Tool & Technology Institute (TTI), BITAC

Ministries of industries

Government of the People's Republic of Bangladesh

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Website

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Technical training for the work that keeps industry moving.

Build practical skills on real industrial machines. Train in CNC, PLC, Mechatronics, CAD-CAM and more, then carry that experience into the workshop.





THE TTI, BITAC DIFFERENCES:

Train on the machines industry actually runs.

ONE TECHNOLOGY HUB:

Training meets production.

TTI brings training, testing, tooling and manufacturing together under one roof.

Address: 116 (Kha), Tejgaon Industrial Area, Dhaka-1208.

Students work in the same environment used by industry clients. The Haas VMC, CNC lathes, Wire-cut EDM and metrology labs are not classroom replicas. They are production-grade facilities that clients rent by the hour.

That changes how you learn. You read the machine, set up the job, program the operation and inspect the result in a working industrial setting.



TTI TRAINING PROGRAMS:

Choose your trade

From machine operation to digital design and industrial control, each program starts with real equipment and practical tasks.

MAKE
IT REAL

PROGRAM / 01

CNC Machining Center Operation with CAD & CAM



DURATION:
3–4 months

Qualification:
B.Sc / Diploma / HSC / SSC

Move from the drawing to a finished component. Learn blueprint reading and GD&T, then build parametric CAD models in SolidWorks and create CAM Tool Paths in Mastercam.

On the shop floor, operate Haas VMC and Lathe controllers, write G-code and M-code, and verify parts with CMM quality inspection.



PROGRAM / 02

Certificate Course in PLC

DURATION:

