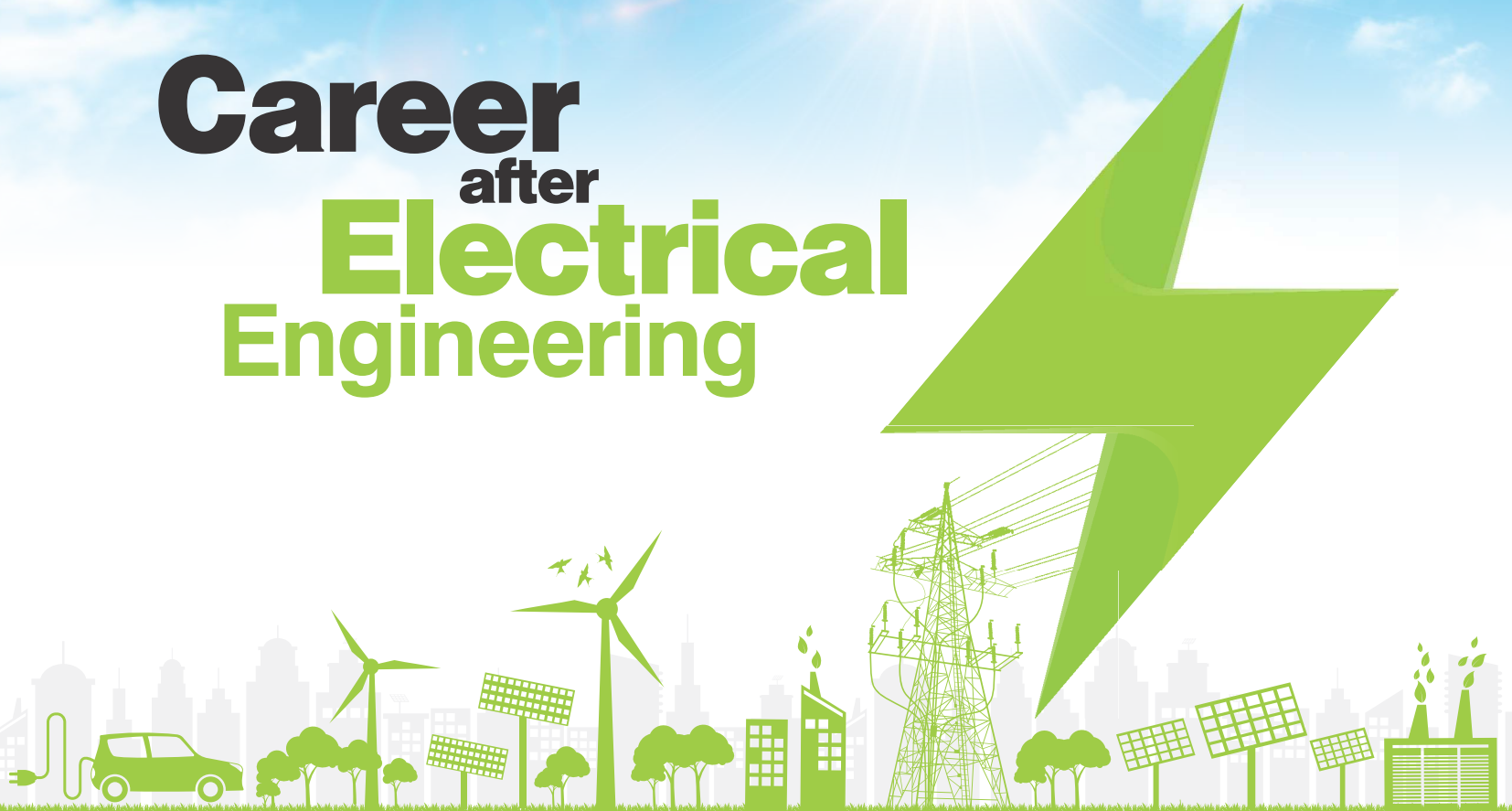


Career after Electrical Engineering



Scope after B.E.\ B.Tech.



