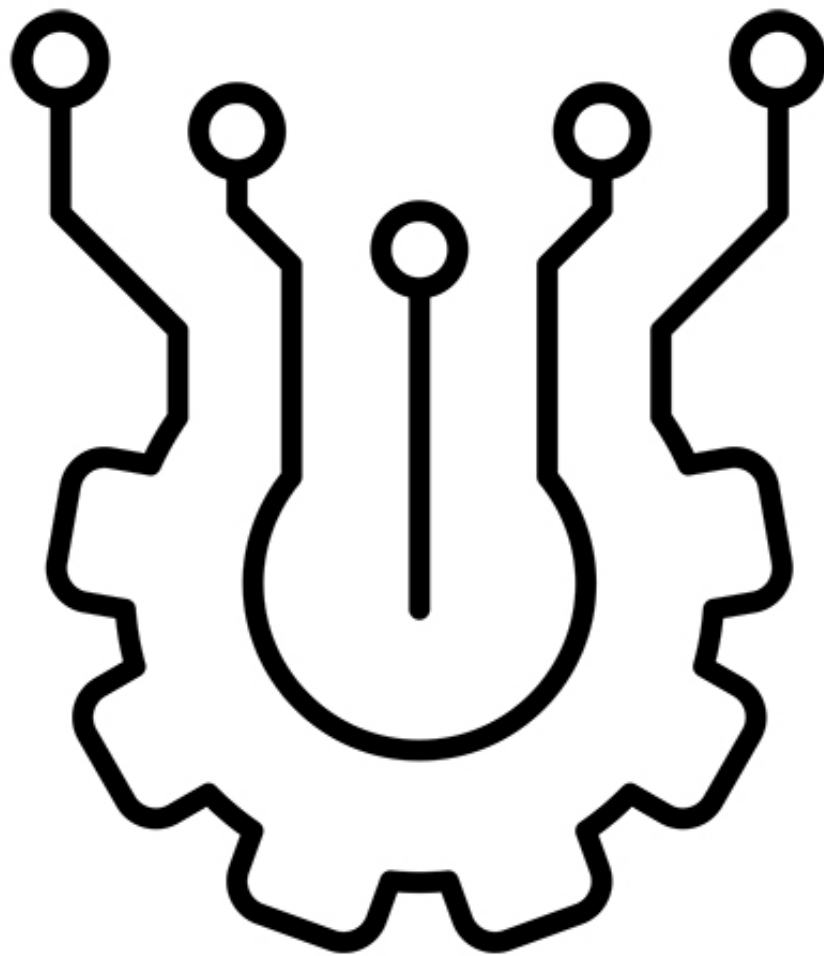


# MODULAR

PROGRAMMES







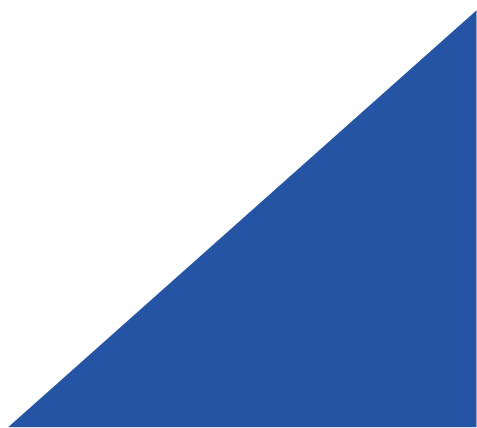
## ABOUT IIT

A Project of African Development Foundation (ADF)

Technical Vocational Education and Training (TVET) Institution

Transforming Lives...

- Conducive learning environment
- Standard instructor to trainee ratio
- Over 19 years of quality service delivery
- Well equipped labs, workshops, and e-learning centre
- International standards, local relevance
- Combination of In-School and In-Company training
- Tutorial/counselling system
- Sporting facilities
- 70% practical content
- Quality technical education with strong emphasis on work ethics and values





The IIT Modular programmes are multi-skilling technical programmes aimed at impacting relevant technical skills in a flexible and intense manner to participants which would enable them improve their work productivity and in turn become relevant to the industry. It is also aimed at preparing participants to fit seamlessly into various industrial or engineering services work environments.

