

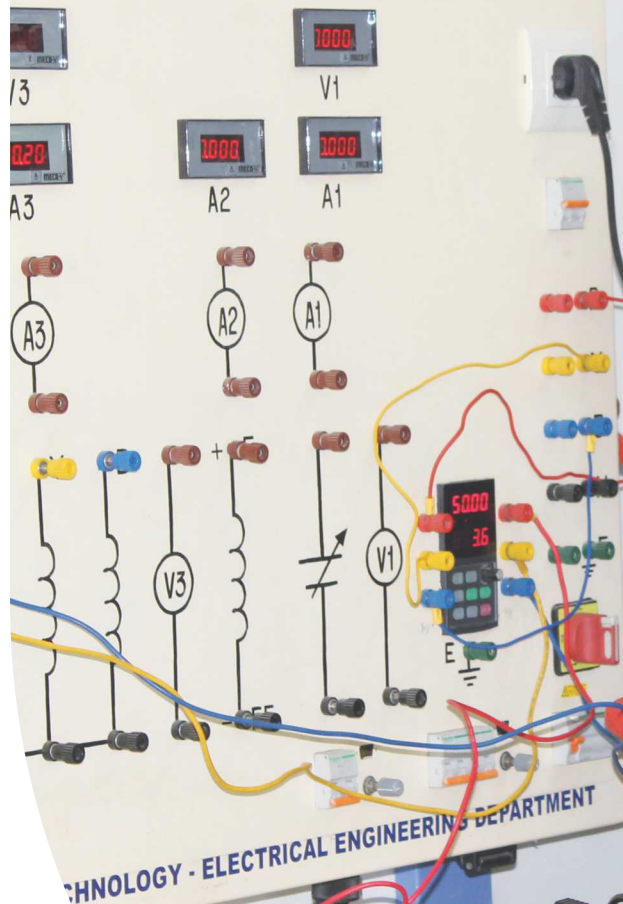


योग: कर्मसु कौशलम्

Darshan
UNIVERSITY

B.Tech.
ELECTRICAL ENGINEERING

OTOR - 3Ø ALTERNATOR



A
technical
under-graduate
program
that focuses on
Industry-oriented education
to broaden the **technical dimension**

B.Tech. Electrical Engineering

Electrical Engineering Department (EED), at University is involved in providing quality education at both Postgraduate and Undergraduate levels. Department aims to produce engineers who are critical, original, and independent thinkers along with the strong foundation in contemporary electrical engineering, basic sciences, mathematics, computing, and communication. Department also believes in values, attitudes, diversity of opinion, ethics and vision that will prepare student for lifetimes of success, continued learning and leadership in their chosen careers.

Association and Affiliations

The department associates and affiliates with other academic institutes of repute, government organizations and industries to achieve overall objectives of the Department. Few of these are



The department has received grant of Rs. 35,50,000/- from various government organizations on different projects.

Government of India Approvals

Accredited
Energy Auditor/Manager
BEE, Ministry of Power

Training Partner
NISE, Ministry of New
and Renewable Energy

Training Partner
SCGJ, National Skill
Development Corporation

Government of Gujarat Approvals

Energy Audit Consultant,
GEDA

Energy Auditor

Electrical Contractor

B.Tech. in Electrical Engineering @ Darshan University

- Highly Qualified, Well Experienced, Industry Linked & Dedicated Faculties.
- A strong theoretical foundation for crystal clear fundamentals.
- Focus on project-based learning with applications of technologies in real life.
- Industrial exposure through Consultancy Services offered by department.
- Skill Development Activities every semester to make students industry ready.
- Earn While You Learn program transforms a student into an entrepreneur.