Paste
Your
Photo

Set Your Goal



Government Job

- Central Government
- Public Sector Units (PSUs)
- State Government



Private Job

- MNCs
- SMEs and MSMEs



Business

- Electrical Contractor
- Electrical Consultant
- Electrical Goods Manufacturer
- Electrical Goods Trader









Higher Studies

- M.E. / M.Tech.
- Job Oriented Courses
- Software Courses

Central Government Job

• Post: Junior Engineer / Senior Section Engineer / Graduate Engineer Trainee







 Main Recruiters	BSNL, ISRO, BARC, RRB, DRDO, BEL, etc.
 Minimum Qualification	Diploma / B.E. / B.Tech (Electrical)
 Selection Process	Written Test + Personal Interview
 Syllabus	As per Job Notification
 Salary	Approximately Rs. 40,000 - 1,40,000 per Month*
 For more details	www.employmentnews.gov.in or explore respective company website

*Subject to change as per government norms



Central Government Job (Contd...)







● Post: Assistant Electrical Engineer through Indian Engineering Services (IES)

 Main Recruiters	<ul style="list-style-type: none">• Indian Ordnance Factories Service,• Indian Defense Service of Engineers,• Defense Aeronautical Quality Assurance Service/SSO-II• Central Power Engineering Service Gr 'A' & 'B'• Indian Skill Development Service• Indian Naval Armament Service• Asst. Naval Store Officer Grade-I in Indian Navy• Indian Railway Service of Electrical Engineers• Indian Railway Stores Service
 Minimum Qualification	B.E. / B.Tech (Electrical)
 Selection Process	Written Test (Paper 1 + Paper 2) + Interview
 Syllabus	As per Job Notification
 Salary	Approximately Rs. 45,400 - 1,01,200 per month*
 For more details	https://upsc.gov.in

*Subject to change as per government norms

Central Government Job (Contd...)

- **Post: Junior Engineer, Assistant Engineer, Additional Assistant Engineer, Chief Estimator, Draughtsman, Technical Officer through Staff Selection Commission (SSC)**







 Main Recruiters	CPWD, Central Water Commission, India Post, MES, etc.
 Minimum Qualification	Diploma / B.E. / B.Tech (Electrical)
 Selection Process	Written Test + Personal interview
 Syllabus	<ul style="list-style-type: none">• Paper-1: Objective -General Intelligence & Reasoning, General Awareness, General Engineering (Electrical)• Paper-2: Conventional - General Engineering (Electrical)
 Salary	Approximately Rs. 45,400 - 1,01,200 per month*
 For more details	<ul style="list-style-type: none">• www.cpwd.gov.in, www.cwc.gov.in, www.indiapost.gov.in, www.mes.gov.in or explore respective company website

*Subject to change as per government norms



PSU Job

- **Post: Graduate Engineer Trainee, Management Trainee, Junior Executive, Assistant Engineer**

 Main Recruiters	POWER GRID, BHEL, NTPC, NHPC, IFFCO, KRIBHCO, ONGC, IOCL, BPCL, HPCL, GAIL, NHAI, AAI, etc.
 Minimum Qualification	B.E. / B.Tech or M.E. / M.Tech. (Electrical), GATE Qualified
 Selection Process	Written Test + Group Discussion + Personal Interview
 Syllabus	As per GATE Syllabus
 Salary	Approximately Rs. 45,400 - 1,01,200 per month*
 For more details	Explore respective company website

* Subject to change as per government norms

PSU Job (Contd...)

