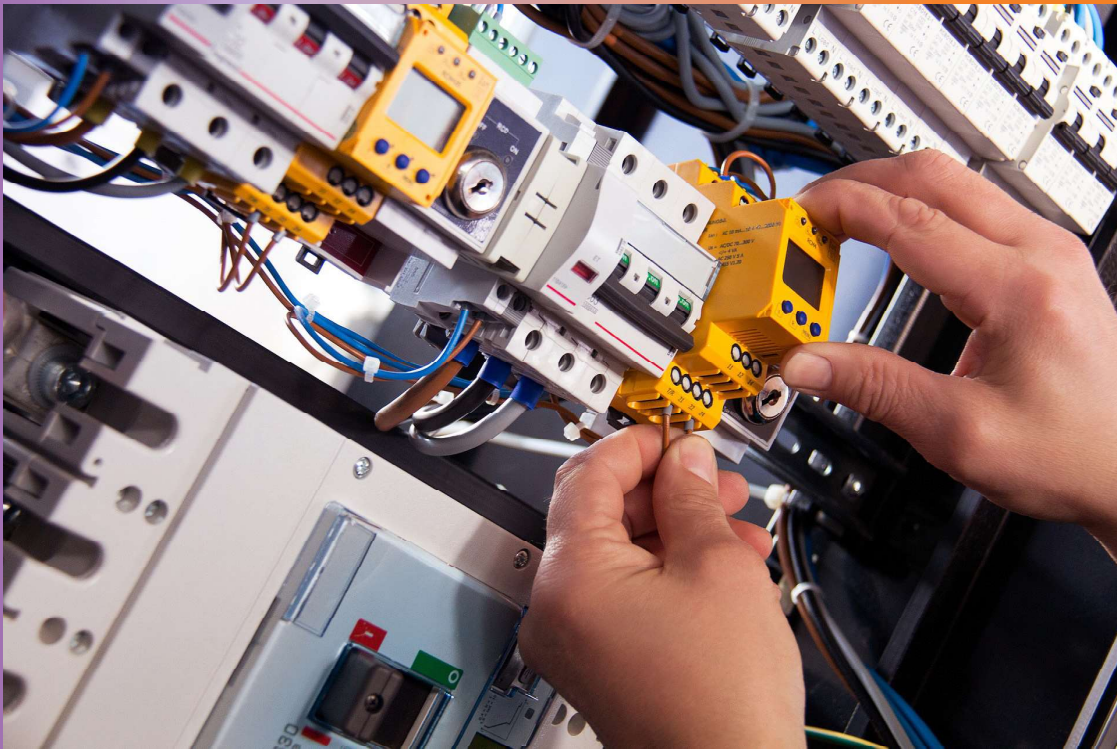


Completion of this certificate will provide you necessary skills for designing, installation, maintenance, and repair of electrical wiring of buildings and industrial setups

## **DOMESTIC & INDUSTRIAL ELECTRICIAN CERTIFICATE**



### **WHO**

**should join Domestic & Industrial Electrician Certificate?**

Young dynamic individuals seeking a professional career in electrical industry are encouraged to apply. This certificate is specifically designed to help you get familiar with electrical wiring and design. We bring your passion and ambition to life with requisite practical knowledge empowering you to install electrical wiring for the domestic and industrial load applications.

## ABOUT

### **Domestic and Industrial Electrician Certificate Program**

Electrical wiring is an important and critical technology in all buildings, whether residential, commercial, or industrial. An electrician is responsible for the proper electrical wiring design according to the load requirements and functionality following the safety standards. Various equipment, switching arrangements, control circuitry, and machines are essential parts of domestic and industrial wiring. A few primary responsibilities of an electrician are:

**Domestic & Industrial wiring layout**

**Control and switching circuitry (Relay) for electrical machines**

**Repair & maintenance of domestic and commercial machines**

**The winding of electrical motors and transformers**

Successful completion of this certificate will provide you the right balance of knowledge, skills, attitude, and work experiences essential elements of employability in the industry.

### **POTENTIAL JOB OPPORTUNITIES ON COMPLETING DOMESTIC/INDUSTRIAL ELECTRICIAN CERTIFICATE**

- Lineman in WAPDA
- Line Superintendent (LS-1) in WAPDA
- Line Superintendent (LS-2) in WAPDA
- Supervisor in motor suppliers and manufacturers
- Maintenance Technician in manufacturing companies
- Installation foreman in manufacturing companies
- Industrial electrician
- Household electrician
- Supervisor in motor winding workshops