Best Practices @ the Department

- Holistic approach to education which supports students to develop themselves as fully integrated individuals.
- Decentralized and participatory style of functioning to develop belongingness and sense of responsibility.
- Open and unrestricted support of infrastructure in terms of Laboratories, Training and Learning Centers, Department Library, etc.
- Semester-wise well designed set of value added training programs along with regular curriculum that helps students to better meet current job demands.
- Regular interaction with industries, industry personals, field experts, entrepreneurs, etc. to expose students to latest technologies, opportunities and field trends.
- Encourage students to involve in or independently take up industrial projects as well as participate in various national and international competitions.

Key Faculties



Anil Kansagara

- 🎓 M. E. (Electrical)
- 🕒 15 Years Experience
- ✉ anil.kansagara@darshan.ac.in
- 📞 9687522202
- 👍 Motor & Pump Testing, High Voltage



Bhavin Kanani

- 🎓 Ph.D. (Pursuing), M. Tech. (PAS)
- 🕒 14 Years Experience
- ✉ bhavin.kanani@darshan.ac.in
- 📞 9724849097
- 👍 Energy Conservation, Power Quality



Bhavesh Dave

- 🎓 M. E. (PEED)
- 🕒 12 Years Experience
- ✉ bhavesh.dave@darshan.ac.in
- 📞 9427416578
- 👍 Electrical Machine, Solar PV



Hardik Lakhani

- 🎓 M. Tech. (Power Electronics)
- 🕒 11 Years Experience
- ✉ hardik.lakhani@darshan.ac.in
- 📞 9429050495
- 👍 Power Electronics, Embedded System



Pratik Patel

- 🎓 M.E. (Power System)
- 🕒 13 Years Experience
- ✉ pratik.patel@darshan.ac.in
- 📞 9712260060
- 👍 Electrical Machine, Power System



Harikrushan Patel

- 🎓 B.E.(Electrical)
- 🕒 12 Years Experience
- ✉ harikrushan.patel@darshan.ac.in
- 📞 9898709191
- 👍 Power Electronics, Renewable Energy



Nirmal Thumbar

- 🎓 B.E.(Electrical)
- 🕒 11 Years Experience
- ✉ nirmal.thumbar@darshan.ac.in
- 📞 9601060899
- 👍 Electric Traction & Control



Raj Mehta

- 🎓 M. Tech. (PED)
- 🕒 4 Years Experience
- ✉ raj.mehta@darshan.ac.in
- 📞 94292 45356
- 👍 Industrial Automation & EV

Syllabus

Semester-1

- Basics of Electrical Engineering
- Mathematics – I
- Engineering Drawing
- Environmental Studies
- Office Automation Tools
- Fundamentals of C Programming

Semester-2

- Basics of Electronics
- Science for Electrical Engineering
- Mathematics – II
- Basic of Mechanical Engineering
- Communicative English

Semester-3

- Advance Mathematics for Electrical Engg.
- Network Analysis and Synthesis
- Ele. Measurements & Measuring Instrument
- Analog and Digital Electronics
- Basic Electrical Power Generation Techniques
- Indian Constitution

Semester-4

- Electrical Machine-I
- Power System-I
- Power Electronics-I
- Industrial Electrical Systems
- Control System Engineering

Semester-5

- Electrical Machine-II
- Power System-II
- Power Electronics-II
- High Voltage Engineering
- Professional Elective – I
- Open Elective – I

Semester-6

- Electrical Drives
- AC Machine Design
- Engineering Economics
- Professional Elective-II
- Professional Elective-III
- Open Elective-II

Semester-7

- Testing and Commissioning of Electrical Equipments
- Interconnected Power System
- Electrical Switchgear and Protection
- Professional Elective-IV
- Professional Elective-V

Electives

- Energy Conservation and Audit, Solar & Wind Energy, HVDC, Power Quality & FACTS, Industrial Automation & Control, IoT, Advanced Machine Design, Advanced Power Electronics Design, Advanced Power System Design, Electric & Hybrid Vehicle, Smart Grid

Semester-8 Industrial Internship

Skill Development Activities

Sem.-3



MS Office



Measurement



Electrification



Circuit Simulation

Sem.-4



Load Calculation



Starter & Contactor



Arduino



Electricity Bill

Sem.-5



MATLAB



AutoCAD



Earthing



Power Converters

Sem.-6



Robotics



IoT



Solar System



FEA

Sem.-7



Energy Audit



PLC/SCADA



Motor/Pump Test



Switch Gear

Sem.-8



Mock Interview



Aptitude



Group Discussion



Soft Skills

Lab Facilities

The Department has state-of-the-art laboratories equipped with industrial grade instruments and experiment set-ups.