Airports Authority of India **(AAI)**

Bharat Earth Movers Ltd. **(BEML)**

Bharat Heavy Electricals Ltd. **(BHEL)**

Central Electronics Ltd. **(CEL)**

Delhi Metro Rail Corporation Ltd. **(DMRC)**

Gas Authority of India Ltd. **(GAIL)**

Hindustan Aeronautics Ltd. **(HAL)**

Hindustan Petroleum Corporation Ltd. **(HPCL)**

Indian Oil Corporation Ltd. **(IOCL)**

Indian Railway Construction Company Ltd. **(IRCON)**

Mazagon Dock Shipbuilders Ltd. **(MDL)**

National Aluminium Company Ltd. **(NALCO)**

National Fertilizers Ltd. **(NFL)**

National Hydroelectric Power Corp. Ltd. **(NHPC)**

National Thermal Power Corp. **(NTPC)**

NLC India Ltd. **(NLC)**

Nuclear Power Corporation of India Ltd. **(NPCIL)**

Oil and Natural Gas Corporation Ltd. **(ONGC)**

Power Grid Corporation of India Ltd. **(PGCIL)**

Rail India Technical and Economic Service **(RITES)**

Steel Authority of India Ltd. **(SAIL)**

Tehri Hydro Development Corp. India Ltd. **(THDC)**

Vizag Steel

& many more...



PSU Job Opening through GATE -19

Sr.	Company	Sector	Status	Age Limit (In Years)	No. of Post	Cut-off Mark GATE-2018
1	AAI	Civil Aviation	Miniratna	27	100	75.67
2	BARC	Dept. of Atomic Energy	Govt. of India	26	---	73.67
3	BBNL	Communication & IT	Govt. of India	27	---	65.02
4	BEML	Defence	Miniratna	27	---	
5	BHEL	Engineering & Mfg.	Navratana	27	20	69.98
6	BSNL	Communication & IT	Govt. of India	30	100	
7	CEL	Dept. of Scientific & Ind. Research	Navratana	27	15	
8	DRDO	Defence	Govt. of India	28	10	
9	GAIL	Petroleum & Natural Gas	Maharatna	28	---	77.95
10	HAL	Defence	Navratana	28	100	
11	HPCL	Petroleum & Natural Gas	Navratana	25	---	67.35
12	IOCL	Petroleum & Natural Gas	Maharatna	26	---	53.99
13	ONGC	Dep. Of Space	Govt. of India	35	5	

--- to be announced

Age limit and Cut-off mark of General Category






Sr.	Company	Sector	Status	Age Limit (In Years)	No. of Post	Cut-off Mark GATE-2018
14	MDL	Defence	Miniratna	28	4	65.05
15	NALCO	Mining	Navratana	30	32	
16	NHPC	Power	Miniratna	30	50	72.6
17	NLC	Power	Navratana	30	---	71.62
18	NPCIL	Power	Govt. of India	26	45	819
19	NTPC	Power	Maharatna	27	47	66.69
20	ONGC	Petroleum & Natural Gas	Maharatna	30	95	869
21	PGCIL	Power	Navratana	28	33	64.72
22	ITES	Infrastructure	Miniratna	30	2	
23	SAIL	Steel & Iron	Maharatna	28	88	73.72
24	THDC	Power	Miniratna	30	15	
25	Vizag Steel	Steel & Iron	Navratana	27	20	74.67

--- to be announced

Age limit and Cut-off mark of General Category

State Government Job

• Post: Vidyut Sahayak (Junior Engineer), Vidyut Sahayak (Junior Assistant)

 Main Recruiters	Generation (GSECL), Transmission (GETCO), Distribution (PGVCL, MGVCL, UGVCL, DGVCL)
 Minimum Qualification	B.E. / B.Tech (Electrical)
 Selection Process	Written Test
 Syllabus	General Knowledge (10%), English Language (10%), Electrical Engineering (60%), Computer Knowledge (10%), Gujarati Language & Grammar (10%)
 Salary	Approximately Rs. 45,400 - 1,01,200 per month (for Junior Engineer) * Approximately Rs. 25,000 - 55,800 per month (for Junior Assistant)*









For more details

• www.pgvcl.com, www.mgvcl.com, www.getcogujarat.com, www.gsecl.in,
<https://ojas.gujarat.gov.in>

*Subject to change as per government norms

State Government Job (Contd...)

