

# Training Calendar: 2022-2023



Bangladesh Industrial Technical Assistance Centre (BITAC)  
116 (Kha), Tejgaon Industrial Area  
Dhaka-1208.

	Contents	Page
1	<b>INTRODUCTION</b>	3
1.1	Background	3
1.2	Vision & Mission of BITAC	3
1.3-1.4	Advisory Committee & Editorial Committee	4
1.5-1.6	Course Conducting Committee & Governing Body of BITAC	4
2	<b>SCHEDULE OF THE TECHNICAL TRAINING PROGRAM, BITAC, DHAKA.</b>	5
2.1	Long Term Technical Training Program (Regular)	5
2.2	Long Term Technical Training Program (Customized)	5
2.3	Mid Term Technical Training Program (Customized)	6
2.4	Technical Training Program Addressing 4IR (Customized)	6
2.5	Short Term Technical Training Program (Regular)	6
2.6	Short Term Technical Training Program (Customized)	6
2.7	Industrial Attachment Technical Training Program	6
3	<b>LONG TERM TECHNICAL TRAINING PROGRAM (REGULAR), BITAC, DHAKA.</b>	7
3.1	Machine Shop	7
3.2	Electrical Maintenance	8
3.3	Welding	9
3.4	Automobile & Auto-Electricity	10
3.5	Machine Maintenance	11
3.6	Foundry & Pattern Making	12
4	<b>LONG TERM TECHNICAL TRAINING PROGRAM (CUSTOMIZED), BITAC, DHAKA.</b>	13
4.1	Heat Treatment	13
4.2	Refrigeration and Air Conditioning	14
5	<b>Training Program Under ASSET Project (Customized)</b>	15
6	<b>MID TERM TECHNICAL TRAINING PROGRAM (CUSTOMIZED), BITAC, DHAKA.</b>	16
6.1	CNC Lathe Operation and Practice	16
6.2	CNC Milling Operation and Practice	17
6.3	CNC Machining Center Operation and Practice	18
6.4	Die Sink EDM & Wire Cut EDM Operation & Practice	19
6.5	Plastic Technology	20
6.6	Auto CAD (2D&3D)	21
6.7	Solid Work	22
7	<b>Technical Training Program Addressing 4IR (Customized)</b>	23
7.1	Computer Aided Engineering (CAE)	23
7.2	3D Printing	24
7.3	Cloud Based CNC Machining Centre Operation	25
8	<b>SHORT TERM TECHNICAL TRAINING PROGRAM (REGULAR), BITAC, DHAKA.</b>	26
	Programmable Logic Controller (PLC)	26
9	<b>SHORT TERM TECHNICAL TRAINING PROGRAM (CUSTOMIZED), BITAC, DHAKA.</b>	27
	Boiler Operation & Maintenance	27
10	<b>Skills for Employment Investment Program (SEIP), BITAC, Dhaka, Khulna &amp; Bogura</b>	28
10.1	Machine Shop	28
10.2	Electrical Installation Maintenance	29
10.3	Welding	30
10.4-10.9	<b>Skills for Employment Investment Program (SEIP), BITAC, Chottogram &amp; Chandpur</b>	31-35
11	<b>Self-Employment and Poverty Alleviation (SEPA), Phase-2, BITAC.</b>	37
12	<b>Industrial Attachment Technical Training Program, BITAC.</b>	38
13	<b>Training Program, BITAC, Chattogram.</b>	39
14	<b>Training Program, BITAC, Chandpur, Khulna &amp; Bogura</b>	40
15	<b>Tool &amp; Technology Institute (TTI), BITAC, Dhaka-1208.</b>	40
15.1	CAD/CAM Milling	41
15.2	CAD/CAM Lathe	42
15.3	Mechatronics	43
15.4	Hydraulics & Pneumatics	44

## 1 INTRODUCTION

### 1.1 Background

Bangladesh Industrial Technical Assistance Centre otherwise known as BITAC is the Successor to Pakistan Industrial Technical Assistance Centre (PITAC). It Was Renamed BITAC after the Independence of Bangladesh. BITAC established in 1962 by merging two other productivity oriented public sector organizations namely IRDC and PIPS. With the establishment of BITAC Practice, oriented activities for productivity promotion and improvement of productivity were create through its laboratory and workshop support. The main objective of BITAC is therefore, promotion of the national economy through development of product, process and skilled manpower, BITAC has five centers in Bangladesh at Dhaka, Chattogram, Chandpur, Khulna, and Bogura.

### 1.2 Vision & Mission

#### OUR VISION

- To become the best among all technical skill human resource developers & industrial spares manufactures in all aspects.
- Empower employees for shouldering higher responsibilities resulting in job enrichment and job satisfaction.
- Undertaking various research and development program has to explore the new and innovative manufacture and use of spares parts.

#### OUR MISSION

- To upgrade the skill of the industrial personnel in technical and managerial fields.
- To disseminate modern technical know-how among industrial personnel through seminars, group discussions, demonstrations, publications, film show etc.
- To extend consulting services to industrial organization and industries mainly in the private sector.
- To organize program for capacity buildup in SME Sector.
- To promote productivity consciousness in the people by encouraging them to form Productivity Associations in industrial Centers etc.
- To co-operate with international and national organizations and agencies in activities for increasing industrial productivity.
- To adopt such measures, take such steps, and do all such things as may be conducive to the promotion of cordial relations between the Centre and persons interested in the objectives of the Centre.
- To secure the recognition of the center in Bangladesh and other foreign countries.
- In conjunction with the upgrading program and to make it more effective, the BITAC shall:
  - ✓ Assist in the design and development of jigs & fixtures gauges, mold, die, punches, tools and products (proto-type) for industries and agriculture.
  - ✓ Develop processes and tools etc, to help industries in improving the quality, increasing production, reducing cost and utilizing indigenous raw materials and to increase the scope of indigenous manufacture.
  - ✓ Conduct productivity studies in such selected plants as may be determined and recommend ways and means for improvement.
  - ✓ To do all such other lawful things as the center may think identical or conducive to the attainment of any or all the objectives of the center mentioned above.

### 1.3 Advisory Committee

Chairperson	: Anwar Hossain Chowdhury Director General BITAC.
Member	: Md. Abu Sayeed Khan Director (Training) BITAC. : Md. Fazlul Karim Additional Director BITAC, Dhaka.

### 1.4 Editorial Committee

Chairperson	: Md. Abu Sayeed Khan Director (Training)
Member	: S M Inamul Hossain Executive Engineer : Md. Masum Zakaria Assistant Engineer : Md. Hasib Mahmud Assistant Engineer

### 1.5 Course Conducting Committee

Course Advisor	: Director General BITAC.
Crouse Director	: Director (Training) BITAC.
Crouse Coordinator	: Executive Engineer Training Division BITAC, Dhaka.