### Objectives:

The programmes aim at

- Impacting key technical knowledge
- Acquiring and developing
  - o Troubleshooting skills
  - o Installation and commissioning skills
  - o Maintenance skills
  - o Fabrication skills
  - o Technical ICT skills
- Work values and personal leadership skills.





Each technical programme has a duration of 1 year (12 months). The programmes run on Saturdays. Also, a full week each quarter would be required along side with the Saturdays to complete the programme.

This programme is structured to develop individuals working in a technical environment who do not have the time to undergo a full-time programme. However, individuals of various needs and status who find the programme appealing can also enrol.

Although anyone can attend this programme but in order to be admitted into the programme one needs to have numeracy skills, literacy skills and a good understanding of physics. Also, to be admitted into the programme one needs to undergo IIT's entrance assessment and interview.

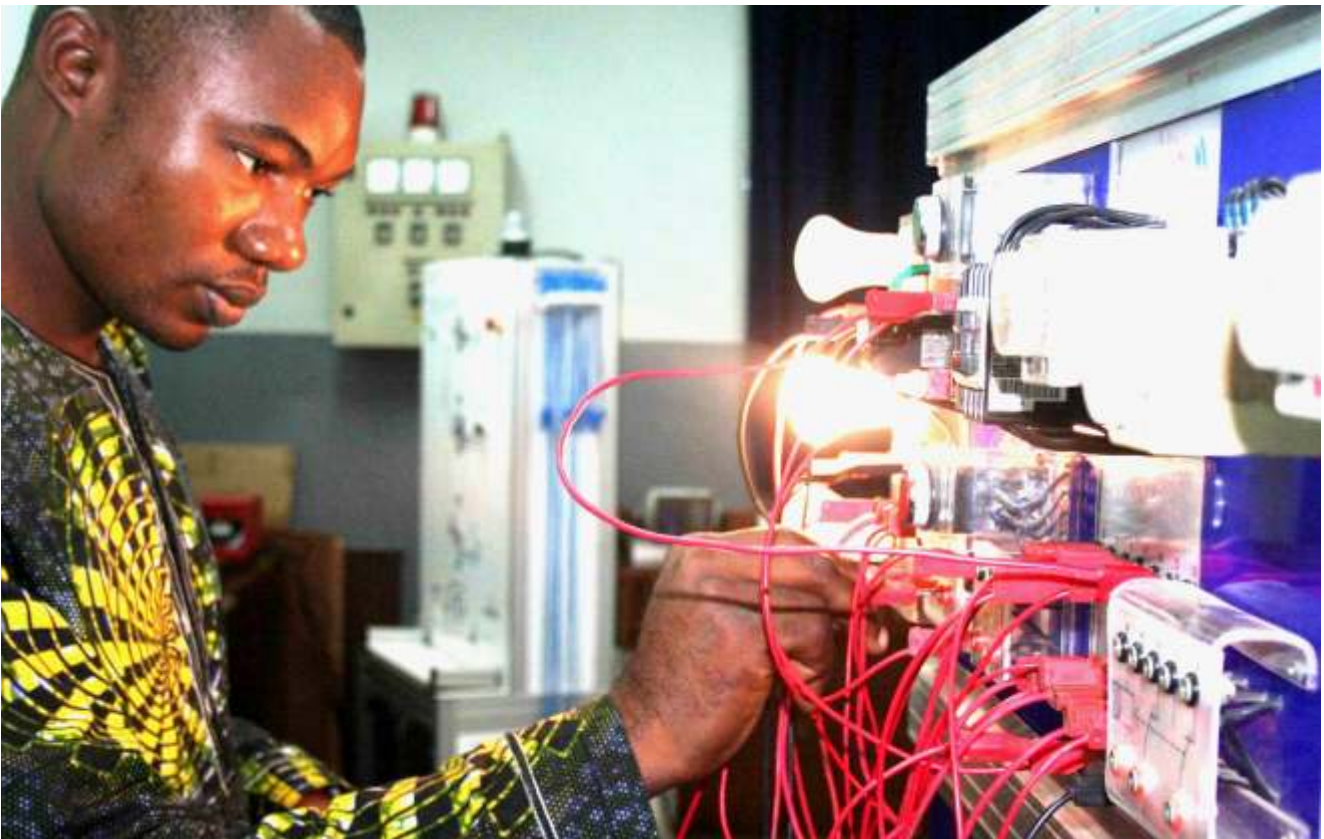
Admitted participants are confirmed to start the programme after the payment of the acceptance fee. The maximum class size for each programme is 24. The academic policy of these programmes shall follow the IIT's standard graduate/professional programme policy.