- **Post: Junior Engineer, Assistant Engineer, Additional Assistant Engineer**







 Main Recruiters	Urja & Petrochemical Department, R&B, Irrigation Dept., GWSSB
 Minimum Qualification	B.E. / B.Tech (Electrical)
 Selection Process	Written Test + Personal interview
 Syllabus	<ul style="list-style-type: none">• Paper-1: (Technical, Electrical Engineering)• Paper-2: (Non-technical, General Knowledge, Basic Computer Knowledge and Aptitude & Reasoning)
 Salary	Approximately Rs. 45,400 - 1,01,200 per month*
 For more details	• https://gpsc-ojas.gujarat.gov.in , https://gpsc.gujarat.gov.in

*Subject to change as per government norms



State PSUs

- **Post: Executive-Technical, Junior Program Officer, Junior Engineer, Additional Assistant Engineer, Assistant Engineer, Trainee Officer, Supervisor-Electrical, Deputy Engineer**

 Main Recruiters	GERC, GEDA, GNFC, GSFC, GACL, GHCL, GIDC, GPCL, GMB, GMDC, GCPTCL, GIPCL, SSNNL, GSRTC, etc.
 Minimum Qualification	B.E. / B.Tech (Electrical)
 Selection Process	Written Test / Personal Interview
 Syllabus	General Knowledge, English Language, Electrical Engineering, Basic Computer Knowledge, Aptitude & Reasoning, Gujarati Language Grammar. *
 Salary	Approximately Rs. 45,400 - 1,01,200 per month*
 For more details	https://ojas.gujarat.gov.in or explore respective company website







*Subject to change as per government norms

State PSUs

GERC	Gujarat Electricity Regulatory Commission	www.gercin.org
GEDA	Gujarat Energy Development Agency	www.geda.gujarat.gov.in
GNFC	Gujarat Narmada Valley Fertilizers & Chemicals	www.gnfc.in
GSFC	Gujarat State Fertilizers & Chemicals Limited	www.gsfclimited.com
GACL	Gujarat Alkalis and Chemicals Limited	www.gacl.com
GCPTCL	Gujarat Chemical Port Terminal Company Limited	www.gcptcl.com
GHCL	Gujarat Heavy Chemicals Limited	www.ghcl.co.in
GIDC	Gujarat Industrial Development Corporation	www.gidc.gujarat.gov.in
GMDC	Gujarat Mineral Development Corporation Limited	www.gmdcltd.com
GIPCL	Gujarat Industries Power Company Limited	www.gipcl.com
SSNNL	Sardar Sarovar Narmada Nigam Limited	www.sardarsarovardam.org
GSRTC	Gujarat State Road Transport Corporation	www.gsrtc.in
GPCL	Gujarat Power Corporation Limited	www.gpcl.gujarat.gov.in
GMB	Gujarat Maritime Board	www.gmbports.org
GHB	Gujarat Housing Board	www.gujarathousingboard.org
GSRDC	Gujarat State Road Development Corporation Limited	www.gsrdc.com

Local Authority Body







- **Post: Junior Engineer, Assistant Engineer, Additional Assistant Engineer in Municipal Corporations & Nagar Palikas**

 Main Recruiters	RMC, AMC, SMC, VMC, JMC, GMC etc.
 Minimum Qualification	B.E. / B.Tech (Electrical)
 Selection Process	Written Test / Personal Interview
 Syllabus	General Knowledge, English Language, Electrical Engineering, Basic Computer Knowledge, Aptitude & Reasoning, Gujarati Language Grammar.*
 Salary	Approximately Rs. 45,400 - 1,01,200 per month*
 For more details	https://ojas.gujarat.gov.in or explore respective company website

*Subject to change as per government norms

State Government Job (Academy)







- **Post: Assistant Professor (Degree Engineering College), Lecturer (Diploma Engineering College) through Gujarat Public Service Commission (GPSC)**

 Main Recruiters	Government Engineering Colleges and Government Polytechnics
 Minimum Qualification	M.E. / M.Tech (Electrical) (for Degree Engineering College), B.E. / B.Tech (Electrical) (for Diploma Engineering College)
 Selection Process	Written Test + Personal Interview
 Syllabus	<ul style="list-style-type: none">• Paper-1: Technical• Paper-2: GK, Computer and Reasoning
 Salary	Approximately Rs. 44,900 - 1,42,400 per month*
 For more details	<ul style="list-style-type: none">• https://gpsc-ojas.gujarat.gov.in, https://gpsc.gujarat.gov.in

*Subject to change as per government norms

State Government Job (Academy) (Contd...)