### 1.6 Governing Body of BITAC

Rank	Organization	Designation at Governing Body
Secretary	Ministry of Industries	Chairman
Additional Secretary or Joint Secretary (BITAC Wing)	Ministry of Industries	Member
Joint Secretary	Finance Division (Ministry of Finance)	Member
Director General	Directorate of Technical Education	Member
Director General	Directorate of Labor & Manpower	Member
Director General	Bureau of Manpower, Employment And Training	Member
Member	National Skill Development Authority	Member
Executive Member	Bangladesh Investment Development Authority	Member
President	Bangladesh Engineering Industry Owners Association	Member
President	Federation of Bangladesh chambers of commerce and Industries	Member
Director General	Bangladesh Industrial Technical Assistance Centre (BITAC)	Member Secretary

## 2 SCHEDULE OF THE TECHNICAL TRAINING PROGRAM, BITAC, DHAKA.

### 2.1 Long Term Technical Training Program (Regular).

Sl. No.	Name of the course	Course No.	Duration	Practicing Weeks	No. of seats
1	Machine Shop	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	25
2	Electrical Maintenance	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	25
3	Welding	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	25
4	Machine Maintenance	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	25
5	Automobile & Auto-electricity	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	25
6	Foundry & Pattern Making	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	25

### 2.2 Long Term Technical Training Program (Customized).

Sl. No.	Name of the Course	Duration	Practicing Hours	No. of seats
1	Machine Shop	360 Hours	360	25
2	Electrical Maintenance			
3	Welding			
4	Machine Maintenance			
5	Refrigeration & Air Conditioning			20
6	Automobile & Auto-electricity			10
7	Foundry & Pattern Making			5
8	Heat Treatment			

### 2.3 Mid Term Technical Training Program (Customized).

Sl. No.	Name of the Course	Practicing Hours	No. of seats
1	Solid Works	210	20
2	Auto CAD (2D & 3D)		20
3	Plastic Technology		06
4	CNC Lathe Operation & Practice	140	04
5	CNC Milling Operation & Practice		
6	CNC Machining Center Operation & Practice		
7	Die Sink EDM & Wire Cut EDM Operation & Practice		

### 2.4 Technical Training Program Addressing 4IR (Customized)

Sl. No.	Name of the Course	Practicing Hours	No. of seats
1	Computer Aided Engineering (CAE)	140	05
2	3D Printing		
3	Cloud Based CNC Machining Centre Operation		

### 2.5 Short Term Technical Training Program (Regular).

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats
	Programmable Logic Controller (PLC)	62 63 64 65 66	17 Jul 2022 to 28 Jul 2022 18 Sep 2022 to 29 Sep 2022 13 Nov 2022 to 24 Nov 2022 22 Jan 2023 to 02 Feb 2023 07 May 2023 to 18 May 2023	70	20

### 2.6 Short Term Technical Training program (Customized).

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats
	Boiler Operation & Maintenance	42 43 44 45 46 47	21 Aug 2022 to 25 Aug 2022 16 Oct 2022 to 20 Oct 2022 11 Dec 2022 to 15 Dec 2022 12 Feb 2023 to 16 Feb 2023 12 Mar 2023 to 16 Mar 2023 04 Jun 2023 to 08 Jun 2023	35	20

### 2.7 Industrial Attachment Technical Training Program (As per stakeholders desire)

### 3. LONG TERM TECHNICAL TRAINING PROGRAM (REGULAR), BITAC, DHAKA.

#### 3.1 Machine Shop

Name of the Trade	:	Machine Shop [Regular]
Duration	:	14 Weeks
Date	:	03 Jul 2022 to 06 Oct 2022, 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 and 07 May 2023 to 10 Aug 2023; For course no: 166, 167, 168 and 169 respectively.
Nomination deadline	:	30 Jun 2022, 06 Oct 2022, 12 Jan 2023 and 04 May 2023; For course no: 166, 167, 168 and 169 respectively.
Number of Seats	:	25
Trade fee	:	5,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	:	<p>Square, Acme, Buttress and trapezoid thread cutting, Form turning with Form tool and by combined longitudinal and Cross feed, Copy turning; Cam shaft, Crank shaft turning; Dee hole drilling, boring and Reaming to sizes, Gear Cutting; Helical, Bevel and worm gear; Cam milling; Grinding on punch shaft to standard dimensional accuracy and surface finishing; Effect to temperature of surface finish.</p> <ul style="list-style-type: none"> <li>• Understanding of mechanical engineering drawing;</li> <li>• Informing different machining parameters;</li> <li>• Identification on different metals.</li> <li>• Introducing design of tools/cutters and practicing;</li> <li>• Make Capable of measuring using different measuring instrument;</li> <li>• Awareness of safety</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Technical Drawing</li> <li>• Basic Tool Design</li> <li>• Safety &amp; Maintenance</li> <li>• Shop Theory</li> <li>• Measuring Tools, Fits &amp; Tolerances</li> <li>• Related Math.</li> <li>• Engineering Materials</li> <li>• Heat-Treatment</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

#### 3.2 Electrical Maintenance

Name of the Trade	:	Electrical Maintenance [Regular]
Duration	:	14 Weeks
Date	:	03 Jul 2022 to 06 Oct 2022, 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 and 07 May 2023 to 10 Aug 2023; For course no: 166, 167, 168 and 169 respectively.
Nomination deadline	:	30 Jun 2022, 06 Oct 2022, 12 Jan 2023 and 04 May 2023; For course no: 166, 167, 168 and 169 respectively.
Number of Seats	:	25
Trade fee	:	8,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	:	<ul style="list-style-type: none"> <li>• To develop skill in domestic and industrial wiring;</li> <li>• To make control circuit and detecting faults and its maintenance;</li> <li>• To identify various electronic components and understanding electronic circuit and making circuit.</li> <li>• Detecting machine faults, machine winding and is repairing and maintenance;</li> <li>• Able of measure using various measuring tools and connect measuring instrument to a circuit.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Electrical Wiring</li> <li>• Control System</li> <li>• Industrial Electronics</li> <li>• Electrical Machine</li> <li>• Measuring Tools &amp; Electrical Instruments.</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

### 3.3 Welding

Name of the Trade	: Welding [Regular]
Duration	: 14 Weeks
Date	: 03 Jul 2022 to 06 Oct 2022, 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 and 07 May 2023 to 10 Aug 2023; For course no: 166, 167, 168 and 169 respectively.
Nomination deadline	: 30 Jun 2022, 06 Oct 2022, 12 Jan 2023 and 04 May 2023; For course no: 166, 167, 168 and 169 respectively
Number of Seats	: 25
Trade fee	: 7,500/-
Target Group	: Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	: <ul style="list-style-type: none"> <li>• Introduction to different types of welding processes;</li> <li>• Identification of different metals;</li> <li>• Preparation of different types of welding joints;</li> <li>• Welding practice at positions;</li> <li>• Introducing different welding Parameter</li> <li>• Skill development in arc welding technique and gas welding technique;</li> <li>• Detecting welding defects and trouble shooting</li> <li>• Designing and making welding jigs fixtures;</li> <li>• Learning welding symbols;</li> <li>• Make capable of inspection and testing of weld joints;</li> <li>• Safety awareness.</li> </ul>
Course Contents	: <ul style="list-style-type: none"> <li>• Welding Theory on Arc Welding</li> <li>• Heat Treatment</li> <li>• Gas Welding/Cutting</li> <li>• Safety &amp; Maintenance</li> <li>• Engineering Materials</li> <li>• Technical Drawing Reading</li> <li>• Welding Hand tools/Measuring Tools.</li> </ul>
Training Methodology	: <ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	: <ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

### 3.4 Automobile & Auto-electricity

Name of the Trade	: Auto-electricity [Regular]
Duration	: 14 Weeks
Date	: 03 Jul 2022 to 06 Oct 2022, 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 and 07 May 2023 to 10 Aug 2023; For course no: 166, 167, 168 and 169 respectively.
Nomination deadline	: 30 Jun 2022, 06 Oct 2022, 12 Jan 2023 and 04 May 2023; For course no: 166, 167, 168 and 169 respectively.
Number of Seats	: 10
Trade fee	: 5,000/-
Target Group	: Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	: <ul style="list-style-type: none"> <li>• To introduce hand tools, machine tools and different measuring instruments;</li> <li>• To make capable of major overhauling of auto engine; electrical &amp; electronic parts.</li> <li>• Troubles shooting and corrective measures;</li> <li>• Dismantling and assembling of gear box and clutch system;</li> <li>• To acquaint the participants with auto parts machining, denting and painting;</li> <li>• Repairing and maintenance of suspension and break system;</li> <li>• Selecting appropriate blue oil, fuel &amp; tires for different types vehicles.</li> </ul>
Course Contents	: <ul style="list-style-type: none"> <li>• Basic Engine</li> <li>• Fundamental-Electrical and electronic system</li> <li>• Power Transmission System</li> <li>• Auto-Parts Machining, Denting and painting</li> <li>• Measuring Tools</li> <li>• Suspension, Break, Fuel &amp; Fuel Injection Systems.</li> </ul>
Training Methodology	: <ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> <li>• Model demonstration</li> <li>• Team Work</li> <li>• Report writing</li> </ul>
Evaluation System	: <ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