## COURSE DELIVERY

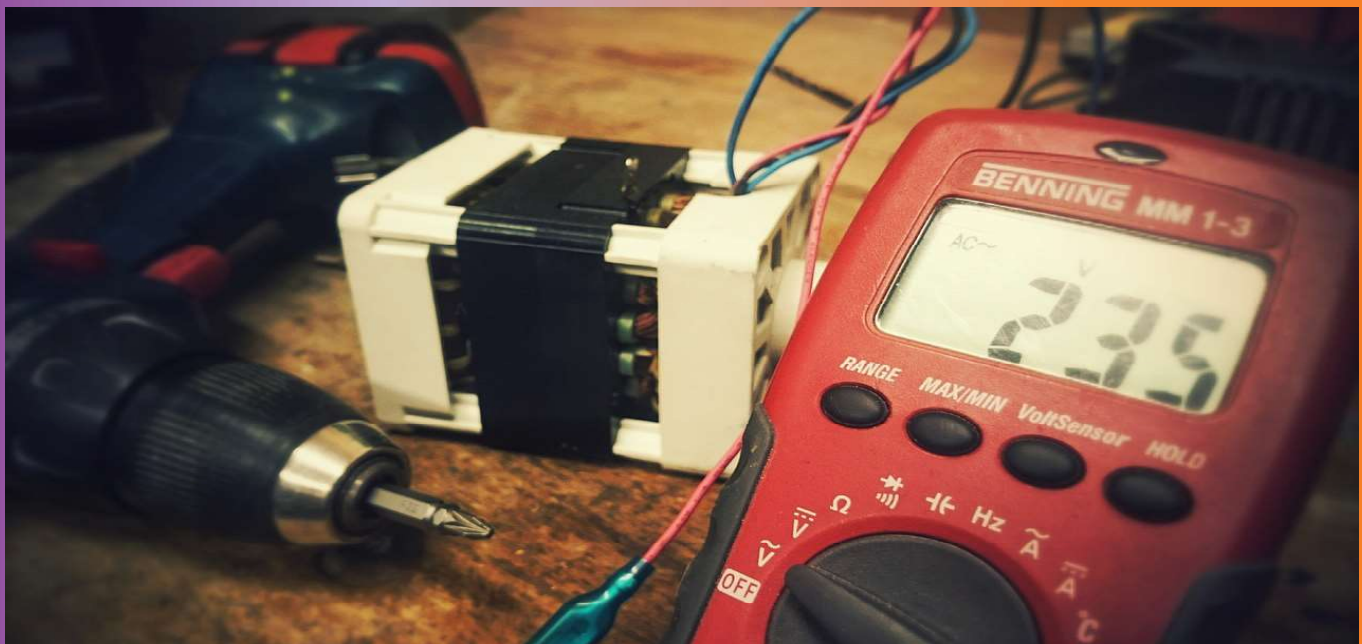
Delivery of all courses at the National Skills University involves instructor-led three modes.

- i. On-campus learning
- ii. Practical experience in relevant industry
- iii. Online learning (only if needed in emergent situations like COVID-19 etc.)

We have all the standard operating procedures in place for the safety of students, teachers, and employees.

Providing state of the art skills is our priority. Practical training is provided in our laboratories as well as through relevant industry collaborations.

- This course is taught by professionals having industry experience.
- You will learn how to work in a group with fellow students. Always observe ethical and social behavior during class and practicals.
- This course involves both supervised and self-directed learning built in your timetable. However, most of the time you will have an instructor with you.
- Violation of safety or university rules is strongly prohibited, you have to always manifest ethical behaviour, protect equipment available to you at the university laboratories.



**From Basic to Advanced  
Gradual Learning of Skills**

## SKILLS YOU WILL LEARN FROM DOMESTIC and INDUSTRIAL ELECTRICIAN CERTIFICATE

- Industrial safety practices & standards
- Electrical load distribution and balancing
- Electrical wiring design
- Layout of electrical wiring conduits and wires as per design
- Layout of electrical switches and circuit breakers
- Design of control and switching circuitry
- Electrical windings of transformers and motors
- Power factor calculation

## TASKS YOU CAN PERFORM (COMPETENCIES) ON CERTIFICATE COMPLETION

- Observe electrical rules regarding safety and operation
- Prepare electrical drawings, i.e., current path layout and wiring diagram
- Use basic electrical machines including lathe/drill/grinding machines, generators, transformers, etc.
- Design domestic and industrial wiring diagram according to load requirements and distribution
- Lay domestic, commercial and industrial conduits and wires as per specifications
- Design, operate and troubleshoot control circuits
- Install and troubleshoot electrical motors, generators, transformers and their windings
- Test & overhaul electrical machines.
- Power factor correction

Kindly see admission rules  
Candidate should have passion to  
serve as Domestic and Industrial Electrician with  
at least intermediate second division  
or  
equivalent

**SKILLS ORIENTED LEARNING MODULES  
FOR  
DOMESTIC AND INDUSTRIAL ELECTRICIAN CERTIFICATE**

The certificate offered by the National Skills University has thirteen modules. Each module has been prepared by professionals working in the field. Each module's primary focus is to provide students with the necessary skills and abilities of domestic and industrial electrician.