• Post: Supervisor, Instructor in Industrial Training Institute (ITI)

 Main Recruiters	ITI in Gujarat State
 Minimum Qualification	Diploma / B.E. / B.Tech (Electrical)
 Selection Process	Written Test
 Syllabus	<ul style="list-style-type: none">• Paper-1: Technical, Workshop Calculation• Paper-2: Employability Skill, Basic Computer
 Salary	Approximately Rs. 15,600 - 60,600 per Month*
 For more details	https://ojas.gujarat.gov.in

*Subject to change as per government norms

MNC Job







● Post: Graduate Engineer Trainee - Electrical

 Main Recruiters	ABB, Siemens, General Electric, L&T Power & ECC, Havells, Crompton Greaves, Bajaj Electricals, Kirloskar, Suzlon Energy, Westas India, Tata Power, Tata Consultancy Engineers, Reliance Industries, Essar Power & Oil, Adani Power, Torrent Power, Aditya Birla Group of Companies, Fanuc, Godrej, etc.
 Minimum Qualification	B.E. / B.Tech or M.E. / M.Tech. (Electrical), GATE Qualified (Additional Qualification)
 Selection Process	Written Test + Group Discussion + Personal Interview
 Syllabus	Course of B.E. (Electrical), General Knowledge, Aptitude, English Comm.
 Salary	Approximately Rs. 25,000 to 70,000 per Month*
 For more details	Explore respective company website

* Subject to change as per MNC norms

SMEs / MSMEs Job

• **Post: Junior Engineer & Graduate Engineer Trainee - Electrical**

 Main Recruiters	Nirma Chemicals, Ultracab, Wellspun, Genus Electrotech, Hi-bond group of companies, Jyoti CNC, Hi-Tech Electrical, JJPV Solar, Lubi Electronics, Silver Motors Amtech Electronics, Voltamp Transformer, Electrotherm, HPL Gujarat, Ambit Energy, Falcon Pump, Shashwat Cleantech, etc.
 Minimum Qualification	Diploma / B.E. / B.Tech (Electrical)
 Selection Process	Written Test / Personal interview / Skill based test
 Syllabus	Course of Diploma / B.E. (Electrical), General Knowledge, Aptitude, English Communication
 Salary	Approximately Rs. 8,000 to 25,000 per Month*
 For more details	Explore respective company website