### 3.5 Machine Maintenance

Name of the Trade	:	Machine Maintenance [Regular]
Duration	:	14 Weeks
Date	:	03 Jul 2022 to 06 Oct 2022, 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 and 07 May 2023 to 10 Aug 2023; For course no: 166, 167, 168 and 169 respectively.
Nomination deadline	:	30 Jun 2022, 06 Oct 2022, 12 Jan 2023 and 04 May 2023; For course no: 166, 167, 168 and 169 respectively.
Number of Seats	:	25
Trade fee	:	5,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	:	<ul style="list-style-type: none"> <li>• Introduction to different machine tools such as lathe machine, milling machine, grinding machine, boring machine, planer machine, drill machine, hydraulic and mechanical press machine, rolling machine, shear machine;</li> <li>• Acquainting different types of mechanical compound and driving System;</li> <li>• Understanding of blue print reading;</li> <li>• Make capable of disassembly and assembly of different machine tools and components;</li> <li>• Replacement of lubricants, cutting oil, O-ring, gasket etc;</li> <li>• Awareness of safety and maintenance.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Machine Elements</li> <li>• Mechanical Component and Driving System</li> <li>• General Maintenance</li> <li>• Technical Drawing Reading</li> <li>• Hand tools/Measuring Tools</li> <li>• Safety &amp; Maintenance.</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

### 3.6 Foundry & Pattern Making

Name of the Trade	:	Foundry Practice [Regular]
Duration	:	14 Weeks
Date	:	03 Jul 2022 to 06 Oct 2022, 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 and 07 May 2023 to 10 Aug 2023; For course no: 166, 167, 168 and 169 respectively.
Nomination deadline	:	30 Jun 2022, 06 Oct 2022, 12 Jan 2023 and 04 May 2023; For course no: 166, 167, 168 and 169 respectively.
Number of Seats	:	05
Trade fee	:	5,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	:	<ul style="list-style-type: none"> <li>• To operate induction furnace, cupola furnace, tilting furnace, pit furnace, coke bed furnace, sand mixing machine, overhead crane, core drier, and use different hand tools etc.;</li> <li>• Understanding blue print reading</li> <li>• Preparation of sand for mold and core making,</li> <li>• Making mold/core, pasting, metal melting, fettling etc.;</li> <li>• Identifying the different metals and alloys;</li> <li>• Melting different metals, handling the liquid metal and purring the liquid metal into the mold cavity;</li> <li>• Taking different measurement using different measuring instruments;</li> <li>• Introducing the heat treatment processes.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Pattern Making</li> <li>• Sand mold Preparation &amp; Practices.</li> <li>• Different types of furnace</li> <li>• Melting Processes</li> <li>• Safety &amp; Maintenance</li> <li>• Engineering Materials</li> <li>• Technical Drawing &amp; Reading</li> <li>• Welding Hand tools/Measuring Tools.</li> <li>• Heat-Treatment</li> <li>• Casting processes</li> <li>• Alloying of Metals</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>



#### 4. LONG TERM TECHNICAL TRAINING PROGRAM (CUSTOMIZED), BITAC, DHAKA.

##### 4.1 Heat Treatment

Name of the Trade	:	Heat Treatment [Customized]
Duration	:	12 Weeks (360 Hours)
Date	:	As per Discussion
Nomination deadline	:	As per Demand.
Number of Seats	:	05
Trade fee	:	6,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	:	<ul style="list-style-type: none"> <li>• Demonstration and practicing on Annealing Normalizing, Hardening &amp; Tempering.</li> <li>• Introduction to different types of heat treatment furnaces;</li> <li>• Acquainting with different cooling media used for different metals and their alloys;</li> <li>• Identification of different type of metals;</li> <li>• Demonstration of quenching technique;</li> <li>• Practicing hardness measurement;</li> <li>• Preparing carburizing compound;</li> <li>• Demonstration on packaging of job into carburizing compound.</li> <li>• Awareness of safety.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Safety &amp; Maintenance</li> <li>• Engineering materials</li> <li>• Fundamental of Heat Treatment</li> <li>• Furnace Design</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Written test</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

##### 4.2 Refrigeration & Air Conditioning

Name of the Trade	:	Refrigeration & Air Conditioning [Customized]
Duration	:	12 Weeks (360 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	20
Trade fee	:	5,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Trade Objects	:	<ul style="list-style-type: none"> <li>• To make capable of repairing of domestic and industrial Air Conditioning system;</li> <li>• To make control circuit and detecting faults and its maintenance;</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Fundamental of Refrigeration and air Conditioning</li> <li>• Control System</li> <li>• Brazing and soldering</li> <li>• Troubleshooting</li> <li>• Operation And Maintenance</li> <li>• Assembly And Dismantling of Components</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

## 5 Accelerating and Strengthening Skills for Economic Transformation (ASSET)

**BITAC, Dhaka, Chattogram, Khulna & Bogura.**

S.I No.	Name of the Trade	Time Schedule	No. of Seats/ Trade/Batch	Course Fee
3	Boiler Operation & Maintenance	As Per Discussion	15	Free
Target Group		Candidate having SSC or equivalent certificate along with technical experience, TTC/VTI certificate holders, Diploma in Engineering.		

**BITAC, TTI**

S.I No.	Name of the Trade	Time Schedule	No. of Seats/ Trade/Batch	Course Fee
1	CAD/CAM Milling	As Per Discussion	15	Free
2	CAD/CAM Lathe			
3	Mechatronics			
4	Hydraulics & Pneumatics			
Target Group		Candidate having SSC or equivalent certificate along with technical experience, TTC/VTI certificate holders, Diploma in Engineering.		

## 6. MID TERM TECHNICAL TRAINING PROGRAM (CUSTOMIZED), BITAC, DHAKA.

### 6.1 CNC Lathe Operation & Practice

Name of the Trade	:	CNC Lathe Operation & Practice [Customized]
Duration	:	04 Weeks (140 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Trade fee	:	5,000/-
Target Group	:	BSc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Trade Objects	:	<ul style="list-style-type: none"> <li>In depth exploration of ISO as related to lathe operation;</li> <li>Detail lessons ranging from basic advanced programming; techniques using ISO and a representative lathe CNC control (Fagor),</li> <li>Hands on machining practice under real-life shop Environment.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>Introduction &amp; Basic programming</li> <li>ISO Code (G &amp; M code)</li> <li>Machine parameter &amp; Function.</li> <li>Different operation &amp; ramming.</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Observation</li> <li>Question and answer</li> <li>Individual exercise</li> <li>Oral test</li> <li>Overall performance.</li> </ul>



## 6.2 CNC Milling Operation & Practice

Name of the Trade	:	CNC Milling Operation & Practice [Customized]
Duration	:	04 Weeks (140 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Trade fee	:	5,000/-
Target Group	:	B.Sc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Trade Objects	:	<ul style="list-style-type: none"> <li>• In depth exploration of ISO as related to milling;</li> <li>• Detail Lessons ranging from basic to advanced programming; techniques using ISO and a representative milling CNC control (Haidenhein TNC-310);</li> <li>• Hands on machining practice under real-life shop environment</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Introduction &amp; Basic programming.</li> <li>• ISO Code (G &amp; M code)</li> <li>• Machine parameter &amp; Function.</li> <li>• Different operation &amp; ramming.</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

