Training Calendar: 2023-2024



Bangladesh Industrial Technical Assistance Center (BITAC)

116 (Kha), Tejgaon Industrial Area, Dhaka-1208 Phone: 02-55030056 E-mail: trainingdhaka@bitac.gov.bd, Website: www.bitac.gov.bd

		Contents	Page
1		Introduction	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		Technical Training Program, BITAC.	
	2.1	Long Term Technical Training Program (Regular)	5
	2.2	Customized Technical Training Program	5
	2.3	Technical Training Program Addressing 4IR (Customized)	6
	2.4	Short Term Technical Training Program	6
	2.5	Industrial Attachment Technical Training Program	6
3		Long Term Technical Training Program (Regular), BITAC, Dhaka.	
	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		Technical Training Program Addressing 4IR (Customized), BITAC, Dhaka.	
	4.1	Computer Aided Engineering (CAE)	13
	4.2	3D Printing	14
	4.3	Cloud Based CNC Machining Center Operation	15
	4.4	Electrical Energy Monitoring System (Installation, Operation & SCADA Visualization)	16
5		Customized Technical Training Program, BITAC, Dhaka.	
	5.1	Heat Treatment	17
	5.2	CNC Lathe Operation and Practice	18
	5.3	CNC Milling Operation and Practice	19
	5.4	CNC Machining Center Operation and Practice	20
	5.5	Die Sink EDM & Wire Cut EDM Operation & Practice	21
	5.6	Plastic Technology	22
	5.7	Auto CAD (2D&3D)	23
	5.8	SolidWorks	24
6		Short Term Technical Training Program (Regular), BITAC, Dhaka.	
	6.1	Programmable Logic Controller (PLC)	25
L	6.2	Boiler Operation & Maintenance	26
7	1	Skills for Employment Investment Program (SEIP), BITAC- Dhaka, Khulna & Bogura.	27-29
		Skills for Employment Investment Program (SEIP), BITAC- Chottogram.	30-32
		Skills for Employment Investment Program (SEIP), BITAC- Chandpur.	33-34
8		Skills for Employment Investment Program-2 (SEIP-2), BITAC- Dhaka, Chottogram,	35-37
		Khulna, Bogura, Chandpur.	20.40
9	1	Skills for Employment Investment Program (SEIP), BITAC- Dhaka (Korea Tech)	38-49
10		Technical Training Program Under ASSET Project	50
11		Self-Employment and Poverty Alleviation (SEPA), Phase-2, BITAC.	51-52
12	12.1-12.3	Technical Training Program, BITAC- Chattogram.	53
13	141140	Technical Training Program, BITAC- Chandpur, Khulna & Bogura.	53
14		Tool & Technology Institute (TTI), BITAC, Dhaka-1208.	54
⊢	14.3	CNC Machine Operation	55
L	14.4	Mechatronics & PLC (ASSET)	56
	14.5	Programmable Logic Controller (PLC)	57
	14.6	CAD/CAM Lathe	58
	14.7	Hydraulics & Pneumatics	59
15		Industrial Attachment Technical Training Program, BITAC.	60

INTRODUCTION

1.1 Background

Bangladesh Industrial Technical Assistance Center otherwise known as BITAC is the Successor to Pakistan Industrial Technical Assistance Center (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 Center and persons interested in the objectives of the Center.
- 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.
 - Developed 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 conductive to the attainment of any or all the objectives of the center mentioned above.

1.3 Advisory Committee

Chairperson

Member

: Anwar Hossain Chowdhury Director General, BITAC.
: Dr. Md. Jalal Uddin PEng. Director (Planning), BITAC.
: Md. Abu Sayeed Khan Director (Training), BITAC.

1.4 Editorial Committee

Chairperson

Member

Director (Training), BITAC. : Dr.Engr. Mazharul Habib

: Md. Abu Sayeed Khan

- Additional Director (Training), Dhaka. : Md. Masum Zakaria
- Assistant Engineer (Training), Dhaka.
- : Md. Hasib Mahmud
- Assistant Engineer (Training), Dhaka.