* Subject to change as per company requirements

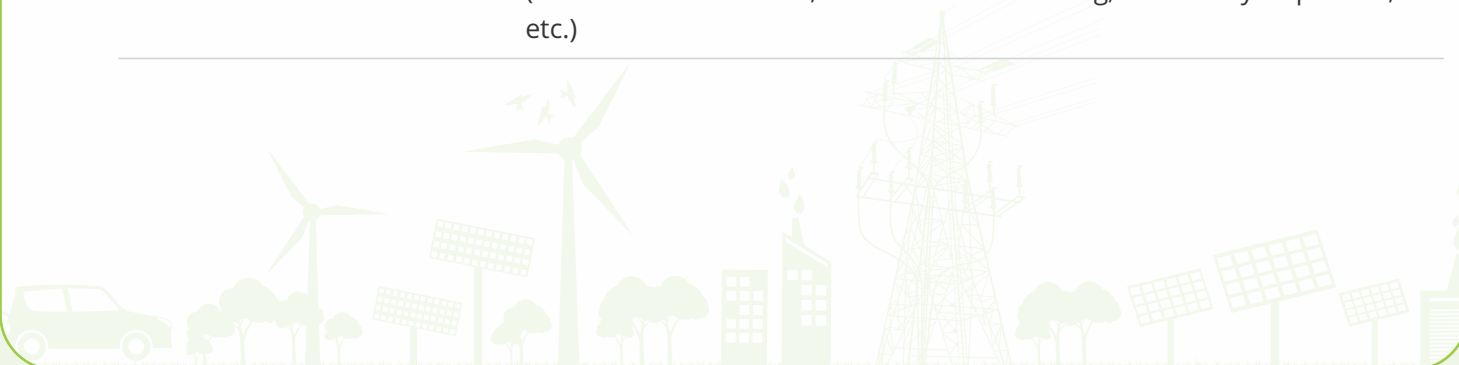
Jobwise Skill Required

Job Category	Required Skill Set
Industrial Automation & Substation Automation	PLC, SCADA, DCS, Electrical Engineering Basics, Communication protocols like IEC 104, IEC 61850, Modbus, DNP3
Power System Analysis	Fault Analysis, Electrical Network Analysis, Power Flow Basics, Electrical Engineering Basics
Microchip Design	Advanced Electrical Engineering, Embedded, VLSI
Equipment Manufacturing	Home Electrical Appliances, Electrical Engineering Basics
Power System Equipment Manufacturing	Drives, Relay, Meter, Transformer, Breaker, Generator, Electrical Engineering Basics
Plant Operation & Maintenance	Electrical Engineering Basics
R & D Careers	Optimization, ANN, FANN, Advanced Electrical Engineering
Solar EPC	Electrical Engineering Basics, Solar PV System Basics, Solar Design & Simulation Software

Business

• Electrical Contractor

 Minimum Qualification	Diploma / B.E. / B.Tech (Electrical) with Electrical Supervisor and Electrical Contractor License
 Prerequisite	Electrical Supervisor work in respective field
 Registration	Registered firm with respective Government Department
 Scope	Contractual work in DISCOMs, R&B, Municipal Corporations, Nagar Palikas, Panchayats, Indian Railway, Airport, O&M of Solar and Wind Plants, MNCs, MSMEs, Banks and other state Government Departments (Electrical Maintenance, Government Liaisoning, Third Party Inspection, etc.)



Business (Contd...)

• Electrical Consultant



Minimum Qualification

Diploma / B.E. / B.Tech / M.E. / M.Tech. (Electrical)

Additional Qualifications:

Electrical Wireman / Electrical Supervisor / Electrical Contractor / Chartered Engineer / Energy Auditor / Surveyor & Loss Assessor / Member or Empaneled with Professional Technical bodies (e.g. IEI, IIF, MNRE, GEDA, BEE, PCRA, Engineering Association)



Prerequisite

Knowledge of Tariff, Awareness of documents and procedures related to electrical and industrial work, Command on Electrical design software



Registration

Registered firm with respective Government Department



Scope

Consultants in DISCOMs, SDA, R&B, Municipal Corporations, Nagar Palikas, Panchayats, Indian Railway, Airport, O&M of Solar and Wind Plants, MNCs, MSMEs, Banks and other state Government Departments (Electrical Design, Energy Audit, Electrical Maintenance, Export & Import, Electricity Duty Waiver, Electricity Supply Connections, Electricity Billing Rebates, Government Liaisoning, Third Party Inspection, Valuer, Surveyor, Loss Assessor, etc.)

Business (Contd...)

• Electrical Goods Manufacturer



Minimum Qualification

It does not require any qualification but Degree / Diploma in Electrical Engineering helps lot for further expansion



Prerequisite

Expertise in electrical work of respective field



Registration

Registered firm with respective Government Departments



Scope

Manufacturing of Electrical Panels, Electrical Motors, Cables and Wires, Solar Panels, Transformers, Switchgears, Lighting Products, Industrial Fans, Inverters & Electrical Drives, Household Appliances



Business (Contd...)