## C 6.3 CNC Machining Center Operation & Practice

Name of the Trade	:	CNC Machining Center Operation & Practice
Duration	:	04 Weeks (140 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Trade fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Trade Objects	:	<ul style="list-style-type: none"> <li>• In depth exploration of ISO as related to milling and drilling oriented operations;</li> <li>• Detail Lessons ranging from basic to advanced programming; techniques using ISO and a representative multi-axis machining center CNC control (Fanuc-21); (Haidenhein TNC-310);</li> <li>• Hands on machining practice under real-life shop Environment.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Introduction &amp; Basic programming.</li> <li>• ISO Code (G &amp; M code)</li> <li>• Machine parameter &amp; Function.</li> <li>• Different operation &amp; ramming.</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

## 6.4 Die Sink EDM & Wire Cut EDM Operation & Practice

Name of the Trade	:	Die Sink EDM & Wire Cut EDM Operation & Practice
Duration	:	04 Weeks (140 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Trade fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Trade Objects	:	<ul style="list-style-type: none"> <li>Understanding of EDM process and factors involved;</li> <li>Rendering knowledge on die-sink &amp; wire cut EDM machines, their components and control systems;</li> <li>Acquaintance with electrode (Properties, materials and machining), dielectric fluids (Properties, function);</li> <li>Programming with ISO codes and a representative control language (Robostar);</li> <li>Use of CAM and Simulation to facilitate programming;</li> <li>Making workable mold cavities, dies and punches using die-sink &amp; wire-cut EDM process.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>Basic programming (wire cut) &amp; operation</li> <li>Basic operation</li> <li>Application operation</li> <li>NC programming.</li> <li>My cam (software).</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Observation</li> <li>Question and answer</li> <li>Individual exercise</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

## 6.5 Plastic Technology

Name of the Trade	:	Plastic Technology
Duration	:	04 Weeks (140 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	05
Trade fee	:	4,000/-
Target Group	:	Entrepreneur, technical staff working in the Plastic processing industries, TTC/VTI, Disabilities.
Trade Objects	:	<ul style="list-style-type: none"> <li>To operate injection molding machine, compression molding machine, vacuum forming machine, extruder machine, blow molding and the plastic machinery;</li> <li>Usage and maintenance of plastic mold;</li> <li>Selection of appropriate plastic materials for products;</li> <li>Maintenance and controlling of plastic machinery;</li> <li>Testing procedure of plastic.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>Plastic materials</li> <li>Plastic Testing</li> <li>Plastic Processing machinery</li> <li>Mold making</li> <li>Heat Treatment</li> <li>Electroplating</li> <li>Machine Control System and Maintenance.</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Case study</li> <li>Industrial visit.</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Observation</li> <li>Question and Answer</li> <li>Individual exercise</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

### 6.6 Auto CAD (2D & 3D)

Name of the Trade	:	Auto CAD (2D & 3D)
Duration	:	06 Weeks (210 Hours)
Date	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	20
Trade fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering, TTC/ HSC (Voc)
Trade Objects	:	<ul style="list-style-type: none"> <li>● Understanding and practicing of working and assembly drawing;</li> <li>● Introducing the importance of computer aided design (CAD);</li> <li>● Male capable of computer aided designing.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● Mechanical Drafting</li> <li>● Auto CAD-2D</li> <li>● Auto CAD-3D</li> <li>● Component drawing</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Class-room lecture</li> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Individual exercise</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

### 6.7 Solidwork

Name of the Trade	:	Solid work [Customized]
Duration	:	06 Weeks (210 Hours)
Date	:	As per Discussion.
Nomination Deadline	:	As per Demand.
Number of Seats	:	20
Trade fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering, TTC/ HSC (Voc)
Trade Objects	:	<ul style="list-style-type: none"> <li>● Understanding and practicing of working and assembly drawing;</li> <li>● Introducing the importance of computer aided design (CAD);</li> <li>● Learn about innovation of design and design modification.</li> <li>● Know about the application of solid works drawing</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● Mechanical Drafting</li> <li>● Solid works-2D</li> <li>● Solid works-3D</li> <li>● Assembly drawing</li> <li>● Special Fixture drawing</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Individual exercise</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Individual exercise</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

## 7 Technical Training Program Addressing 4IR (Customized)

### 7.1 Computer Aided Engineering (CAE)

Name of the Course	:	Computer Aided Engineering (CAE)
Duration	:	4 Weeks (140 Hours)
Date	:	As per discussion
Nomination Deadline	:	As per demand
Number of Seats	:	5
Course Fee	:	7500/-
Target Group	:	SSC or equivalent certificate with technical experience and computer literacy
Course Objects	:	<ul style="list-style-type: none"> <li>• To design 3D object for CNC manufacturing using CAD software</li> <li>• To operate the VMC with all recommended settings for manufacturing 3D object</li> <li>• To set up static stress simulation</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• 3D Part modelling using Solidworks</li> <li>• Generating CNC toolpath using MasterCAM</li> <li>• CNC Programming for vertical machining centre (VMC)</li> <li>• Introduction to engineering simulation</li> <li>• Introduction to Cloud based CAD software (Fusion 360)</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Classroom lecture</li> <li>• Group Discussion</li> <li>• Practical Exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Attendance</li> <li>• Oral Question and Answer</li> <li>• Individual Exercise</li> <li>• Written Test</li> <li>• Portfolio</li> </ul>

### 7.2 3D Printing

Name of the Course	:	3D Printing
Duration	:	4 Weeks (140 Hours)
Date	:	As per discussion
Nomination Deadline	:	As per demand
Number of Seats	:	5
Course Fee	:	5000/-
Target Group	:	SSC or equivalent certificate with technical experience and computer literacy
Course Objects	:	<ul style="list-style-type: none"> <li>• To design 3D object for 3D Printing in CAD software</li> <li>• To install 3D Printer and all necessary accessories</li> <li>• To troubleshoot common 3D Printing issues</li> <li>• To use slicing software and learn G-code for 3D printers</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• 3D Part modelling using Solidworks</li> <li>• Detailed discussion on slicing software for FDM 3D Printers like Ultimaker Cura and Simplify 3D</li> <li>• Hands-on practice on 3D Printer installation, maintenance and operation</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Classroom lecture</li> <li>• Group Discussion</li> <li>• Practical Exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Attendance</li> <li>• Oral Question and Answer</li> <li>• Individual Exercise</li> <li>• Written Test</li> <li>• Portfolio</li> </ul>

### 7.3 Cloud Based CNC Machining Centre Operation

Name of the Course	:	Cloud Based CNC Machining Centre Operation
Duration	:	4 Weeks (140 Hours)
Date	:	As per discussion
Nomination Deadline	:	As per demand
Number of Seats	:	5
Course Fee	:	7500/-
Target Group	:	SSC or equivalent certificate with technical experience and computer literacy
Course Objects	:	<ul style="list-style-type: none"> <li>• To design a 3D object for CNC manufacturing in CAD software</li> <li>• To operate the VMC with all recommended settings for manufacturing a 3D object</li> <li>• To use production monitoring software to track factory production and efficiency.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• 3D Part modelling using Solidworks</li> <li>• Generating CNC toolpath using MasterCAM</li> <li>• CNC Programming for vertical machining centre (VMC)</li> <li>• Introduction to cloud-based production monitoring software for CNC</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Classroom lecture</li> <li>• Group Discussion</li> <li>• Practical Exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Attendance</li> <li>• Oral Question and Answer</li> <li>• Individual Exercise</li> <li>• Written Test</li> <li>• Portfolio</li> </ul>