1.5 Course Conducting Committee

Course Advisor

Crouse Director

Crouse Coordinator

BITAC. : Director (Training)

: Director General

BITAC. : Additional Director BITAC.

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 Center (BITAC)	Member Secretary

2. SCHEDULE OF THE TECHNICAL TRAINING PROGRAM, BITAC.

2.1 Long Term Technical Training Program (Regular).

Sl. No.	Name of the course	Course No.	Schedule	Duration (Weeks)	No. of seats
1	Machine Shop	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	25
2	Electrical Maintenance	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	25
3	Welding	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	25
4	Machine Maintenance	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	25
5	Automobile & Auto-electricity	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	25
6	Foundry & Pattern Making	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	10

2.2 Customized Technical Training Program.

Sl. No.	Name of the Course	Duration (Hours)	No. of seats
1	Machine Shop	360	20
2	Electrical Maintenance	360	20
3	Welding	360	20
4	Machine Maintenance	360	20
5	Automobile & Auto-electricity	360	10
6	Foundry & Pattern Making	360	5
7	Heat Treatment	360	5
8	Solid Works	210	20
9	Auto CAD (2D & 3D)	210	20
10	Plastic Technology	210	6
11	CNC Lathe Operation & Practice	140	4
12	CNC Milling Operation & Practice	140	4
13	CNC Machining Center Operation & Practice	140	4
14	Die Sink EDM & Wire Cut EDM Operation & Practice	140	4

2.3 Technical Training Program Addressing 4IR (Customized)

Sl. No.	Name of the Course	Duration (Hours)	No. of Seats/Course
1	3D Printing	120	
2	Computer Aided Engineering (CAE)	120	
3	Cloud Based CNC Machining Center Operation	120	5
4	Energy Monitoring System (Installation, Operation & SCADA Visualization)	90	

2.4 Short Term Technical Training Program

Sl. No.	Name of the Course	Course No.	Schedule	Duration (Hours)	No. of seats
		67	23 Jul 2023 to 03 Aug 2023		
1	Programmable	68	01 Oct 2023 to 12 Oct 2023	70	20
1	Logic Controller (PLC)	69	21 Jan 2024 to 01 Feb 2024		
	(FLC)	70	01 Apr 2024 to 12 Apr 2024		
		48	09 Jul 2023 to 13 Jul 2023		
		49	30 July 2023 to 03 Aug 2023		
		50	27 Aug 2023 to 31 Aug 2023		
		51	17 Sep 2023 to 21 Sep 2023		
2	Boiler Operation & Maintenance	52	15 Oct 2023 to 19 Oct 2023	35	20
	& Maintenance	53	26 Nov 2023 to 30 Nov 2023		
		54	17 Dec 2023 to 21 Dec 2023		
		55	01 Apr 2024 to 05Apr 2024		
		56	06 May 2024 to 10 May 2024		

2.5 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 Course	:	Machine Shop
Duration	:	14 Weeks
Schedule	:	20 Aug 2023 to 23 Nov 2023, 03 Dec 2023 to 08 Mar 2024,
		and 18 Mar 2024 to 21 Jun 2024; For course no: 170, 171
		and 172 respectively.
Nomination deadline	:	17 Aug 2023, 30 Nov 2023 and 15 Mar 2024; For course no: 170, 171 and 172 respectively.
Number of Seats	:	25
Course 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.
Course Objects		 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 Ramming 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. Understanding of mechanical engineering drawing; Informing different machining parameters; Identification on different metals. Introducing design of tools/cutters and Duration; Make Capable of measuring using different measuring instrument; Awareness of safety
Course Contents	:	 Technical Drawing Basic Tool Design Safety & Maintenance Shop Theory Measuring Tools, Fits & Tolerances Related Math. Engineering Materials Heat-Treatment
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Written test Oral test Overall performance.