Basic Electrical Engineering Lab

Electrical Machine Lab

High Voltage Lab

Power System & Protection Lab

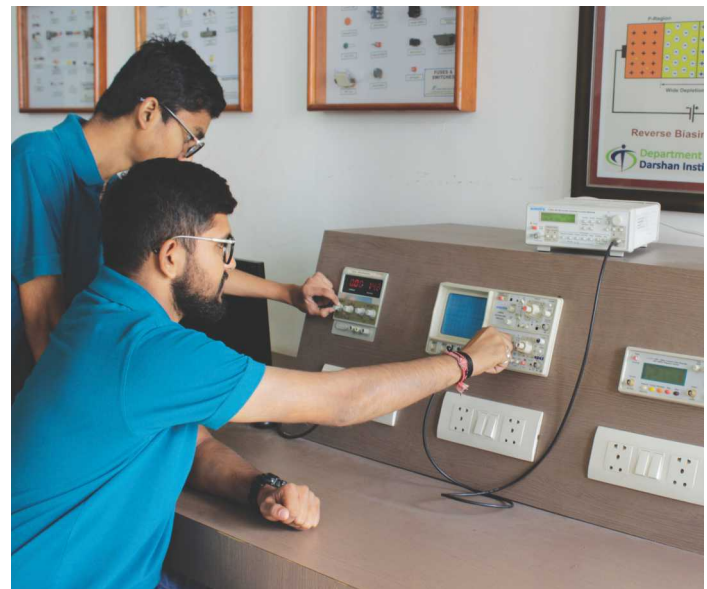
Power Electronics Lab

Electrical Measurement Lab

Micro-Controller & Embedded System Lab

Analog & Digital Electronics Lab

Computer Center

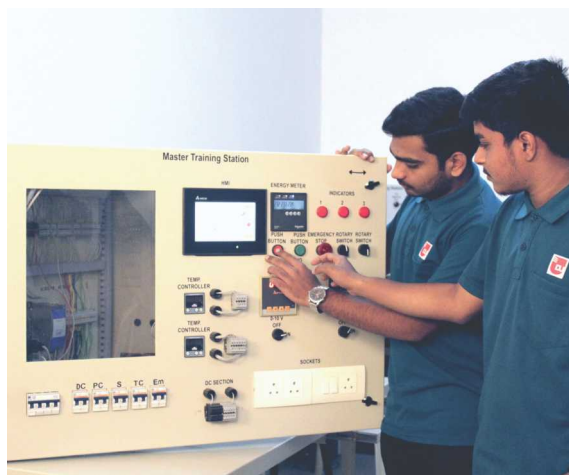


Skill Development & Research Centers

Training and Research Center on Solar Energy

Department is the pioneer and one among very few Engineering Institutes in Gujarat permitted to run the Solar Energy related course.

- Approved by National Institute of Solar Energy (NISE), Ministry of New and Renewable Energy(MNRE).
- 250+ Candidates have been trained on Solar PV Installer (Suryamitra) course.
- Provides training on PV Solar system and supports related research activities.



Center for Advanced Training in Industrial Automation

Center has been setup in association with various industries and intends to cater vocational training for enhancing employability skills.

- Equipped with industrial grade setups on PLC, HMI, SCADA, Servo & Stepper Drives etc.
- Many candidates have been trained on Industrial Automation Specialist under PMKVY Scheme, Government of India.
- Conducted many government funded courses on Industrial Automation.