### 8. SHORT TERM TECHNICAL TRAINING PROGRAM (REGULAR), BITAC, DHAKA. Programmable Logic Controller (PLC)

Name of the Trade	:	Programmable Logic Controller (PLC) [Regular]
Duration	:	02 Weeks (70 Hours)
Date	:	17 Jul 2022 to 28 Jul 2022, 18 Sep 2022 to 29 Sep 2022, 13 Nov 2022 to 24 Nov 2022, 22 Jan 2023 to 02 Feb 2023, 07 May 2023 to 18 May 2023; For course no: 62, 63, 64, 65 and 66 respectively.
Nomination Deadline	:	14 Jul 2022, 15 Sep 2022, 10 Nov 2022, 19 Jan 2023, 04 May 2023; For course no: 62, 63, 64, 65 and 66 respectively.
Number of Seats	:	20
Trade fee	:	7,500/-
Target Group	:	Candidates having BSc. in Engineering and Graduation in Applied Physics, Diploma in Engineering
Trade Objects	:	<ul style="list-style-type: none"> <li>• To describe functions and uses of PLC</li> <li>• To develop PLC program for industrial process</li> <li>• To modify existing Really Control System into PLC System</li> <li>• To install PLC system in a process plant</li> <li>• To maintain and troubleshoot the PLC system.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>• Introduction to PLC</li> <li>• Conventional Relay Control System</li> <li>• Functional description of PLC</li> <li>• Basic function block of PLC</li> <li>• Introduction to programming</li> <li>• Sensors &amp; Actuators</li> <li>• Relay types Instructions</li> <li>• Timer &amp; Counter Instruction</li> <li>• Loop creating sequencer Instruction</li> <li>• Process operation by PLC at BITAC pilot plant</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Industrial visit</li> <li>• Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Individual exercise</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

## 9. SHORT TERM TECHNICAL TRAINING PROGRAM (CUSTOMIZED), BITAC, DHAKA.

### Boiler Operation and Maintenance

Name of the Trade	: Boiler Operation and Maintenance
Duration	: 01-week (35 Hours)
Date	: 21 Aug 2022 to 25 Aug 2022, 16 Oct 2022 to 20 Oct 2022, 11 Dec 2022 to 15 Dec 2022, 12 Feb 2023 to 16 Feb 2023, 12 Mar 2023 to 16 Mar 2023, 04 Jun 2023 to 08 Jun 2023 For Course no: 42, 43, 44, 45, 46 and 47 respectively.
Nomination deadline	: 17 Aug 2022, 16 Oct 2022, 08 Dec 2022, 09 Feb 2023, 09 Mar 2023 and 01 Jun 2023 For Course no: 42, 43, 44, 45, 46 and 47 respectively.
Number of Seats	: 20
Trade fee	: 3,500/-
Target Group	: Entrepreneur, Technical staffs working in the industries like Sugar Mills, Textiles passed at least Class eight.
Trade Objects	: <ul style="list-style-type: none"> <li>• Skill development on Boiler;</li> <li>• Hand on practice on maintenance of different circuits like fuel circuits, water circuit;</li> <li>• Developing knowledge on Acts, rules and regulations;</li> <li>• Awareness on Safety and maintenance.</li> </ul>
Course Contents	: <ul style="list-style-type: none"> <li>• Water circuit</li> <li>• Fuel circuit</li> <li>• Boiler construction</li> <li>• Boiler Maintenance</li> <li>• Safety</li> <li>• Troubleshooting</li> <li>• Act, rules &amp; regulations</li> <li>• Inspection &amp; regulations procedure</li> <li>• Control system</li> </ul>
Training Methodology	: <ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	: <ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

## 10. Skills for Employment Investment Program (SEIP), BITAC- Dhaka, Khulna and Bogura.

### 10.1 Machine Shop Practice

Name of the Trade	: Machine Shop Practice
Duration	: 360 Hours
Batch No.	: 01 Sep 2022 to 30 Nov 2022, 01 Dec 2022 to 28 Feb 2023, 01 Mar 2023 to 31 May 2023, 01 Jun 2023 to 31 Aug 2023 For Batch no: 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> respectively.
Application deadline	: 31 Aug 2022, 30 Nov 2022, 28 Feb 2023, 31 May 2023 For Batch no: 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> and 7 <sup>th</sup> respectively.
Number of Seats	: 30
Trade Fee	: <b>Free</b>
Target Group	: Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Trade Objects	: <ul style="list-style-type: none"> <li>• To perform Computations Using Basic Mathematical Concepts</li> <li>• To apply Occupational Health and Safety (OHS) Practices in the Workplace</li> <li>• To communicate in English in the Workplace</li> <li>• To operate in a Self-Directed Team</li> <li>• To interpret Technical Drawings and Plans</li> <li>• To work with Mechanical Hand and Power Tools</li> <li>• To carry Out Precision Checks and Measurements</li> <li>• To apply Quality System and procedures</li> <li>• Carry out Bench Working Operations</li> <li>• To perform Drilling, Lathe, Milling, Shaper and Precision Grinding Machine Operations</li> </ul>
Course Contents	: <ul style="list-style-type: none"> <li>• To operate in a Self-Directed Team</li> <li>• To communicate in English in the Workplace</li> <li>• To perform Computations Using Basic Mathematical Concepts</li> <li>• To apply Occupational Health &amp; Safety(OHS) Practices in the Workplace</li> <li>• To work with Mechanical Hand &amp; Power Tool</li> <li>• Carry Out Precision Checks &amp; Measurements</li> <li>• To apply Quality System and Procedures</li> </ul>
Training Methodology	: <ul style="list-style-type: none"> <li>• Class-room lecture</li> <li>• Group discussion</li> <li>• Practical exercise</li> <li>• Demonstration</li> </ul>
Evaluation System	: <ul style="list-style-type: none"> <li>• Observation</li> <li>• Question and answer</li> <li>• Oral test</li> <li>• Overall performance.</li> </ul>

## 10.2 Electrical Installation and Maintenance

Name of the Trade	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Batch No.	:	01 Sep 2022 to 30 Nov 2022, 01 Dec 2022 to 28 Feb 2023, 01 Mar 2023 to 31 May 2023, 01 Jun 2023 to 31 Aug 2023 For Batch no: 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> respectively.
Application deadline	:	31 Aug 2022, 30 Nov 2022, 28 Feb 2023, 31 May 2023 For Batch no: 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> and 7 <sup>th</sup> respectively.
Number of Seats	:	30
Trade Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Trade Objects	:	<ul style="list-style-type: none"> <li>● Use basic mathematical concepts</li> <li>● Carryout Workplace Interaction</li> <li>● To apply OSH Practices in the Workplace</li> <li>● Interpret Drawings and Specifications In Electrical Installation</li> <li>● Use Hand and Power Tools for Electrical Works</li> <li>● To perform Channel and Conduit Wiring</li> <li>● Install Earthing and Atmospheric Lightning Protection System</li> <li>● To perform service and motor connection</li> <li>● Install and maintain electric motor with control system.</li> <li>● To perform motor rewinding and servicing</li> <li>● Install And Troubleshoot Solar Electrical System.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● Use Basic Mathematical Concepts</li> <li>● Carry out Workplace Interaction</li> <li>● To apply OHS Practices in the Workplace</li> <li>● Use Hand and Power Tools for Electrical Works</li> <li>● To perform Motor Rewinding Servicing and Motor Connection</li> <li>● To interpret Drawing &amp; Specifications in Electrical Installation</li> <li>● Install and Maintain Electric Motor with Control System</li> <li>● Install and Troubleshoot Solar Electrical System</li> <li>● To perform Conduit Wiring, Service Connection and Channel Wiring</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Class-room lecture</li> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