3.2 Electrical Maintenance

Name of the Course	:	Electrical Maintenance
Duration	:	14 Weeks
Schedule	:	20 Aug 2023 to 23 Nov 2023, 03 Dec 2023 to 08 Mar 2024 and 18 Mar 2024 to 21 Jun 2024; For course no: 170, 171 and 172 respectively.
Nomination deadline	:	17 Aug 2023, 30 Nov 2023 and 15 Mar 2024; For cours no: 170, 171 and 172 respectively.
Number of Seats	:	25
Course fee	:	8,000/-
Target Group	:	Candidate having SSC or equivalent certificate along wit technical experience, Merchant Navy Cadets, Defense civilia staff (army, air force and navy), TTC/VTI certificate holders Diploma in Engineering.
Course Objects	:	 To develop skill in domestic and industrial wiring; To make control circuit and detecting faults and its maintenance; To identify various electronic components and understanding electronic circuit and making circuit. Detecting machine faults, machine winding and is repairing and maintenance; Able of measure using various measuring tools and connect measuring instrument to a circuit.
Course Contents	:	 Electrical Wiring Control System Industrial Electronics Electrical Machine Measuring Tools & Electrical Instruments.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Written test Oral test Overall performance.

3.3 Welding

Name of the Course	:	Welding
Duration	:	14 Weeks
Schedule	:	20 Aug 2023 to 23 Nov 2023, 03 Dec 2023 to 08 Mar 2024
		and 18 Mar 2024 to 21 Jun 2024; For course no: 170, 171
		and 172 respectively.
Nomination deadline		17 Aug 2023, 30 Nov 2023 and 15 Mar 2024; For course
		no: 170, 171 and 172 respectively.
Number of Seats		25
Course 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.
Course Objects	:	 Introduction to different types of welding processes; Identification of different metals; Preparation of different types of welding joints; Welding practice at positions; Introducing different welding Parameter Skill development in arc welding technique and gas welding technique; Detecting welding defects and trouble shooting Designing and making welding jigs fixtures; Learning welding symbols; Make capable of inspection and testing of weld joints; Safety awareness.
Course Contents	:	 Welding Theory on Arc Welding Heat Treatment Gas Welding/Cutting Safety & Maintenance Engineering Materials Technical Drawing Reading Welding Hand tools/Measuring Tools.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Written test Oral test Overall performance.

3.4 Automobile & Auto-electricity

Name of the Course	:	Automobile & Auto-electricity
Duration	:	14 Weeks
Schedule	:	20 Aug 2023 to 23 Nov 2023, 03 Dec 2023 to 08 Mar 2024 and 18 Mar 2024 to 21 Jun 2024; For course no: 170, 171 and 172 respectively.
Nomination deadline	:	17 Aug 2023, 30 Nov 2023 and 15 Mar 2024; For course no: 170, 171 and 172 respectively.
Number of Seats	:	10
Course fee	:	5,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civiliar staff (army, air force and navy), TTC/VTI certificate holders Diploma in Engineering.
Course Objects	:	 To introduce hand tools, machine tools and different measuring instruments; To make capable of major overhauling of auto engine; electrical & electronic parts. Troubles shooting and corrective measures; Dismantling and assembling of gear box and clutch system; To acquaint the participants with auto parts machining, denting and painting; Repairing and maintenance of suspension and brake system; Selecting appropriate blue oil, fuel & tires for different types vehicles.
Course Contents	:	 Basic Engine Fundamental-Electrical and electronic system Power Transmission System Auto-Parts Machining, Denting and painting Measuring Tools Suspension, Break, Fuel & Fuel Injection Systems.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration Model demonstration Team Work Report writing
Evaluation System	:	 Observation Question and answer Individual exercise Written test Oral test Overall performance.

3.5 Machine Maintenance

Name of the Course	:	Machine Maintenance
Duration	:	14 Weeks
Schedule		20 Aug 2023 to 23 Nov 2023, 03 Dec 2023 to 08 Mar 2024
		and 18 Mar 2024 to 21 Jun 2024; For course no: 170, 171
		and 172 respectively.
Nomination deadline	:	17 Aug 2023, 30 Nov 2023 and 15 Mar 2024; For course no:
		170, 171 and 172 respectively.
Number of Seats	:	25
Course 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.
Course Objects	:	 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; Acquainting different types of mechanical compound and driving System; Understanding of blue print reading; Make capable of disassembly and assembly of different machine tools and components; Replacement of lubricants, cutting oil, O-ring, gasket etc; Awareness of safety and maintenance.
Course Contents	:	 Machine Elements Mechanical Component and Driving System General Maintenance Technical Drawing Reading Hand tools/Measuring Tools Safety & Maintenance.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Written test Oral test Overall performance.