3–4 months

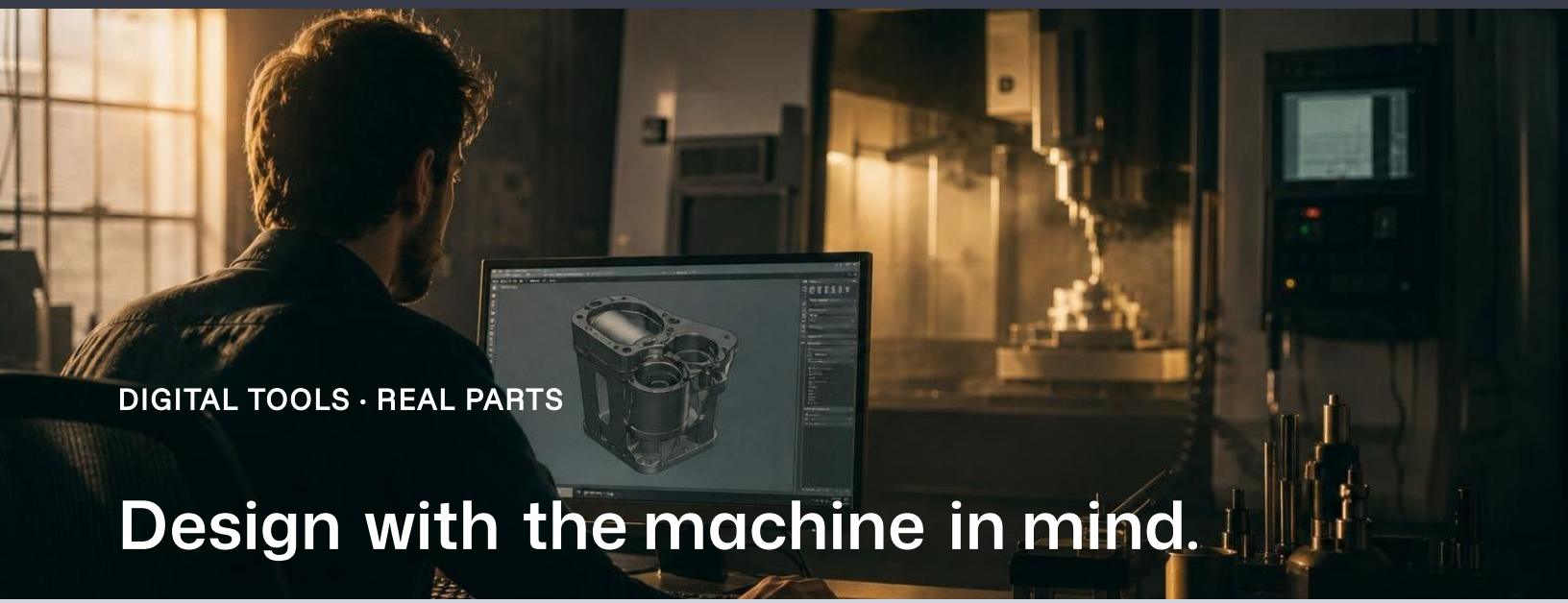
Qualification:
B.Sc / Diploma / HSC

Start with relay logic and panel wiring. Learn Siemens S7-1200 PLC hardware, I/O wiring and the practical discipline of building a control system correctly.

Then program in TIA Portal. Develop ladder logic, design HMI screens, control motor speed with a VFD, and tune PID loops for stable industrial processes.

PROGRAM / 03

CAD-CAM Design and Programming



DIGITAL TOOLS · REAL PARTS

Design with the machine in mind.

DURATION:
3-4 months

Develop advanced parametric 3D CAD models, freeform surfaces and reverse-engineered geometry. Turn design intent into a program the machine can execute.

Work with 5-axis simultaneous ontouring, edit custom post-
processors, and test motion in virtual kinematic simulation before the job reaches the shop floor.

Qualification:
B.Sc / Diploma / HSC / SSC



PROGRAM / 04

MECHATRONICS + CONTROL

Mechatronics and PLC

Learn how mechanical motion, fluid power and industrial controls work together. Build confidence with pneumatic and electro-pneumatic control systems, industrial hydraulics and power units.

Then connect the system. Study PLC architecture and programming, integrated mechatronics workstations and fieldbus communication.

DURATION:

3 months

Qualification:

B.Sc / Diploma / HSC

SHORTER, FOCUSED OPTIONS:

More specialized trades.

01 3D Printing (Additive Manufacturing)

Duration: 1 week. Learn DfAM, slicing, FDM/SLA printer setup and post-processing.

02 Wood Routing Machine Operation

Duration: 3 months. Build vector designs, 3D relief carving skills and CNC router setup knowledge.

03 Intermediate Automation & Control

Duration: 4–8 weeks. Go further with advanced PLC languages, SCADA/HMI and PID tuning.

04 Hydraulics & Pneumatics Engineering

Duration: 1–4 weeks. Cover fluid power fundamentals, circuit design and fault diagnosis.

FLEXIBLE TRAINING PATHS:

