

- Joint research work for industrial problem as a part of Ph.D , post graduate and undergrad thesis
  - Triangular research for industry problem.
  - Final year project-based entrepreneur development program.
  - Joint sessional for latest technology like CNC, 3D metal P, PVD, heat treatment, hydraulics.
- L. Incubation center for young and new techno entrepreneur:
- Furnished office space including utilities and high-speed net.
  - Mentor support.
  - R & D facilities at subsidized price.
  - Marketing linkage.
- **Forward and Backward linkage by LEI.**
- Provide job order according to their capacity for part work of TTI innovated machine/spare part.
  - Availability of trained manpower.
- M. Startup business program:**
- Initially no need to invest any money for office and factory.
  - Use of TTI workshop, testing etc. facilities with normal charge as like own factory.
  - Support from other members, even can make business in consortium with other members.
- N. National on line new entrepreneur competition in** cooperation with BUET Entrepreneur Club every year. Final round at national TV channel sponsored by corporate.
- O. Entrepreneurship campaign** at Technical Universities and Diploma for final year students.
- P. Yearly Career Day at Polytechnic institute** for selection trainees and new entrepreneur.
- Q. Software of Self-Career Assessment of trainees:** Trainees can assess career by providing the answers to the questions asking by the software. Assessment report suggests optimum solution for selecting training type at TTI.
- R. Dormitory facilities:** 4 sharing 300 sft room. Seat capacity 40.
- S. International dormitory:** Single or twin sharing. Seat capacity 20
- T. Rooftop coffee shop:** Coffee shop at rooftop having green seating arrangement.
- U. Laundry facility:** Free washing machine and iron facility at top floor laundry room.
- V. Health club:** Health club having all standard instrument including steam bath facility.
- W. Motivational Session:** General assembly to exchange views including problems, inter connectivity, new ideas, supported by cultural presentation by the trainees at Saturday.
- X. Studio for U-tube and Facebook transmission** of e-learning, technology activities, talk show, success stories, talent hunting program, seminars, training information etc.
- Y. Technology Theatres & Technology Days:** TTI plays a key role as facilitator for technologists by organizing Technology Theatres to show case their newer technologies and inventions. TTI also conducts Technology Days for awareness of various upcoming technologies & recent trends.
- Z. Conference & Seminars** for knowledge sharing and networking platform in various technologies.
- AA. Knowledge Centre** is a special library for researchers, professionals, faculty and students.
- BB.** TTI regularly publishes a monthly E magazine “TTI, BITAC News”.

# স্বপ্নের জন্য প্রযুক্তি



**Tool & Technology Institute (TTI), BITAC, Ministry of Industries.**

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## Tool & Technology Institute (TTI), BITAC is for Holistic Support by latest technology to LEI

**About TTI, BITAC:** To facilitate the local LEI by technology including introducing latest technology, training, testing facility, common facility, R & D, foreign substitute works local development as well as attract young techno entrepreneur. TTI is being established in 2020 under BITAC, Ministry of industries by an annual development project of government of Bangladesh.

**Target:** to increase national technical capacity in manufacturing sector and thus reduce foreign reliance to save and earn foreign currency as well as increase job opportunity.

**Core activities:** R & D, Master trainer and Hi-tech training, testing facility, common facility and incubation centre for young and new entrepreneur, university – industry linkage, technology development consultancy, support LEI for foreign reliance work local development, expert database.

### A. Main Training Program:

Serial	Name of the course	Field	week	Course no	Desire no.	Qualification	Residential (R)/Non-Res (NR)
1.	Master Trainer Training (MTT)	CAD CAM (MTTC)	24	2	10	B.Sc. Engg	R/NR
		Mechatronics (MTTM)					
		Hydraulics (MTTH)					
2.	Employment Training (ET)	CNC Lathe (ETCL)	12	4	20	Diploma Engg	R
		CNC Milling (ETCM)					
		Mechatronics (ETM)					
		Hydraulics (ETH)					
3.	Apprentice Program (AT)	CAD CAM (ATC)	24	2	20	Diploma	R/NR
		Mechatronics (ATM)			10		
		Hydraulics (ATH)			10		
4.	Up Scaling Training (UST)	CAD CAM (USTC)	4	1	20	B.Sc. Engg, Diploma, Science background	R/NR
		Mechatronics (USTM)			10		
		Hydraulics (USTH)			10		
5.	Basic training (BT)	General Science (BTGM)	2	1	25	Diploma, Science	R/NR
6.	Engineering Foundation Training (EFT)	ME, EEE and Equivalent	8	2	20	B.Sc. Engg,	R
7.	Customize Training (CT)	ME, EEE and Equivalent	-	4	20	B.Sc. Engg, Diploma, Science background	R/NR
8.	Short Course (SC)	Heat T, 3D P, CMM, CAD CAM, Mechat, Hyd	1	5	15	B.Sc. Engg, Diploma, Science background	R/NR

**B. On line Registration subsequently On line Examination in cooperation with a2i.**

**C. Common Facilities (Any LEI can take the following services from TTI at cost price):**

1. CNC Machining Facilities including 5 axis machines.
2. Automatic Heat Treatment (first ever in Bangladesh).

3. Physical Vapor Deposition (PVD) (first ever in Bangladesh).
4. 3D metal printing (first ever in Bangladesh).
5. Coordinate Measuring Machine (CMM) (first ever in Bangladesh).
6. Raw material bank: Ready stock of different type of alloy steel, SS shaft, plate, bar, sheet for making die-mold, auto parts etc. available. Any entrepreneur can purchase at cost price.
7. Cutting tool manufacture machine (first ever in Bangladesh): International standard cutting tools of CNC machine are being made locally for private sector LEI at cost price.

**D. Testing (Any LEI can take the following services from TTI at cost price):**

1. Spectrometer- For ferrous, non-ferrous metal composition analysis.
2. CNC hardness tester.
3. Digital microscope for micro structure analysis.
4. Digital surface film thickness gauge.
5. Metrology instruments.

**E. Research & Development (R & D) program** are to build indigenous technologies and conduct country specific studies for Import Substitute Products in collaboration with other light engineering private organizations, synergizing the strength of the consortia. The projects are funded by industry like in case of sponsored projects, or are supported by government like in case of projects of national importance or are internally funded for specific technology development.

**F. By R & D Capital machinery design and manufacture:** TTI operates R & D work for capital machinery local development in partnership with private LEI, taking consultancy support if required from expert panel. TTI transfers this technology to private sector.

**G. Foreign reliant technical work of industry, plant and project solution locally in collaboration** with technical universities, utilizing local and nonresident Bangladeshi (NRB) experts and coordinating all capacity of local private sector manufacturing abilities.

**H. Expert database for local Technology solution** of foreign reliant problems, designs, processes.

**I. LEI database with capacity assessment** to relate with work from TTI and industries directly.

**J. Main supports to LEI from TTI (MoU between TTI and BIEOA):**

- Testing at reasonable price.
- Common facilities of Heat Treatment, CNC machine, PVD, CMM, Metrology and others.
- Training in advanced technologies like CAD, CAM, Mechatronics, Hydraulics, Pneumatics etc.
- Provide job order to BIEOA members according to their capacity for part work of TTI.
- Raw material bank of alloy steel.
- Cutting tool of CNC machine local manufacture according to the requirement of LEI.

**K. Main supports to Technical university from TTI (MoU between TTI and Technical University):**