All fee payments are made in installments every quarter (3 months) after the payment of the first installment (acceptance fee).



Intense and practical learning...

# ELECTRICAL MAINTENANCE



*This programme runs yearly.*

Work Values  
CAD & Blueprint Reading  
Data Analysis  
Mechanical Measurement and Fitting  
Industrial Safety  
Fundamentals of Electrics  
Power Electronics  
Industrial Motor Controls & Maintenance  
Variable Speed Drives  
Building Wiring  
Power Transmission, Distribution and Protection Systems  
Building Management Systems

Virtually every system runs on electricity. The Electrical Maintenance programme training at IIT aims at equipping participants with skills required to measure, maintain, install, troubleshoot, repair, and upgrade electrical equipment, components, and machinery.

Though the course is heavy in electrical, it also has a bit of mechanical and automation trade component. Graduates of this course are capable of working in the electrical or technical service department of any organisation/industry.



# MECHATRONICS



Work Values

CAD & Blueprint Reading

Pumps and Compressors

Mechanical Measurement and Fitting

Mechanical Drives Maintenance & Lubrication

Fundamentals of Electrics

Industrial Motor Controls & Maintenance

Industrial Pneumatics Automation Systems

Fundamentals of Industrial Hydraulics

Sensor Technology

Fundamentals of Programmable Logic Controls (PLCs)

Advance PLC

Industrial Communication

Process Control and Instrumentation

Process Control and Visualization

Power Electronics

Variable Speed Drives

The Mechatronics programme in IIT is aimed at equipping participants with essential knowledge and hands-on, up-to-date engineering skills required by employers in the Breweries, Food and Beverages, Petrochemicals, Oil and Gas, Engineering services and Manufacturing sectors

The course modules cover analyses Commissioning and Programming of networked factory and process automation systems. The participants will use modern state-of-the-art learning equipment at the Institute.

*This programme runs yearly.*





Offering value, for over 19 years...

# CONTROL & INSTRUMENTATION



*This programme runs yearly.*

Work Values

Fundamentals of Industrial Hydraulics

Industrial Pneumatics Automation Systems

Sensor Technology

Fundamentals of Programmable Logic Controls (PLCs)