## 10.3 Welding

Name of the Course	:	Welding
Duration	:	360 Hours
Batch No.	:	01 Sep 2022 to 30 Nov 2022, 01 Dec 2022 to 28 Feb 2023, 01 Mar 2023 to 31 May 2023, 01 Jun 2023 to 31 Aug 2023 For Batch no: 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> respectively.
Application deadline	:	31 Aug 2022, 30 Nov 2022, 28 Feb 2023, 31 May 2023 For Batch no: 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> and 7 <sup>th</sup> respectively.
Number of Seats	:	30
Course Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	:	<ul style="list-style-type: none"> <li>● To perform Computations Using Basic Mathematical Concepts</li> <li>● To apply OHS Practices in the Workplace</li> <li>● To communicate in English in the Workplace</li> <li>● To operate in a Self-Directed Team</li> <li>● To interpret Technical Drawings and Manuals</li> <li>● To work with Mechanical Hand and Power Tools</li> <li>● Carry Out Precision Checks and Measurements</li> <li>● To apply Quality Systems and Procedures</li> <li>● To apply fundamentals of welding metallurgy</li> <li>● Carry Out Shielded Metal Arc Welding (SMAW)</li> <li>● To perform Gas welding, Gas cutting, Brazing and Soldering</li> <li>● Carry out Gas Tungsten Arc Welding (TIG)</li> <li>● Carry out Gas Metal Arc Welding (MIG)</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● To operate in a Self-Directed Team</li> <li>● To communicate in English in the Workplace</li> <li>● To apply Occupational Health &amp; Safety(OHS) Practices in the Workplace</li> <li>● Fundamental of Welding Metallurgy</li> <li>● To work with Mechanical Hand &amp; Power Tools</li> <li>● Apply Quality System &amp; Procedures</li> <li>● To interpret Technical Drawings &amp; Manuals</li> <li>● Gas welding, Gas cutting, Brazing and Soldering</li> <li>● Shielded Metal Arc Welding</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Class-room lecture</li> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>



## Skills for Employment Investment Program (SEIP), BITAC- Chottogram

### 10.4 Machine Shop Practice

Name of the Trade	:	Machine Shop Practice
Duration	:	360 Hours
Batch No.	:	01 Aug 2022 to 27 Oct 2022, 30 Oct 2022 to 19 Jan 2023, 22 Jan 2023 to 06 Apr 2023, 09 Apr 2023 to 13 Jul 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Application deadline	:	31 Jul 2022, 27 Oct 2022, 19 Jan 2023, 06 Apr 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Number of Seats	:	30
Course Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Trade Objects	:	<ul style="list-style-type: none"> <li>To perform Computations Using Basic Mathematical Concepts</li> <li>To apply Occupational Health and Safety (OHS) Practices in the Workplace</li> <li>To communicate in English in the Workplace</li> <li>To operate in a Self-Directed Team</li> <li>To interpret Technical Drawings and Plans</li> <li>To work with Mechanical Hand and Power Tools</li> <li>To carry Out Precision Checks and Measurements</li> <li>To apply Quality System and procedures</li> <li>Carry out Bench Working Operations</li> <li>To perform Drilling, Lathe, Milling, Shaper and Precision Grinding Machine Operations</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>To operate in a Self-Directed Team</li> <li>To communicate in English in the Workplace</li> <li>To perform Computations Using Basic Mathematical Concepts</li> <li>To apply Occupational Health &amp; Safety(OHS) Practices in the Workplace</li> <li>To work with Mechanical Hand &amp; Power Tool</li> <li>Carry Out Precision Checks &amp; Measurements</li> <li>To apply Quality System and Procedures</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

### 10.5 Electrical Installation and Maintenance

Name of the Trade	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Batch No.	:	01 Aug 2022 to 27 Oct 2022, 30 Oct 2022 to 19 Jan 2023, 22 Jan 2023 to 06 Apr 2023, 09 Apr 2023 to 13 Jul 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Application deadline	:	31 Jul 2022, 27 Oct 2022, 19 Jan 2023, 06 Apr 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Number of Seats	:	30
Trade Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Trade Objects	:	<ul style="list-style-type: none"> <li>Use basic mathematical concepts</li> <li>Carryout Workplace Interaction</li> <li>To apply OSH Practices in the Workplace</li> <li>Interpret Drawings and Specifications In Electrical Installation</li> <li>Use Hand and Power Tools for Electrical Works</li> <li>To perform Channel and Conduit Wiring</li> <li>Install Earthing and Atmospheric Lightning Protection System</li> <li>To perform service and motor connection</li> <li>Install and maintain electric motor with control system.</li> <li>To perform motor rewinding and servicing</li> <li>Install And Troubleshoot Solar Electrical System.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>Use Basic Mathematical Concepts</li> <li>Carry out Workplace Interaction</li> <li>To apply OHS Practices in the Workplace</li> <li>Use Hand and Power Tools for Electrical Works</li> <li>To perform Motor Rewinding Servicing and Motor Connection</li> <li>To interpret Drawing &amp; Specifications in Electrical Installation</li> <li>Install and Maintain Electric Motor with Control System</li> <li>Install and Troubleshoot Solar Electrical System</li> <li>To perform Conduit Wiring, Service Connection and Channel Wiring</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

### 10.6 Welding

Name of the Course	:	Welding
Duration	:	360 Hours
Batch No.	:	01 Aug 2022 to 27 Oct 2022, 30 Oct 2022 to 19 Jan 2023, 22 Jan 2023 to 06 Apr 2023, 09 Apr 2023 to 13 Jul 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Application deadline	:	31 Jul 2022, 27 Oct 2022, 19 Jan 2023, 06 Apr 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Number of Seats	:	30
Course Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	:	<ul style="list-style-type: none"> <li>● To perform Computations Using Basic Mathematical Concepts</li> <li>● To apply OHS Practices in the Workplace</li> <li>● To communicate in English in the Workplace</li> <li>● To operate in a Self-Directed Team</li> <li>● To interpret Technical Drawings and Manuals</li> <li>● To work with Mechanical Hand and Power Tools</li> <li>● Carry Out Precision Checks and Measurements</li> <li>● To apply Quality Systems and Procedures</li> <li>● To apply fundamentals of welding metallurgy</li> <li>● Carry Out Shielded Metal Arc Welding (SMAW)</li> <li>● To perform Gas welding, Gas cutting, Brazing and Soldering</li> <li>● Carry out Gas Tungsten Arc Welding (TIG)</li> <li>● Carry out Gas Metal Arc Welding (MIG)</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● To operate in a Self-Directed Team</li> <li>● To communicate in English in the Workplace</li> <li>● To apply Occupational Health &amp; Safety(OHS) Practices in the Workplace</li> <li>● Fundamental of Welding Metallurgy</li> <li>● To work with Mechanical Hand &amp; Power Tools</li> <li>● Apply Quality System &amp; Procedures</li> <li>● To interpret Technical Drawings &amp; Manuals</li> <li>● Gas welding, Gas cutting, Brazing and Soldering</li> <li>● Shielded Metal Arc Welding</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Class-room lecture</li> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

### Skills for Employment Investment Program (SEIP), BITAC- Chandpur 10.7 Electrical Installation and Maintenance

Name of the Trade	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Batch No.	:	16 Aug 2022 to 10 Nov 2022, 13 Nov 2022 to 05 Feb 2023, 06 Feb 2023 to 07 May 2023, 08 May 2023 to 03 Aug 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Application deadline	:	14 Aug 2022, 10 Nov 2022, 05 Feb 2023, 07 May 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Number of Seats	:	30
Trade Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Trade Objects	:	<ul style="list-style-type: none"> <li>● Use basic mathematical concepts</li> <li>● Carryout Workplace Interaction</li> <li>● To apply OSH Practices in the Workplace</li> <li>● Interpret Drawings and Specifications In Electrical Installation</li> <li>● Use Hand and Power Tools for Electrical Works</li> <li>● To perform Channel and Conduit Wiring</li> <li>● Install Earthing and Atmospheric Lightning Protection System</li> <li>● To perform service and motor connection</li> <li>● Install and maintain electric motor with control system.</li> <li>● To perform motor rewinding and servicing</li> <li>● Install And Troubleshoot Solar Electrical System.</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● Use Basic Mathematical Concepts</li> <li>● Carry out Workplace Interaction</li> <li>● To apply OHS Practices in the Workplace</li> <li>● Use Hand and Power Tools for Electrical Works</li> <li>● To perform Motor Rewinding Servicing and Motor Connection</li> <li>● To interpret Drawing &amp; Specifications in Electrical Installation</li> <li>● Install and Maintain Electric Motor with Control System</li> <li>● Install and Troubleshoot Solar Electrical System</li> <li>● To perform Conduit Wiring, Service Connection and Channel Wiring</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Class-room lecture</li> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