3.6 Foundry & Pattern Making

Name of the Course	:	Foundry & Pattern Making
Duration	:	14 Weeks
Schedule	:	20 Aug 2023 to 23 Nov 2023, 03 Dec 2023 to 08 Mar 2024 and 18 Mar 2024 to 21 Jun 2024; For course no: 170, 171 and 172 respectively.
Nomination deadline	:	17 Aug 2023, 30 Nov 2023 and 15 Mar 2024; For course no: 170, 171 and 172 respectively.
Number of Seats	:	05
Course fee	:	5,000/-
Target Group	:	Candidate having SSC or equivalent certificate along wit technical experience, Merchant Navy Cadets, Defense civilia staff (army, air force and navy), TTC/VTI certificate holders Diploma in Engineering.
Course Objects	:	 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.; Understanding blue print reading Preparation of sand for mold and core making, Making mold/core, pasting, metal melting, fettling etc.; Identifying the different metals and alloys; Melting different metals, handling the liquid metal and purring the liquid metal into the mold cavity; Taking different measurement using different measuring instruments; Introducing the heat treatment processes.
Course Contents	:	 Pattern Making Casting processes Sand mold Preparation & Practices. Different types of furnaces Melting Processes Alloying of Metals Safety & Maintenance Engineering Materials Technical Drawing & Reading Welding Hand tools/Measuring Tools. Heat-Treatment
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Written test Oral test Overall performance.

4 Technical Training Program Addressing 4IR (Customized)

4.1 Computer Aided Engineering (CAE)

Name of the Course	:	Computer Aided Engineering (CAE)
Duration	:	4 Weeks (120 Hours)
Schedule	:	20 Aug 2023 to 14 Sep 2023, 26 Nov 2023 to 21 Dec 2023 and 11 Mar 2024 to 05 April 2024; For course no: 4 th , 5 th and 6 th respectively.
Nomination Deadline	:	17 Aug 2023, 23 Nov 2023 and 08 Mar 2024; For course no: 4 th , 5 th and 6 th respectively.
Number of Seats	:	5
Course Fee	:	7500/-
Target Group	:	B.Sc in Engineering, Diploma in Engineering, or equivalent certificate with technical experience and computer literacy
Course Objects	:	 To design 3D object for CNC manufacturing using CAD software To operate the VMC with all recommended settings for manufacturing 3D object To set up static stress simulation
Course Contents	:	 3D Part modelling using Solid works Generating CNC toolpath using Master CAM CNC Programming for vertical machining center (VMC) Introduction to engineering simulation Introduction to Cloud based CAD software (Fusion 360)
Training Methodology	:	 Classroom lecture Group Discussion Practical Exercise Demonstration
Evaluation System	:	 Attendance Oral Question and Answer Individual Exercise Written Test Portfolio

4.2 3D Printing

Name of the Course	:	3D Printing
Duration	:	4 Weeks (120 Hours)
Schedule	:	20 Aug 2023 to 14 Sep 2023, 26 Nov 2023 to 21 Dec 2023 and 11 Mar 2024 to 05 April 2024; For course no: 4 th , 5 th and 6 th respectively.
Nomination Deadline	:	17 Aug 2023, 23 Nov 2023 and 08 Mar 2024; For course no: 4 th , 5 th and 6 th respectively.
Number of Seats	:	5
Course Fee	:	5000/-
Target Group	:	B.Sc in Engineering, Diploma in Engineering, or equivalent certificate with technical experience and computer literacy
Course Objects	:	 To design 3D object for 3D Printing in CAD software To install 3D Printer and all necessary accessorie To troubleshoot common 3D Printing issues To use slicing software and learn G-code for 3D printers
Course Contents	:	 3D Part modelling using Solid works Detailed discussion on slicing software for FDM 3D Printers like Ultimaker Cura and Simplify 3D Hands-on practice on 3D Printer installation, maintenance and operation
Training Methodology	:	 Classroom lecture Group Discussion Practical Exercise Demonstration
Evaluation System	:	 Attendance Oral Question and Answer Individual Exercise Written Test Portfolio

