

A hands-on training offered  
by KiKi Centre for Technology



# G GRADUATE E ENGINEER T TRAINING

Advanced  
Practical  
Skills  
Program  
(Electrical,  
Electronics,  
Automation)

# Kiki Centre for Technology



Established with the support of a World Bank reflows program, the German Chamber of Skilled Crafts, Koblenz, Germany and Indian industry; Anjali Foundation (under the brand name of Kiki Centre for Technology) has established a high quality, international standard technical training institute at IMT Manesar, Gurgaon, Delhi-NCR.

Kiki Centre for Technology focuses on equipping graduates and professionals with skills as per international standards, providing good theoretical and practical knowledge, which are essential in building a great career.

# About the Course



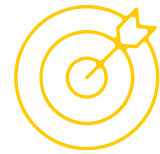
The course focuses on various aspects relevant to industrial automation and maintenance. The area taught include electrical, electronics, PLC, actuators, sensor, mechanical essentials. All this is done through an integrated project.

Students benefit as companies are more likely to recruit students who are industry ready.

Companies benefit as they do not need to spend valuable time & manpower to train graduates. Graduates will be industry ready from day one.

## Course Objectives

This course is focused on upskilling graduate engineer 0-5 yrs experience. The focus is on hands-on training on Various modules that culminate into an integrated project. Graduate engineers become more productive by acquiring practical skills and expertise.



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## Course Structure

This program is divided into several independent modules, each of which focuses on core skills that are required by an engineer. The practical and theoretical classes are led by experts.



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## Who is this course for?

This course is open to graduate engineers and early professionals who require practical training and upskilling in the areas of maintenance & industrial automation.

Automation Engineer | Electrical Engineer |  
Electronics Engineer | Maintenance | Machine  
Builder | Production Engineering | PLC  
Programming | Application Engineer | R & D



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## The Growth Model

**70%** Intensive Practical Training Method, and  
**30%** Theoretical Oriented.

The program is conducted in the form of practical workshop training & classroom sessions.