## 10.8 Welding

Name of the Course	:	Welding
Duration	:	360 Hours
Batch No.	:	16 Aug 2022 to 10 Nov 2022, 13 Nov 2022 to 05 Feb 2023, 06 Feb 2023 to 07 May 2023, 08 May 2023 to 03 Aug 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Application deadline	:	14 Aug 2022, 10 Nov 2022, 05 Feb 2023, 07 May 2023 For Batch no: 5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> and 8 <sup>th</sup> respectively.
Number of Seats	:	30
Course Fee	:	<b>Free</b>
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	:	<ul style="list-style-type: none"> <li>● To perform Computations Using Basic Mathematical Concepts</li> <li>● To apply OHS Practices in the Workplace</li> <li>● To communicate in English in the Workplace</li> <li>● To operate in a Self-Directed Team</li> <li>● To interpret Technical Drawings and Manuals</li> <li>● To work with Mechanical Hand and Power Tools</li> <li>● Carry Out Precision Checks and Measurements</li> <li>● To apply Quality Systems and Procedures</li> <li>● To apply fundamentals of welding metallurgy</li> <li>● Carry Out Shielded Metal Arc Welding (SMAW)</li> <li>● To perform Gas welding, Gas cutting, Brazing and Soldering</li> <li>● Carry out Gas Tungsten Arc Welding (TIG)</li> <li>● Carry out Gas Metal Arc Welding (MIG)</li> </ul>
Course Contents	:	<ul style="list-style-type: none"> <li>● To operate in a Self-Directed Team</li> <li>● To communicate in English in the Workplace</li> <li>● To apply Occupational Health &amp; Safety(OHS) Practices in the Workplace</li> <li>● Fundamental of Welding Metallurgy</li> <li>● To work with Mechanical Hand &amp; Power Tools</li> <li>● Apply Quality System &amp; Procedures</li> <li>● To interpret Technical Drawings &amp; Manuals</li> <li>● Gas welding, Gas cutting, Brazing and Soldering</li> <li>● Shielded Metal Arc Welding</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>● Class-room lecture</li> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Demonstration</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>● Observation</li> <li>● Question and answer</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

## 11. Self-Employment and Poverty Alleviation (SEPA), Phase-2, BITAC.

### 11.1 BITAC, Dhaka. (Only For Female Candidate)

S.I No.	Name of the Trade	Time Schedule	No. of Seats/ Trade/Batch	Course Fee
1	Machine Shop	From 01 Jul 2022 to 28 Sep 2022 for the 5 <sup>th</sup> batch  From 01 Oct 2022 to 29 Dec 2022 for the 6 <sup>th</sup> batch  From 01 Jan 2023 to 31 Mar 2023 for the 7 <sup>th</sup> batch  From 01 Apr 2023 to 29 Jun 2023 for the 8 <sup>th</sup> batch	30	Free
2	Electronics			
3	Electrical Maintenance			
4	Refrigeration & Air conditioning			
5	Auto CAD			
6	House Hold Appliance Maintenance			
7	Handicraft			
8	Plastic Processing			
9	Plastic Processing Customized			
Target Group		Minimum JSC pass or Equivalent Age Limit: 18 to 45 Years		

### 11.2 BITAC, Chattogram. (Only For Male Candidate)

S.I No.	Name of the Trade	Time Schedule	No. of Seats/Trade/Batch	Course Fee
1	Welding (Arc & Gas)	From 01 Jul 2022 to 28 Sep 2022 for the 5 <sup>th</sup> batch	30	<b>Free</b>
2	Refrigeration & Air Conditioning	From 01 Oct 2022 to 29 Dec 2022 for the 6 <sup>th</sup> batch		
		From 01 Jan 2023 to 31 Mar 2023 for the 7 <sup>th</sup> batch		
		From 01 Apr 2023 to 29 Jun 2023 for the 8 <sup>th</sup> batch		
Target Group		Minimum JSC pass or Equivalent Age Limit: 18 to 45 Years		

### 11.3 BITAC, Chandpur, Khulna and Bogura. (Only For Male Candidate)

S.I No.	Name of the Trade	Time Schedule	No. of Seats/Trade/Batch	Course Fee
1	Welding (Arc & Gas)	From 01 Jul 2022 to 28 Sep 2022 for the 5 <sup>th</sup> batch	30	<b>Free</b>
2	Electrical Maintenance	From 01 Oct 2022 to 29 Dec 2022 for the 6 <sup>th</sup> batch		
		From 01 Jan 2023 to 31 Mar 2023 for the 7 <sup>th</sup> batch		
		From 01 Apr 2023 to 29 Jun 2023 for the 8 <sup>th</sup> batch		
Target Group		Minimum JSC pass or Equivalent Age Limit: 18 to 45 Years		

**12. INDUSTRIAL ATTACHMENT TECHNICAL TRAINING PROGRAM, BITAC-Dhaka, Chattogram, Khulna, Bogura, Chandpur and TTI, Dhaka.**

Name of the Trade	INDUSTRIAL ATTACHMENT TECHNICAL TRAINING PROGRAM
Duration	04/12 Weeks
Date	At any time of the year depending on the participating Institute
Nomination deadline	Depends on the participating Institute
Number of Seats	As per Demand
Trade fee	As per Govt. rule depending on the sending Institute
Target Group	All the public and private technical universities, polytechnic institutes, TTC, etc.
Trade Objects	<ul style="list-style-type: none"> <li>● Introducing different conventional machine tools such as lathe, milling, grinding planer, boring, shaper, shearing, drilling, ball press, power press etc. and CNC &amp; Servo Control machine tools such as lathe, milling center, Die Sink EDM, &amp; wire cut EDM.</li> <li>● Comparing theoretical and practical operation systems of different traditional and CNC machine tool to develop spare parts or products,</li> <li>● Acquainting with different melting and heat treatment furnaces and their operation system and also different surface treatment including protective coating;</li> <li>● To make adapted in real life situation</li> <li>● Understanding estimation and controlling production system.</li> <li>● Rendering practical know-how on plastic processing technology.</li> <li>● Introducing 3D printing operation.</li> <li>● Understanding Hydraulic System</li> </ul>
Course Contents	<ul style="list-style-type: none"> <li>● Welding and Fabrication</li> <li>● Conventional Machine Tool-lathe, milling grinder, planer, boring, shaper, shearing, drilling, ball press and power press machine etc.</li> <li>● CNC Machine Tool-lathe, milling machining center &amp; Wire cut EDM, 3D printing &amp; Hydraulic System.</li> <li>● Special Machine Tool-Copy milling, pantograph milling, profile grinder, jig Boring &amp; jig Grinding, servo control die sink, EDM</li> <li>● Tool and Cutter Grinding,</li> <li>● Light Forging,</li> <li>● Heat-Treatment</li> <li>● Electroplating</li> <li>● Patten,</li> <li>● Foundry</li> <li>● Plastic Possessing machinery</li> </ul>
Training Methodology	<ul style="list-style-type: none"> <li>● Group discussion</li> <li>● Practical exercise</li> <li>● Case study.</li> </ul>
Evaluation System	<ul style="list-style-type: none"> <li>● Group exercise</li> <li>● Individual exercise</li> <li>● Discussion</li> <li>● Oral test</li> <li>● Overall performance.</li> </ul>

**13. BITAC, Chattogram.**

**13.1 Long Term Technical Training Program (Regular)**

S.I No.	Name of the Trade	Trade No.	Duration	Practicing Week	No. of Seats	Trade Fee
1	Machine Shop	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	10	5,000/-
2	Electrical Maintenance	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	20	8,000/-
3	Welding	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	20	7,500/-
4	Machine Maintenance	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	6	5,000/-