4.3 Cloud Based CNC Machining Center Operation

Name of the Course	Cloud Based CNC Machining Center Operation
Duration	4 Weeks (120 Hours)
Schedule	20 Aug 2023 to 14 Sep 2023, 26 Nov 2023 to 21 Dec 2023 and 11 Mar 2024 to 05 April 2024; For course no: 4 th , 5 th and 6 th respectively.
Nomination Deadline	: 17 Aug 2023, 23 Nov 2023 and 08 Mar 2024; For course no: 4 th , 5 th and 6 th respectively.
Number of Seats	: 5
Course Fee	: 7500/-
Target Group	B.Sc in Engineering, Diploma in Engineering, or equivalent certificate with technical experience and computer literacy
Course Objects	• To design a 3D object for CNC manufacturing in CAD software
	• To operate the VMC with all recommended settings for manufacturing a 3D object
	 To use production monitoring software to track factor production and efficiency.
Course Contents	• 3D Part modelling using Solid works
	 Generating CNC toolpath using Master CAM
	• CNC Programming for vertical machining center (VMC)
	• Introduction to cloud-based production monitoring software for CNC
Training Methodology	Classroom lecture
0 00	Group Discussion
	Practical Exercise
	Demonstration
Evaluation System	• Attendance
	 Oral Question and Answer
	Individual Exercise
	• Written Test
	Portfolio

4.4 Electrical Energy Monitoring System (Installation, Operation & SCADA Visualization)

Name of the Course	Electrical Energy Monitoring System (Installation, Operation &
D	SCADA Visualization)
Duration	3 Weeks (90 Hours)
Schedule	20 Aug 2023 to 07 Sep 2023, 26 Nov 2023 to 14 Dec 2023 and 11 Mar 2024 to 30 Mar 2024; For course no: 4 th , 5 th and 6 th respectively.
Nomination Deadline	17 Aug 2023, 23 Nov 2023 and 08 Mar 2024; For course no: 4 th , 5 th and 6 th respectively.
Number of Seats	5
Course Fee	7500/-
Target Group	B.Sc in Engineering, Diploma in Engineering, or equivalent certificate with technical experience and computer literacy
Course Objects	To Install Energy Monitoring Devices
	• To Perform System Wiring of Electrical & Communication network of Electrical Energy Monitoring
	• To Configuration Multifunction Energy Meter
	• To Configuration Main PLC CPU of Energy Monitoring
	• To Configuration PC SCADA of Energy Monitoring
	To Configure Network devices of Energy Monitoring
	• To Configure Web and Mobile Client of Energy Monitoring
	 To Monitor and Data Logging to PC SCADA Of energy parameters
Course Contents	 Information and specifications of Energy Monitoring Software PLC, IIoT Gateway, Multifunctional Energy Meter and MODBUS RTU Manual
	 Install mobile, desktop SCADA monitoring application
	• Monitoring Application Configuration on SCADA PC.
	• Establish PLC and monitoring app communication.
	Configuration of IP Address and Remote Monitoring System
	• Configuration of API key Remote Monitoring of Energy Monitoring System
	Configuration of User ID and password Remote Monitoringof
	Energy Monitoring System
	 Configuration VPN & Talk 2M web access Remote
	Monitoring of Energy Monitoring System
	Configuration of WAN IP Remote Monitoring of Energy
Training	Classroom lecture
Methodology	• Practical Exercise
g	Demonstration
Evaluation System	Attendance
	• Oral Question and Answer
	Individual Exercise