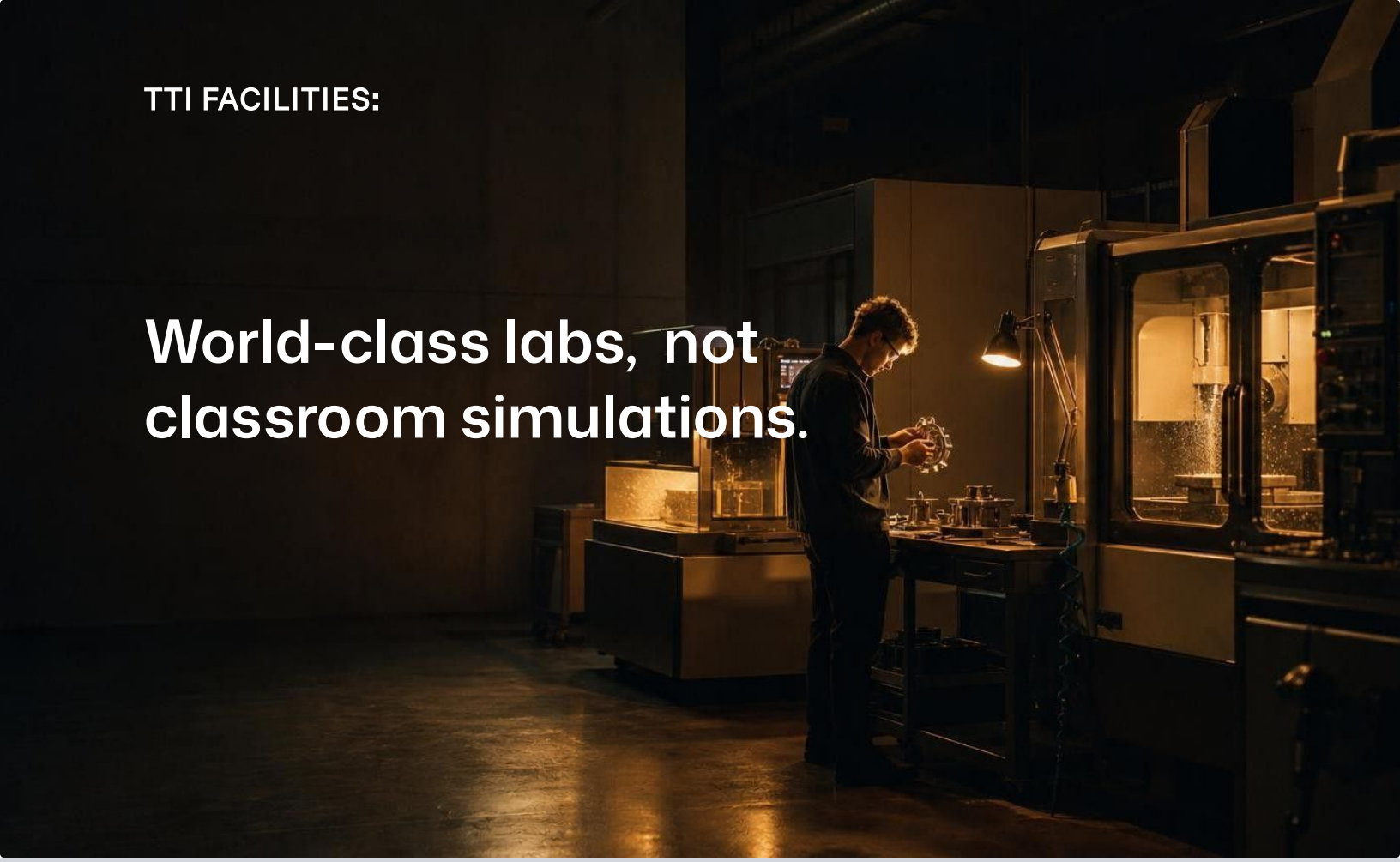
Programs built around your schedule and budget.

Classes run daily, 9:00 AM–4:00 PM. Eligible women, disadvantaged and tribal candidates can access ASSET-funded seats with free training, monthly stipends and travel allowance.

CATEGORY	DURATION	COURSE FEE
Master Trainer Training	24 weeks	TK. 15,000
Employment Training	12 weeks	TK. 10,000
Apprentice Program	24 weeks	TK. 500/day allowance
Up Scaling Training	4 weeks	TK. 5,000
Basic Training	2 weeks	TK. 2,000
Engineering Foundation Training	8 weeks	TK. 20,000
Short Course	1 week	TK. 5,000

START WITH THE FORMAT THAT FITS:

Choose a focused short course, a foundation program or a longer employment pathway.The work stays practical from day one.



TTI FACILITIES:

World-class labs, not classroom simulations.

CAPACITY:

64

High- Performance Workstations

Across 3 CAD-CAM labs, with 2 Mini Mills, 2 CNC turning centers and 16 industrial simulator stations.

The Hi-Tech Industrial Lab includes a Haas VMC, 3-Axis VF Series Milling, 4-Axis Haas Live Tooling Lathe, CHMER Wire- cut and Die-Sinking EDM,plus CNC surface and cylindrical grinding.