Advance PLC

Industrial Communication

Process Control and Instrumentation

Process Control and Visualization

Power Electronics

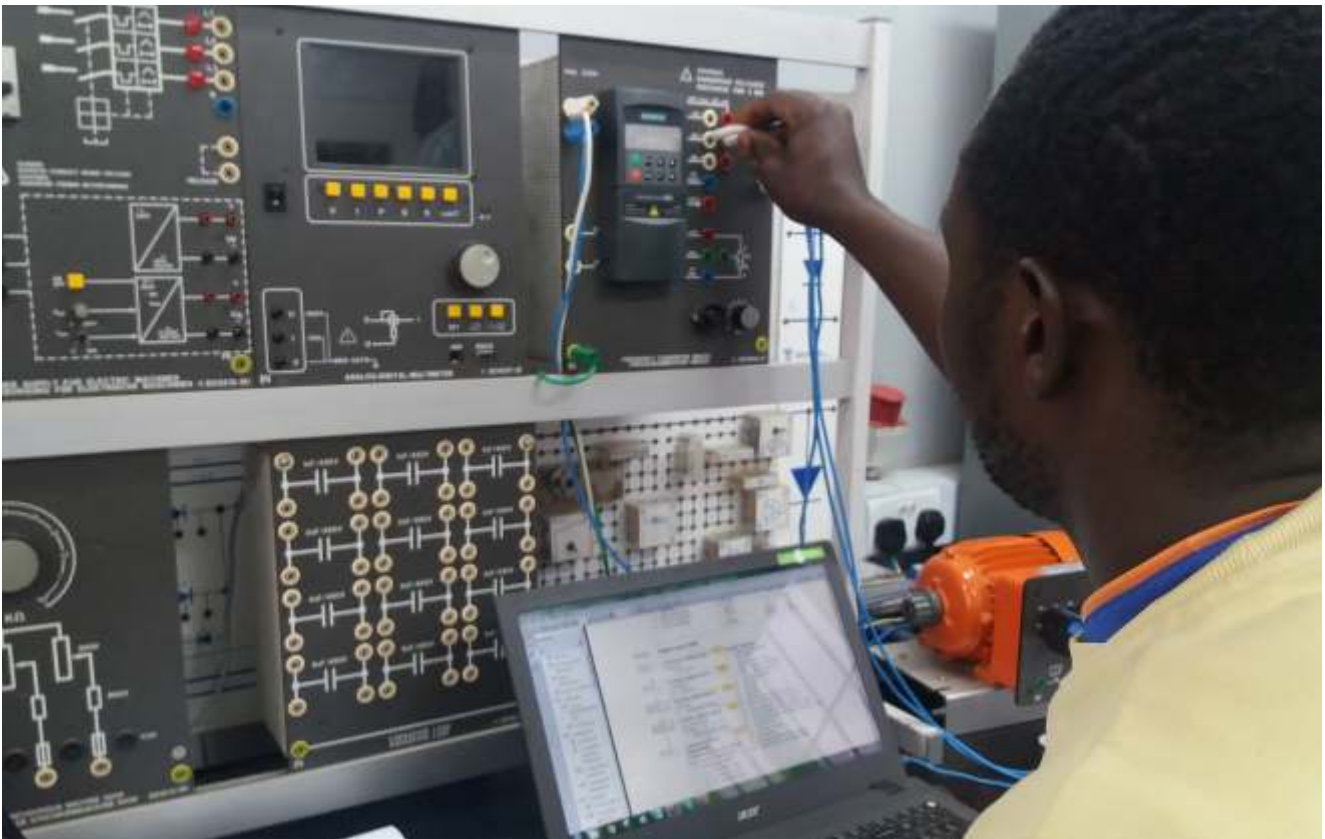
Industrial Motor Controls & Maintenance

Variable Speed Drives

The Control and Instrumentation programme at IIT aims at equipping participants with key technical knowledge and skills required to troubleshoot, install, commission, maintain, and modify control devices used in industrial and commercial processing. Control and instrumentation technicians ensure that industrial equipment, machinery, and processes are working efficiently.

Though the course is heavy in automation, and with some electrical trade components. Graduates of this course are able to work in high level industrial environments.

# INDUSTRIAL SERVICE TECHNICIAN



Work Values

Data Analysis

CAD & Blueprint Reading

Pumps and Compressors

Mechanical Measurement and Fitting

Mechanical Drives Maintenance and Lubrication

Fundamentals of Electrics

Power hand tools

Industrial Safety

Industrial Motor Controls & Maintenance

Variable Speed Drives

Industrial Pneumatics Automation Systems

Fundamentals of Industrial Hydraulics

Pipe fittings

Refrigeration and Air-conditioning

Fundamentals of Engines

Sensor Technology

An Industrial Service Technician programme is a multi-skilled service technician with skills in areas such as electrical, mechanical and automation trades. These technicians can readily fit into various technical setups and serve as field technicians. They can also be easily trained and modified to engage clients of a specialized technical setup.

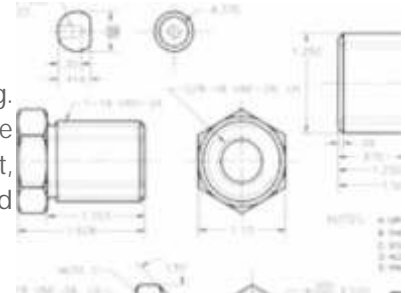
Industrial Service technicians have good technical knowledge with basic fabrication skills. They are also able to troubleshoot, install, commission and maintain machineries and erumpent of various degrees.

*This programme runs yearly.*



### ENGINEERING DRAWING/BLEUPRINT READING

This course covers the basics of engineering drawing and blueprint reading. Course is designed for trainees with little or no drafting background. Course content includes careers in drafting/engineering, use of drafting equipment, drafting techniques, lettering, geometric construction, multi-view and isometric drawings, sectional and auxiliary views, and basic dimensioning...