15

5. Customized Technical Training Program.5.1 Heat Treatment

5.1 Heat Treatment		
Name of the Course	:	Heat Treatment
Duration	:	12 Weeks (360 Hours)
Schedule	:	As per Discussion
Nomination deadline	:	As per Demand.
Number of Seats	:	05
Course 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.
Course Objects	:	 Demonstration and Duration on Annealing Normalizing, Hardening & Tempering. Introduction to different types of heat treatment furnaces; Acquainting with different cooling media used for different metals and their alloys; Identification of different type of metals; Demonstration of quenching technique; Duration hardness measurement; Preparing carburizing compound; Demonstration on packaging of job into carburizing compound. Awareness of safety.
Course Contents	:	 Safety & Maintenance Engineering materials Fundamental of Heat Treatment Furnace Design
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Written test Overall performance. Oral Test

5.2 CNC Lathe Operation & Practice

	1	1
Name of the Course	:	CNC Lathe Operation & Practice
Duration	:	04 Weeks (140 Hours)
Schedule	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Course fee	:	5,000/-
Target Group	:	BSc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Course Objects	:	 In depth exploration of ISO as related to lathe operation; Detail lessons ranging from basic advanced programming; techniques using ISO and a representative lathe CNC control. Hands on machining practice under real-life shop Environment. Introduction & Basic programming
Course Contents		 ISO Code (G & M code) Machine parameter & Function. Different operation & ramming.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Oral test Overall performance.

5.3 CNC Milling Operation & Practice

Name of the Course	:	CNC Milling Operation & Practice
Duration	:	04 Weeks (140 Hours)
Schedule	:	As per Discussion.
Nomination deadline		As per Demand.
Number of Seats	:	04
Course fee	:	5,000/-
Target Group	:	B.Sc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Course Objects	:	 In depth exploration of ISO as related to milling; Detail Lessons ranging from basic to advanced programming; techniques using ISO and a representative milling CNC control (Haidenhein TNC-310); Hands on machining practice under real-life shop environment
Course Contents	:	 Introduction & Basic programming. ISO Code (G & M code) Machine parameter & Function. Different operation & ramming.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Oral test Overall performance.

C 5.4 CNC Machining Center Operation & Practice

	1	
Name of the Course	:	CNC Machining Center Operation & Practice
Duration	:	04 Weeks (140 Hours)
Schedule	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Course fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Course Objects	:	 In depth exploration of ISO as related to milling and drilling oriented operations; 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); Hands on machining practice under real-life shop Environment.
Course Contents	:	 Introduction & Basic programming. ISO Code (G & M code) Machine parameter & Function. Different operation & ramming.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Oral test Overall performance.

5.5 Die Sink EDM & Wire Cut EDM Operation & Practice

Name of the Course	:	Die Sink EDM & Wire Cut EDM Operation & Practice
Duration	:	04 Weeks (140 Hours)
Schedule	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	04
Course fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering TTC/HSC (Voc)
Course Objects	:	 Understanding of EDM process and factors involved; Rendering knowledge on die-sink & wire cut EDM machines, their components and control systems; Acquaintance with electrode (Properties, materials and machining), dielectric fluids (Properties, function); Programming with ISO codes and a representative control language (Robostar); Use of CAM and Simulation to facilitate programming; Making workable mold cavities, dies and punches using die-sink & wire-cut EDM process.
Course Contents	:	 Basic programming (wire cut) & operation Basic operation Application operation NC programming. My cam (software).
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	 Observation Question and answer Individual exercise Oral test Overall performance.

5.6 Plastic Technology

Name of the Course	:	Plastic Technology
Duration	:	04 Weeks (140 Hours)
Schedule	:	As per Discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	05
Course fee	:	4,000/-
Target Group	:	Entrepreneur, technical staff working in the Plastic processing industries, TTC/VTI, Disabilities.
Course Objects	:	 To operate injection molding machine, compression molding machine, vacuum forming machine, extruder machine, blow molding and the plastic machinery; Usage and maintenance of plastic mold; Selection of appropriate plastic materials for products; Maintenance and controlling of plastic machinery; Testing procedure of plastic.
Course Contents	:	 Plastic materials Plastic Testing Plastic Processing machinery Mold making Heat Treatment Electroplating Machine Control System and Maintenance.
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Case study Industrial visit.
Evaluation System	:	 Observation Question and Answer Individual exercise Oral test Overall performance.