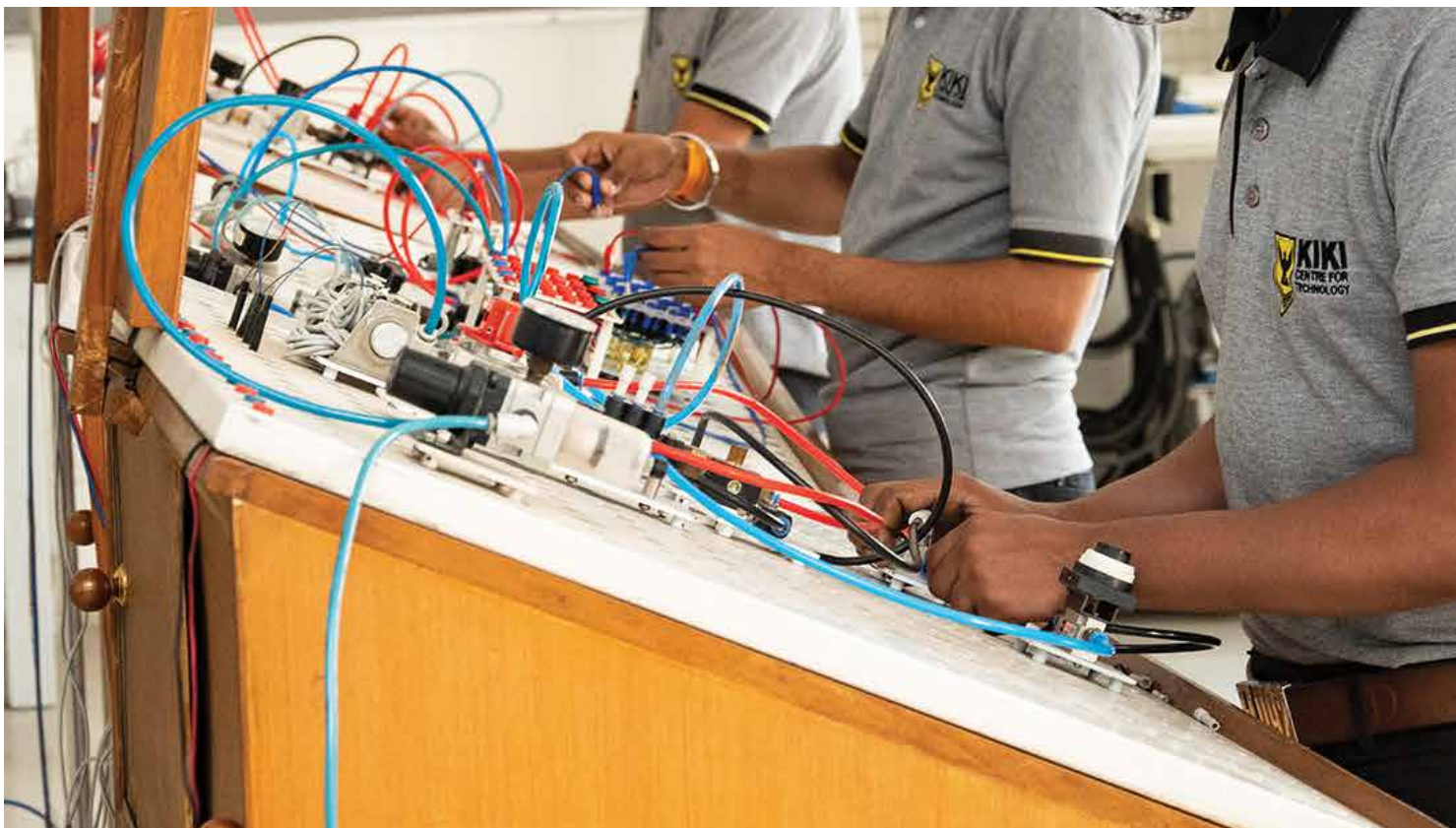


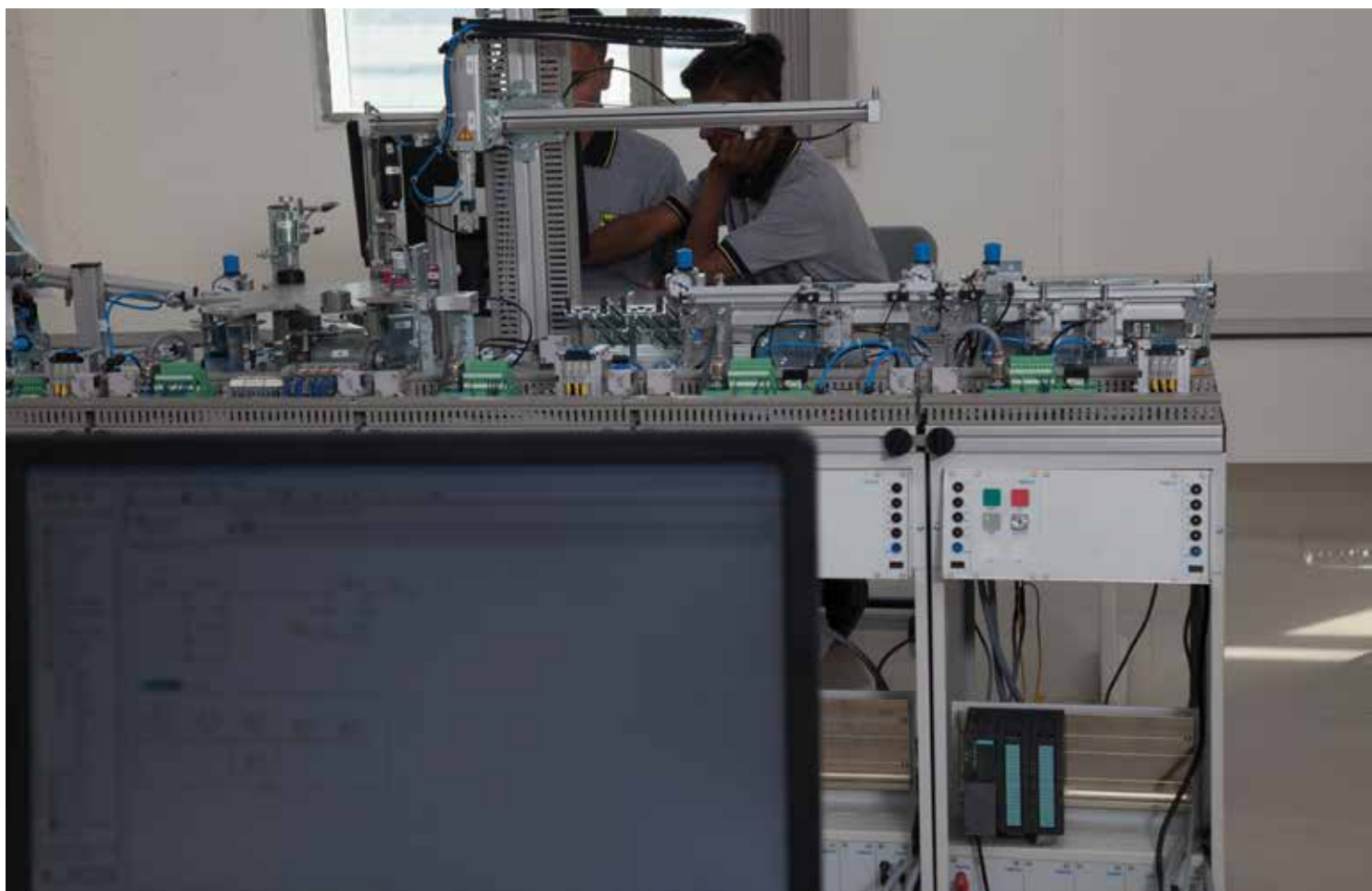
# Course Curriculum



Serial No.	Subject	Syllabus
1.	Electrical	<ul style="list-style-type: none"> <li>• Introduction to V,I,R, &amp; Wiring</li> <li>• Introduction to Switches, Relays &amp; Contactors</li> <li>• Safety devices MCB, RCB, ELCB • Control circuits design and wiring</li> <li>• Motor control circuits &amp; motor selection</li> <li>• VFD Introduction • Transformer • Signal &amp; System (DSO, CRO, Fun Gen)</li> <li>• Switches (SPDT, DPDT, SPST, DPST) • Fundamental law of electrical</li> <li>• Machine (AC Motor, DC Motor &amp; Generator, Servo, Stepper)</li> </ul>
2.	Electronics	<ul style="list-style-type: none"> <li>• Introduction to R,L,C &amp; semiconductor components</li> <li>• Introduction to multimeter, soldering &amp; breadboard</li> <li>• Rectifier &amp; DC power supply design • Logical gates &amp; circuit comparison</li> <li>• Thyristor circuits and switching applications</li> <li>• Introduction to Microprocessor, UC and Microcontroller</li> <li>• Diodes • Terminator• FET • Timer / Counter • Flip Flop, Register</li> <li>• Mux, Demux, Encoder, Decoder • Serial Communication (I2C, SPI, UART)</li> </ul>
3.	IOT	<ul style="list-style-type: none"> <li>• Introduction to Internet of Things (IOT)</li> </ul>

Serial No.	Subject	Syllabus
4.	Pneumatics	<ul style="list-style-type: none"> <li>• Air generation, preparation, pipe layout &amp; FRL</li> <li>• Blocks of pneumatic system &amp; Explanation</li> <li>• Latching &amp; interlocking concept</li> <li>• Meter - in &amp; meter out concept</li> <li>• Design of electro pneumatic circuit including sensors</li> <li>• Design of sequence circuit</li> <li>• Trouble shooting</li> </ul>
5.	PLC	<ul style="list-style-type: none"> <li>• Introduction to PLC &amp; block diagram</li> <li>• PLC hard ware description &amp; wiring</li> <li>• Introduction to PLC software</li> <li>• Hardware configuration through software</li> <li>• Basic PLC instructions &amp; programming</li> <li>• Trouble shooting</li> </ul>