### MECHANICAL MEASUREMENTS & FITTINGS

This course deals with the selection, proper use, and maintenance of mechanical measuring instruments. Care in the handling of the instruments is emphasized. The use of measuring templates is also emphasized. Also, it provides trainees with the basic skills on bench work. Strict compliance to correct work procedures and techniques as well as safety practice is given strong emphasis...



### FUNDAMENTALS OF ELECTRICS

The course is designed to provide knowledge of the fundamental principles, concept and terminology of electrical technology. It provides the background for understanding and application of concepts in electrical trade including electrical installations, measuring instruments, signal processing, power transfer and energy conversion process..



### ELECTROPNEUMATIC CONTROLS

This course deals with the control of pneumatics actuators using pneumatics and electrical sensing and switching devices. Electrical principles are covered at a basic level, but some previous knowledge of pneumatic equipment is required. Both functions and operation of switches, relays, and solenoid operated valves and proximity sensors are included and trainees put theory into practice through practical hands-on exercises...



### PUMPS AND COMPRESSORS

This subject deals with the study of the principles, operation and maintenance of pumps and compressors. Basic fluid principles of hydraulic, centrifugal pumps, rotary pumps, reciprocating and special service pumps as well as their parts and auxiliary devices. It also deals with the study of compressed air fundamentals, compressor accessories, principles of dismantling and assembling of machines mentioned above...



### POWER ELECTRONICS

This course is designed to teach trainees about electric power control, regulation and conversion (ac to dc, dc to ac, and dc to dc) by the use of semiconductor devices and electronic circuits. It also deals with the use of electronic techniques for control of electric motor operational characteristics (speed, torque, etc.)...



For payment details, programme start dates,  
and interview schedules kindly contact:

**IIT Admissions Office:**

09035616248

[admissions@iit.edu.ng](mailto:admissions@iit.edu.ng)

### ELECTRICAL MOTOR OPERATION AND MAINTENANCE

This course deals with the principles of operation, construction, circuit connection, and characteristics of AC motor controllers. Starting with fundamentals, it proceeds step by step, through all the basic kinds of starters the participant-trainee will encounter in the industry. It explains what kinds of controls are available, how they operate, where they are used and why they are designed to operate as they do...



### VARIABLE SPEED DRIVES

This course also provides trainees with fundamental working principles of variable speed drives. Using practical hands-on exercises on VSD, the trainees learn how to select, install, program, maintain, or troubleshoot variable speed drives. Trainees will also become familiar with the drive's Human Machine Interface (HMI), which allows programmers, maintainers, and trouble-shooters access information stored within the drive...



### WORK VALUES - PRINCIPLES OF EFFECTIVENESS

Personal effectiveness has long been recognized as the foundation for interpersonal and organizational effectiveness. In this module, the trainees will be exposed to the 7 Habits of highly effective people and 5S methodology. They will be encouraged to incorporate the 7 Habits and 5S methodology into their personal, family, social and professional life...



### COMPUTER AIDED DRAFTING

This course is designed to prepare to student who possess manual electrical/mechanical drafting skills with entry level skills in computer assisted drafting. Upon successful completion of this course the student will have a working knowledge of how to properly use a CAD system and how it applies to the industry. Practical aspects include all drawing and editing features of the AutoCAD computer graphics software...



### FUNDAMENTALS OF INDUSTRIAL HYDRAULICS

This course deals with the fundamental concepts related to the control of hydraulics equipment. It covers the knowledge of the physical laws and relevant standards and units, the technical terms and their definitions, as well as the design and principles of operation of the different basic hydraulics control elements. Laboratory practice includes simulations of hydraulics control circuits...



### ADVANCED PROGRAMMABLE LOGIC CONTROL (ADVANCED PLC)

Designed to further develop trainees' programming skills, the course aims to improve their ability to convert control tasks to fully operational systems. The course continues on from the 'Basics to PLCs' course, with the development of more complex control problems. Additional functions such as timers and counters are used with sequential controls, and conditional programs plus manual, auto and reset control functions. A strong emphasis is placed on safety and appropriate work practices throughout the course, especially during the practical sessions...







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