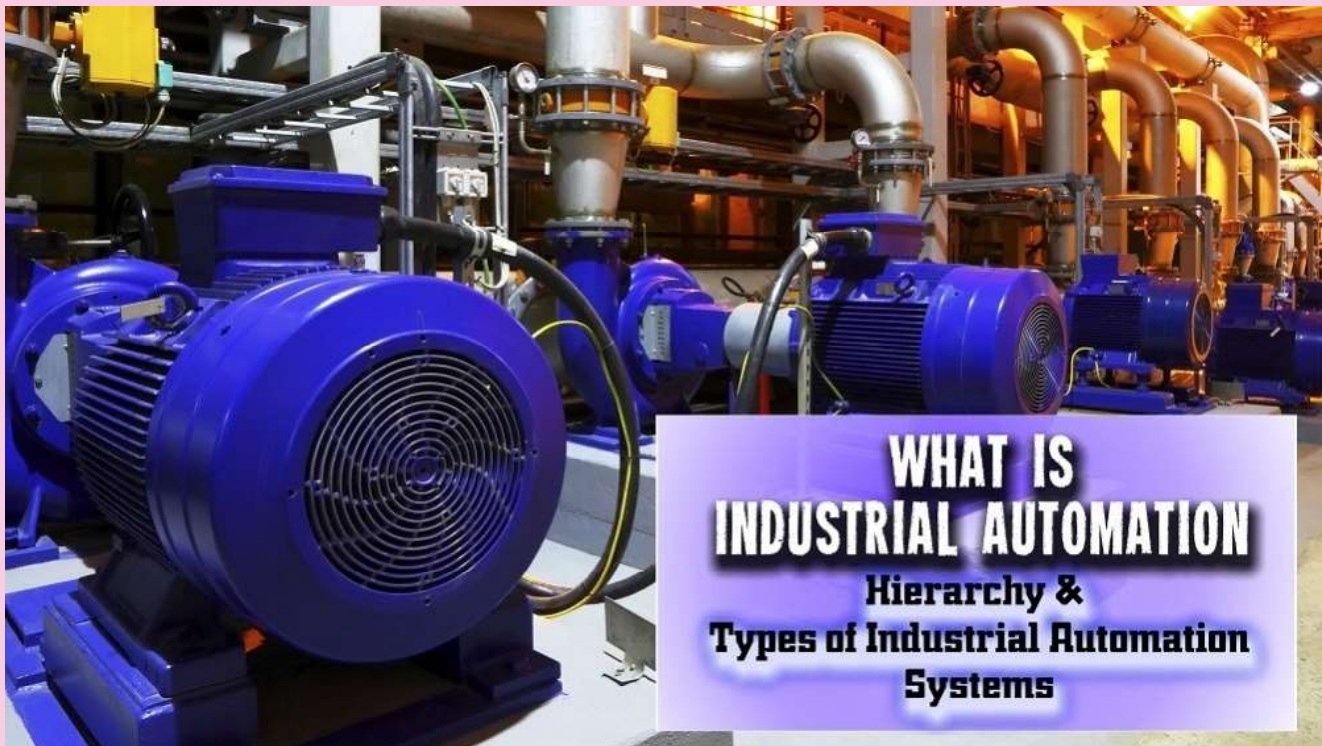
<b>Module 1:</b> Course introduction and importance	(1 week)
<b>Module 2:</b> Electrical safety and work practices	(1 week)
<b>Module 3:</b> Test & measurement instruments	(4 weeks)
<b>Module 4:</b> Electrical components	(3 weeks)
<b>Module 5:</b> Basic principles of current and electrical flow	(2 weeks)
<b>Module 6:</b> DC circuit layout and measuring instruments	(2 weeks)
<b>Module 7:</b> AC wiring standards, conduits and layout	(5 weeks)
<b>Module 8:</b> Power factor	(1 week)
<b>Module 9:</b> Electromagnetic principles, machines, and their winding	(2 weeks)
<b>Module 10:</b> Control and switching circuitry	(2 weeks)
<b>Module 11:</b> Projects and case studies	(1 week)
<b>Module 12:</b> Industrial visits & workshop	(1 week)
<b>Module 13:</b> Presentations	(1 week)

\* \* \* \* \*

# Examination Week

Enables students to work in any advanced automated industry by gaining competency and required skills about industrial automation technologies.

## **INDUSTRIAL AUTOMATION CERTIFICATE**



### **WHO**

#### **should join Industrial Automation Certificate?**

Bright and young technology enthusiasts seeking a professional career in modern manufacturing industries are encouraged to apply. This certificate is specifically designed to polish your skills in industrial automation technologies. We bring your passion and ambition to life with requisite practical knowledge enabling you to design, specify, configure, install, and commission a complete PLC system in the industry.