6.	Automation	<ul style="list-style-type: none"> <li>• Introduction to Mechatronis system</li> <li>• Comparison among traditional automation &amp; mechatronics automation</li> <li>• Automation project analysis</li> <li>• Automation project building</li> <li>• Optimization of the project</li> <li>• Trouble shooting procedures and technics</li> </ul>





Serial No.	Subject	Syllabus
7.	TPM & 5S	<ul style="list-style-type: none"> <li>• What is TPM (Total productive maintenance)</li> <li>• Advantages</li> <li>• 7 Pillars of TPM</li> <li>• Implementation of TPM, Importance of 5S</li> <li>• KAIZEN - Continual improvement</li> <li>• How to work on KAIZEN</li> <li>• Practical study on 5s</li> </ul>
8.	Industrial Project	<ul style="list-style-type: none"> <li>• Practical individual/group project</li> </ul> <p>You will be required to carry out an integrated automation project including electrical, electronics, mechanical, PLC, actuators &amp; sensors.</p>
9.	Safety	<ul style="list-style-type: none"> <li>• Understand Safety Regulations</li> <li>• Safety Signs</li> <li>• Working with a safety mindset</li> </ul>
10.	Soft Skills	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Team Work</li> <li>• Taking Responsibility</li> </ul>



# Course Structure



Serial No.	Type of Training	Hours (Approx.)	Remarks
1.	Practical	104	70%
2.	Theory	88	30%
Total Hours		192	Monday to Saturday

#### Course Credit:

This course was originally conceived and designed by German Expert Bruno Heur and conducted for Denso & IFB. It has since been updated keeping in line with advanced technologies.





## Program Chair

**Mr. Sreejith K. V.**

Principal, KIKI CENTRE FOR TECHNOLOGY, GURGAON

A well-experienced faculty in the field of technical training programs, with more than 15 years of experience in teaching.

With expertise in the manufacturing process and systems, he has successfully conducted many programs for different corporates in the country and is specialized in designing training programs to upskill participants.

He is supported by a team of specialist trainers in electrical, electronics & automation to carry out the course which includes an international level student practical automation project.