**13.2 Mid Term Technical Training Program (Customized).**

Sl. No.	Name of the Trade	Trade No.	Duration	Practicing Weeks	No. of seats	Trade Fee
1	Auto CAD (2D & 3D)	As per Demand	As per Discussion	6	6	5,000/-
2	Solid Works				6	7,500/-

**13.3 Long Term Technical Training Program (Customized).**

Name of the Trade	Trade No.	Duration	Practicing Hours	No. of Seats	Trade Fee
Refrigeration and Air Conditioning	As per Demand	As per Discussion	360	10	5,000/-

**13.4 Mid Term Technical Training Program (Customized).**

Name of the Trade	Trade No.	Duration	Practicing Weeks	No. of seats	Trade Fee
Boiler Operation and Maintenance	As per Demand	As per Discussion	6	6	5,000/-

**14. BITAC, Chandpur, Khulna & Bogura**  
**Long Term Technical Training Program (Regular)**

S.I No	Name of the Trade	Trade No	Duration	Practicing Week	No. of Seats	Trade Fee
1	Machine Shop	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	10	5,000/-
2	Electrical Maintenance	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	20	8,000/-
3	Welding	166 167 168 169	03 Jul 2022 to 06 Oct 2022 10 Oct 2022 to 12 Jan 2023 15 Jan 2023 to 20 Apr 2023 07 May 2023 to 10 Aug 2023	14	20	7,500/-

**15. Tool & Technology Institute (TTI), BITAC, Dhaka-1208.**  
**Training Program (Regular & Customized)**

Sl No.	Name of Course	Course No.	Schedule	Duration (Weeks)	No of Seats	Course Fee
1.	CAD/CAM Milling	7 8 9	01 Oct to 30 Dec 01 Feb to 30 Apr 01 Jun to 30 Aug	12 12 12	15 15 15	10000/=
2.	CAD/CAM Lathe	2 3 4	01 Oct to 30 Dec 01 Feb to 30 Apr 01 Jun to 30 Aug	12 12 12	15 15 15	10000/=
3.	Mechatronics	3 4 5	01 Oct to 30 Dec 01 Feb to 30 Apr 01 Jun to 30 Aug	12 12 12	10 10 10	10000/=
4.	Hydraulics & Pneumatics	4 5 6	01 Oct to 30 Dec 01 Feb to 30 Apr 01 Jun to 30 Aug	12 12 12	10 10 10	10000/=
5.	Customized	According to Demand				

**15.1 CAD/CAM Milling**

Name of the Course	:	CAD/CAM Milling
Duration	:	12 Weeks
Date	:	01 Oct to 30 Dec, 01 Feb to 30 Apr and 01 Jun to 30 Aug
Nomination Deadline	:	20 Sep 2022, 20 Jan 2022, 20 May 2022
Number of Seats	:	15
Course Fee	:	10000/=
Target Group	:	Candidate having B.Sc/Diploma in engineering or equivalent. For technical experience educational qualification might be compromised.
Course object	:	<ul style="list-style-type: none"> <li>To understand the principle of CNC milling operations.</li> <li>To know how to operate a CNC milling machine.</li> <li>To learn CNC milling basic programming.</li> <li>To know how to reduce machining time.</li> <li>To design particular part and develop in machine.</li> <li>To design product in software and cut in machine.</li> </ul>
Course Content	:	<ul style="list-style-type: none"> <li>Safety</li> <li>Machine operating</li> <li>manual programming with G&amp;M codes</li> <li>Mechanical Drawing</li> <li>Solid works</li> <li>Mastercam 2D programming</li> <li>Mastercam 3D programming</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>

### 15.2 CAD/CAM Lathe

Name of the Course	:	CAD/CAM Lathe
Duration	:	12 Weeks
Date	:	01 Oct to 30 Dec, 01 Feb to 30 Apr and 01 Jun to 30 Aug
Nomination Deadline	:	20 Sep 2022, 20 Jan 2022, 20 May 2022
Number of Seats	:	15
Course Fee	:	10000/=
Target Group	:	Candidate having B.Sc/Diploma in engineering or equivalent. For technical experience educational qualification might be compromised.
Course object	:	<ul style="list-style-type: none"> <li>To understand the principle of CNC lathe operations.</li> <li>To know how to operate a CNC lathe machine.</li> <li>To learn CNC lathe basic programming.</li> <li>To know how to reduce machining time.</li> <li>To design particular part and develop in machine.</li> <li>To design product in software and cut in machine.</li> </ul>
Course Content	:	<ul style="list-style-type: none"> <li>Safety</li> <li>Machine operating</li> <li>manual programming with G&amp;M codes</li> <li>Mechanical Drawing</li> <li>Solid works</li> <li>Mastercam 2D programming</li> <li>Mastercam 3D programming</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>

### 15.3 Mechatronics

Name of the Course	:	Mechatronics
Duration	:	12 Weeks
Date	:	01 Oct to 30 Dec, 01 Feb to 30 Apr and 01 Jun to 30 Aug
Nomination Deadline	:	20 Sep 2022, 20 Jan 2022, 20 May 2022
Number of Seats	:	15
Course Fee	:	10000/=
Target Group	:	Candidate having B.Sc/Diploma in engineering or equivalent. For technical experience educational qualification might be compromised.
Course object	:	<ul style="list-style-type: none"> <li>To understand the principle of Mechatronics and its application.</li> <li>To know the application of PLC.</li> <li>To know various sensors and actuator and its application.</li> <li>To understand the industrial application of hydraulic and pneumatics.</li> <li>To understand the application of Automation.</li> </ul>
Course Content	:	<ul style="list-style-type: none"> <li>Pneumatic system</li> <li>Electro-pneumatic system</li> <li>Mechanical power transmission system</li> <li>Basic hydraulic and hydraulic control system</li> <li>Hydraulic circuit and Electro-hydraulic</li> <li>Programmable Logic Control (PLC)</li> <li>Sensor &amp; Instrumentation</li> <li>Introduction to Micro-Controller</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>

#### 15.4 Hydraulics & Pneumatics

Name of the Course	:	Hydraulics & Pneumatics
Duration	:	12 Weeks
Date	:	01 Oct to 30 Dec, 01 Feb to 30 Apr and 01 Jun to 30 Aug
Nomination Deadline	:	20 Sep 2022, 20 Jan 2022, 20 May 2022
Number of Seats	:	15
Course Fee	:	10000/=
Target Group	:	Candidate having B.Sc/Diploma in engineering or equivalent. For technical experience educational qualification might be compromised.
Course object	:	<ul style="list-style-type: none"> <li>• To understand the principle of hydraulic system.</li> <li>• To know how a hydraulic system works.</li> <li>• To learn about the symbol and components of hydraulic system.</li> <li>• To learn about hydraulic troubleshooting.</li> <li>• To learn about hydraulic circuits.</li> <li>• To design simple hydraulic circuit.</li> </ul>
Course Content	:	<ul style="list-style-type: none"> <li>• Basic Hydraulic &amp; Symbol</li> <li>• Hydraulic Components</li> <li>• Troubleshooting</li> <li>• Hydraulic Fluid &amp; Hose-Fitting</li> <li>• Hydraulic Circuit &amp; Close Loop System</li> <li>• Advanced Hydraulic &amp; Final Evaluation</li> </ul>
Training Methodology	:	<ul style="list-style-type: none"> <li>• Theory Classes</li> <li>• Demonstration</li> <li>• Practice on machine</li> <li>• Daily evaluation</li> <li>• Motivational session</li> </ul>
Evaluation System	:	<ul style="list-style-type: none"> <li>• Participation in the session</li> <li>• Oral test</li> <li>• Written test</li> <li>• Evidence guides</li> <li>• Practical examination</li> </ul>