E-Yantra Robotics & Embedded System Learning Center

Center has been setup in association with IIT-Bombay, under e-Yantra Project of MHRD, Govt. of India.

- Provides platform to students to learn principles of robotics.
- Equipped with required infrastructure and offers the different level courses on robotics & embedded systems.
- Provides platform to students to participate in various competition.



Internet of Things (IoT) Learning Center

Center has been setup as a part of Tinkering Lab. Under Student Start-up and innovation Policy (SSIP), Government of Gujarat.

- Provides training on IoT.
- Center is equipped with IoT system development boards & accessories.
- Encourages students to take up innovative projects and convert ideas into marketable products.

Events & Activities

To keep the students regularly aware about the cutting edge technologies in the various fields of electrical engineering, the department regularly invites eminent speakers from renowned industries and conduct workshops, seminars, skill development activities and also arrange industrial visits on the regular basis. These activities can help the students to turn theoretical concepts into the real-world applications.

Events & Activities organized every year

10+

Workshops

5+

Expert Talks

10+

Seminars

15+

Industrial Visits



Consultancy - Energy Management Cell

Energy Audit *(130 Projects Completed)*

Electrical System, Electric Motors and Variable Speed Drives, Compressed Air System, HVAC and Refrigeration System, Fans and Blowers, Pumps, Cooling Tower, Lighting System, DG Set System, Boiler, Furnaces, Heat Exchangers, Measurement of illumination.



Flow Meter
(Endress+Hauser P93T)

Electrical Safety Audit *(248 Projects Completed)*

Scrutiny of Electrical Hazards, Scrutiny of Static Electricity Hazards, Earthing System Installation & Inspection.



Power Analyzer
(Chauvin-Arnoux 8332B)

Testing *(250 Projects Completed)*

Induction Motor, Pump



Power Analyzer
(KRYKARD ALM32)

Feasibility Study of PV Solar *(500 Projects Completed)*

Governing Body Approval Support, Technical Drawing and Design, Data Collection, Performance Testing, Procurement, Tender Documentation, O & M.



Earth Resistivity Tester
(Chauvin-Arnoux CA 6471)

Thermal Imaging *(135 Projects Completed)*

Generators, Electric Motors, Transformers, Switchgears, UPS, Battery Banks, Furnaces, Boilers, Pumps, Compressors, Chillers, Blowers/Fans, Cooling Towers, Industrial Gearboxes/Bearing.



Thermal Imager
(FLUKE Ti32)

Power Quality Testing *(140 Projects Completed)*

Identification of PQ problems, solutions to Harmonics & Power factor.

Equipment Design *(5 Projects Completed)*

Recuperator, Induction Motor, Transformer, PMSM.



Earn While You Learn

The students get opportunities to be part of the various projects carried out by the consultancy cell in different types of industries.



NABL Accredited Motor & Pump Testing Lab



DETRL (Darshan Electrical Testing & Research Laboratory) is accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL), in accordance with ISO/IEC 17025:2017 and it offers consultancy services in the field of Rotating Electrical Machines for Electrical Testing. The Laboratory provides cutting edge technology solutions for industrial testing, research and development in the domain of Induction Motors, Centrifugal Pumps, Self-priming Pumps and Submersible Pumps.



Pump Testing Facility

Complete Automatic Testing Setup up to 37 kW pump as per IS 8034 : 2018-Submersible Pumpsets, IS 14220:2018-Openwell Submersible Pumpsets, IS 9079:2018-Monoset Pumps, IS 8472:1998-Regenerative Pumps, IS 6505 (Part 1):2002- Horizontal Centrifugal Pumps

Induction Motor Testing Facility

Regenerative Testing Setup up to 11 kW as per IS-12615:2018, IS-996:2009 and IS-9283: 2013

Empanelment of Laboratory for
Check Testing under Standards &
Labelling Programme-Round-II



Bureau of Indian
Standards (BIS)
recognized Laboratory



- **Only 6 NABL laboratories** all over India that facilitates same scope of testing.
- **India's first & only university** to achieve BIS & NABL Accreditation in Motor & Pump Testing.
- **First Private** Motor and Pump Testing Laboratory in Rajkot.
- **Developed in-house** and used world class measuring instruments.