• Electrical Goods Trader



Minimum Qualification

It does not require any qualification but Degree / Diploma in Electrical Engineering helps lot for further expansion



Prerequisite

Trading and Marketing Skill



Registration

Registered firm with respective Government Department








Scope

Lighting Products, Electrical Fans, Household Appliances, Electrical Motors, Pumps, Transformers, Wires and Cables, Electrical Switchgears, Generator Sets and other Electrical Goods



Higher Study

• M.E. / M.Tech. / Ph.D. @ IITs, NITs and Universities of Gujarat

 Minimum Qualification	B.E. / B.Tech. (Electrical), GATE Qualified (for IITs & NITs), PGCET (for Colleges of Gujarat)
 Admission Process	<ul style="list-style-type: none">• UG Qualification + GATE Qualification + Personal Interview (for IITs & NITs)*,• UG Qualification + GATE Qualification or Entrance Exam Qualification (for Colleges of Gujarat)*
 Syllabus	GATE Syllabus / PGCET Syllabus
 Scope	Teaching in Academic Institutes or research in R&D Organizations
 Specialization	Power System, Power Electronics, Electrical Machines & Drives, Control System, Energy System, Automation, Embedded System, Renewable Energy, Aerospace

*Subject to change as per university norms

GATE Exam Pattern

Section	Question No.	No. of Questions	Marks Per Question	Total Marks
General Aptitude	1 to 5	5	1	5
	6 to 10	5	2	10
Technical + Engineering Mathematics	1 to 25	25	1	25
	26 to 55	30	2	60

Total Questions : 65	Total Marks : 100	Total Questions : 65
Technical Section : 70 marks	General Aptitude: 15 marks	Engineering Mathematics : 15 marks

Types of Question	Marks	Negative Marks
Multiple Choice Question (MCQ)	1 Mark	0.33
	2 Mark	0.66
Numerical Answer Question	1 Mark	Nil
	2 Mark	Nil

Job Oriented Courses

• Power System Related Course at National Power Training Institute (NPTI)

Course	Duration	Topic
Post Graduate Diploma Course (PGDC)	52 Weeks	Thermal Power Plant, Hydro Power Plant, Transmission & Distribution System, New & Renewable Energy, HT/LT Switchgear & many more.
Long-term Courses	17 Weeks & Above	
Medium-term Courses	5 to 16 Weeks	
Short-term Courses	1 Day to 4 Weeks	



Minimum Qualification

Diploma/ B.E./ B.Tech./ M.E./ M.Tech.(Electrical)



Institute Location

Northern Region: Faridabad, Badarpur, Nangal
Southern Region: Bengaluru, Neyveli
Eastern & North Eastern Region: Durgapur, Guwahati
Western Region: Nagpur



For more details

www.npti.in

Software Courses

Transformer Design and Analysis

- Maxwell
- JMAG
- Prolific
- FEA

PCB Design and Simulation

- PCB Maker
- PCB Designer
- Eagle
- TinyCAD
- Express PCB

Microcontroller Programming and Simulation

- Keil
- TinyCAD
- ARDUINO

Motor Design and Analysis

- ANSYS
- MagNet
- Speed
- NISA
- Opera
- Motorsolve

Earthing Design and Simulation

- Earth MAT
- Earth Grid Pro
- SES
- Safe Grid
- Ground Grid

Solar System Design and Simulation

- PV Syst
- PV F-Chart
- pv Planner
- RETscreen
- Homer
- AutoCAD

Power Electronics Circuit Simulation

- MATLAB
- Circuit Maker
- PSim
- MultiSim
- PSCAD
- Model SIM
- PSpice

Automation Simulation (PLC Software)

- ISPSOft
- CODESYS
- autoSIM-200
- Automation Studio
- SIMATIC STEP 7(Siemens)
- RS MicroLogix 500/5000

Power System Simulation

- MATLAB
- MiPower
- LabVIEW
- Power World Simulator
- Engineering Power Tools



योग: कर्मसु कोशलम्

📍 Rajkot-Morbi Highway, Rajkot

☎ 9727747318 ✉ electrical@darshan.ac.in

📞 9429050495 🌐 www.darshan.ac.in