# Living at Manesar, Gurgaon



## **Accommodation**

Living facilities are available from basic to premium in the surrounding Manesar area. A variety of dining facilities are accessible from simple cooked food to Chinese to great Indian kebabs and fancy Japanese cuisine within walking distance. Additionally shopping malls provide a great shopping experience, movie theaters etc. All available within a 10km distance.

Besides, Gurgaon also offers a premium shopping & entertainment center well known throughout India.

## **Entertainment:**

A club room with pool, table tennis, carom etc. is available on site. Weekend sports facilities are also available for football, Cricket, etc.

## **Transport:**

Local transport facilities such as buses, autos, luxury coaches, taxi, etc are all available. Delhi airport is about 30 Kms away (approx 60 mins travel). New Delhi railway station is about 48 Kms away (approx 90 mins travel).

# About Completion – Certificate & Registration



## Completion Certificate

Participants who successfully complete the classes will receive a certificate of completion, issued by Kiki Centre for Technology

## Registration Process

Admission Office

Kiki Centre for Technology, Plot 33, Sector 3, IMT Manesar, Gurgaon: 122050

Phone No. : (0124)-4060694/5/8800288994

e-mail: [info@kikicentre.com](mailto:info@kikicentre.com)/[corporatetraining@anjali-foundation.org](mailto:corporatetraining@anjali-foundation.org)

Website: [www.kikicentre.com](http://www.kikicentre.com)

## Accomodation

Basic to luxury accomodation & transportation is available in the surrounding area. Details of these together with costs is available.

## Course Fees

60,000/- additional 18% GST (Students-Level 1)

1,20,000/- additional 18% GST (Students-Level 1 to Level 2)

1,35,000/- additional 18% GST (Corporate)

# Corporate Training

## Delivering Maximum Value



The course focuses on creating Industry ready engineers who have the benefit of practical hands-on knowledge.

Mostly at KCT, the focus has been on industries related to:

- Manufacturing • Automotive • Medical Devices

Consultations are held with companies to ensure courses are specific to company needs.

Some of the corporate trainings provided are for:

- Maruti Suzuki • Boston Scientific • Stryker • IFB Appliances • etc



# Infrastructure

## **CNC Machine:**

- VMC 5-axis machine (Hurco, USA)
- VMC 3-axis machine (Hurco, USA)
- CNC turning machine (Geedee, India)  
(LMW, India)

## **EDM & Wire cut:**

- EDM machine (Mitsubishi, Japan)
- Wire cut machine (Mitsubishi, Japan)

## **Quality & Metrology:**

- CMM (Brown & Sharpe, U.S.)
- Hardness tester (Metco, India)
- Vernier, Height Gauge, Micrometer

## **Conventional Machine:**

- Lathe (Weiler, Germany)  
(Panther, India)
- Milling (BFW, India) (Armstrong, US)
- Drilling (Eifco, India)
- Surface grinding (Ramanna, India)  
(Bhurji, India)
- Cylindrical grinding (Micromatic, India)
- Tool & Cutter grinding (HMT, India)
- Brinco machine (Metco, India)
- Polishing machine (Metco, India)
- Moulding machine
- Hardness testing machine

## **Welding:**

- Mig welding (Kemppi, Finland)
- Tig welding (Kemppi, Finland)
- Plasma cutting (Powermax 45, US)
- MMA (Hi Arc, US)
- Brazing

## **Design Lab:**

- 3-D design pro-e/ Creo, UGNX
- Pneumatic
- Hydraulics
- CNC/VMC
- Electrical
- PLC

## **Electrical Lab:**

- Industrial wiring
- House wiring
- Motors

## **Maintenance Lab:**

- Bearings, Assemblies
- Gear Box, Reduction Unit
- Cylinders
- Lubricant

## **Pneumatic & Hydraulics Lab:**

- Pneumatic (Festo, Germany) (SMC, Japan)
- Hydraulics (Bosch Rexroth, Germany)

## **Automation Lab:**

- Robot (Mitsubishi, Japan)
- PLC (Siemens, Germany)
- Industrial production system  
(Festo, Germany)
- BUS

## **Electronics Lab:**

- Micro processor and Micro controller
- Embedded system - Signal system
- Sensor and actuator
- Soldering - Etc

# Other Courses



<b>CNC Programming &amp; Machining</b>	<b>CMM Quality</b>	<b>Plastic &amp; Injection Moulding</b>	<b>Press Tool Technology</b>
<b>Hands on Engineering (Mechanical)</b>	<b>Graduate Engineer Training (Mechanical)</b>	<b>Electrical</b>	<b>Electronics</b>
<b>Welding &amp; Brazing</b>	<b>Pneumatics &amp; Hydraulics</b>	<b>etc</b>	



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Gurugram, Haryana-122050.

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