Beneficiary:

Society

- 600+ Pump Manufactures in Rajkot.
- 50+ Induction Motor Manufactures in Rajkot.
- 350+ projects completed.

Students

- Experiments, measurements, testing & automation.
- Be part of industrial testing and R&D activities.
- Secure better placement in Motor & Pump Industries.

Faculty

- World class measurement and testing facilities to carry out R&D activities.
- Live interaction with industries and exposure to recent trends in motor & pumps.

Our Proud Alumni

35+
in
Government
Organization



Sandip Dekavadiya
Asst. Jr. Engineer
ONGC, Surat



Suketu Raval
Dy. Executive Engineer
R&B, Bhavnagar



Parul Viroja
Junior Engineer
PGVCL, Lalpur



Pooja Makwana
Junior Engineer
PGVCL, Wankaner



Parth Bhadja
Assistant Engineer
SMC, Surat



Nitin Loriya
Junior Engineer
GETCO, Morbi



Navin Detroja
Technician Telecom
Railway, Vadodara



Ashish Hirapara
Junior Engineer
DGVCL, Surat



Divyaba Jadeja
Junior Engineer
PGVCL, Gariyadhar



Amit Vasoya
Asst. Jr. Engineer
ONGC, Mehsana



Meera Bhalodiya
Junior Engineer
GUVNL, Vadodara

25+
Core
Entrepreneur



Vikas Loh
Relexo Technology
Tankara



Nirav Madhvani
Possible Automation
Rajkot



Bhavik Gandhi
Infrax Solar
Rajkot



Chandresh Hothi
Sunbond Energy
Mitana



Yogesh Dalsaniya
SASA Energy
Morbi



Vivek Bhadja
R&B Technology
Morbi



Umesh Makasana
Impel Engineers
Rajkot



Raviraj Katesiya
Starshine Elevator
Rajkot



Devang Nimavat
Vecton Energy
Morbi



Prakash Patel
i Sun Solar
Rajkot



Ravi Ratanpara
Signus Innovation
Rajkot

300+
in
Private
Organization



Ashish Nanvani
SCADA Engineer
Vanderlande



Divyesh Viramgama
Project Lead
Equinox Solar



Ghanshyam Thanki
Project Engineer
Gama Engineering



Vishal Maraviya
Senior Engineer
LG Soft India



Kailash Vangani
Control Executive
Cybernetik



Vishal Batavia
Sr. Engineer
Falcon Pumps



Keval Vaghadiya
Project Engineer
Virtuoso Projects



Nikhil Visapara
Engineer
Inst. of Plasma Res.



Pratik Makwana
Engineer
Bluestar India




















Tariq Ansari
Q. C. Engineer
Apar Industries









Umesh Tekchandani
Project Engineer
Servilink System

Top Placements (2017-21 Batch)

21 Students have been placed in 28 companies through campus placements







 Jaydip Vaghamshi 180543109040 CTC per Annum ₹3.30 Lacs Placed in OLA ELECTRIC Bangalore	 Keval Doshi 180543109018 CTC per Annum ₹3.30 Lacs Placed in OLA ELECTRIC Bangalore	 Chirag Dodiya 180543109017 CTC per Annum ₹2.64 Lacs Placed in GREEN REVOLUTION POWERPARK LLP Morbi	 Nikunj Vyas 170543109020 CTC per Annum ₹2.64 Lacs Placed in GREEN REVOLUTION POWERPARK LLP Morbi	 Kaushik Rampariya 180543109037 CTC per Annum ₹2.64 Lacs Placed in GREEN REVOLUTION POWERPARK LLP Morbi	 Yash Baldha 180543109003 CTC per Annum ₹1.56 Lacs Placed in Siddhi Vinayak Electricals Surat
 Dhaval Memakiya 180543109029 CTC per Annum ₹1.44 Lacs Placed in RENOWN ELECTRICALS Rajkot	 Vishal Chandra 180543109011 CTC per Annum ₹1.44 Lacs Placed in RENOWN ELECTRICALS Rajkot	 Rajan Gohel 180543109021 CTC per Annum ₹1.44 Lacs Placed in RENOWN ELECTRICALS Rajkot	 Dharmik Padaliya 180543109032 CTC per Annum ₹1.44 Lacs Placed in redren Rajkot	 Ankit Kanpariya 180543109024 CTC per Annum ₹1.44 Lacs Placed in redren Rajkot	 Narendra Parmar 170540109008 CTC per Annum ₹1.44 Lacs Placed in  Ahmedabad
 Dhaval Padhiyar 170540109006 CTC per Annum ₹1.44 Lacs Placed in  Ahmedabad	 Rutvik Barvadiya 180543109004 CTC per Annum ₹1.44 Lacs Placed in  Ahmedabad	 Harsh Vaishnani 180543109041 CTC per Annum ₹1.26 Lacs Placed in EPP Rajkot	 Nikita Gorvadiya 180543109022 CTC per Annum ₹1.20 Lacs Placed in I SUN GROUP Rajkot	 Jigar Mav 180543109027 CTC per Annum ₹1.20 Lacs Placed in  Jamnagar	 Ronak Mehta 180543109028 CTC per Annum ₹1.20 Lacs Placed in ASCENT ENGINEERS ASCENT ELECTRIFICATION ENGINEERS Jamnagar

Top Placements (2018-22 Batch)

 Trupesh Shingala 190543109016 CTC per Annum ₹2.10 Lacs Placed in JYOTI Rajkot	 Mohammadasir Mansuri 180540109004 CTC per Annum ₹1.44 Lacs Placed in SUNNOVATIVE Rajkot	 Niraj Nakum 190543109005 CTC per Annum ₹1.44 Lacs Placed in SUNNOVATIVE Rajkot	 Paras Parmar 190543109014 CTC per Annum ₹1.44 Lacs Placed in SUNNOVATIVE Rajkot	 Jemin Aghera 190543109001 CTC per Annum ₹1.32 Lacs Placed in BALAJI Rajkot	 Dishant Pandya 190543109006 CTC per Annum ₹1.32 Lacs Placed in BALAJI Rajkot
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The Placement of Batch-2022 is still ongoing.

Placement @ Glance

		2018	2019	2020	2021
 Registered	>	60	32	21	21
 Placed	>	47	30	19	21
 Placed Percentage	>	78.33%	94.00%	90.48%	100%
 Highest Package	>	3.00 LPA	1.80 LPA	2.40 LPA	3.30 LPA
 Average Package	>	1.55 LPA	1.47 LPA	1.56 LPA	1.69 LPA
 No. of Companies	>	18	15	17	28

The Placement of Batch-2022 is still ongoing.

Top Recruiters

Scan QR Codes



Department of
Electrical Engineering



Electrical
Laboratories



Energy
Management Cell



Motor & Pump
Testing Lab



Career after
Electrical Engineering



Campus
Video



योग: कर्मसु कोशलम्

Darshan
UNIVERSITY

University Campus

- 📍 Rajkot-Morbi Highway,
Rajkot – 363650.
- ☎ 9727747310 / 11
- 🌐 www.darshan.ac.in

Counseling Centre

- 📍 401, Lotus Arcade, 8 - Royal Park,
Between KKV Circle & Indira Circle
150 Ft. Ring Road, Rajkot - 360005.
- ☎ 9429050495, 7990448878