5.7 Auto CAD (2D & 3D)

Name of the Course	:	Auto CAD (2D & 3D)
Duration	:	06 Weeks (210 Hours)
Schedule	:	15 Oct 2023 to 23 Nov 2023, 28 Jan 2023 to 08 Mar
		2024 and 13 May 2024 to 21 Jun 2024; For course
		no: 170, 171and 172 respectively.
Nomination deadline	:	12 Oct 2023, 25 Jan 2023 and 10 May; For course
Nomination deadine		no: 170, 171 and 172 respectively.
Number of Seats	:	20
Course fee	:	7,500/-
Target Group	:	B.Sc in Engineering, Diploma in Engineering,
		TTC/ HSC (Voc)
Course Objects		• Understanding and Duration of working and
		assembly drawing;
		• Introducing the importance of computer aided
		design (CAD);
		• Male capable of computer aided designing.
Course Contents		 Mechanical Drafting
		 Auto CAD-2D
		 Auto CAD-3D
		 Component drawing
Training Methodology		Class-room lecture
		• Group discussion
		Practical exercise
		• Demonstration
Evaluation System		Observation
·		• Question and answer
		Individual exercise
		• Oral test
		• Overall performance.
L		

5.8 Solid Works

Name of the Course	:	Solid works
Duration	:	06 Weeks (210 Hours)
Schedule	:	As per Discussion.
Nomination Deadline	:	As per Demand.
Number of Seats	:	20
Course fee	:	7,500/-
Target Group	:	BSc. in Engineering, Diploma in Engineering, TTC/ HSC (Voc)
Course Objects	:	 Understanding and Duration of working and assembly drawing; Introducing the importance of computer aided design (CAD); Learn about innovation of design and design modification. Know about the application of solid works drawing
Course Contents	:	 Mechanical Drafting Solid works-2D Solid works-3D Assembly drawing Special Fixture drawing
Training Methodology	:	 Observation Question and answer Individual exercise Oral test Overall performance.
Evaluation System	:	 Observation Question and answer Individual exercise Oral test Overall performance.

6. SHORT TERM TECHNICAL TRAINING PROGRAM BITAC, DHAKA. 6.1 Programmable Logic Controller (PLC)

Name of the Course	:	Drogrammable Logic Controller (DLC)		
	ľ.	Programmable Logic Controller (PLC)		
Duration	:	02 Weeks (70 Hours)		
Schedule	:	23 Jul 2023 to 03 Aug 2023, 01 Oct 2023 to 12 Oct 2023, 21 Jan 2024 to 01 Feb 2024 and 01 Apr 2024 to 12 Apr 2024; For course no: 67, 68, 69 and 70 respectively.		
Nomination Deadline	:	20 Jul 2023, 27 Sep 2023, 18 Jan 2024 and 29 Mar 2024; For course no: 67, 68, 69, 70 and 71 respectively.		
Number of Seats		20		
Course fee	:	7,500/-		
Target Group	:	Candidates having BSc. in Engineering and Graduation in Applied Physics, Diploma in Engineering		
Course Objects	:	 To describe functions and uses of PLC To develop PLC program for industrial process To modify existing Really Control System into PLC System To install PLC system in a process plant To maintain and troubleshoot the PLC system. 		
Course Contents	•	 Introduction to PLC Conventional Relay Control System Functional description of PLC Basic function block of PLC Introduction to programming Sensors & Actuators Relay types Instructions Timer & Counter Instruction Loop creating sequencer Instruction Process operation by PLC at BITAC pilot plant 		
Training Methodology	:	 Class-room lecture Group discussion Practical exercise Industrial visit Demonstration 		
Evaluation System	:	 Observation Question and answer Individual exercise Oral test Overall performance. 		

6.2 Boiler Operation and Maintenance

Name of the Course	Boiler Operation and Maintenance
Duration	:01Week (35 Hours)
Schedule	:09 Jul 2023 to 13 Jul 2023, 30 July 2023 to 03 Aug 2023, 27 Aug 2023
Selleduie	to 31 Aug 2023, 17 Sep 2023 to 21 Sep 2023, 15 Oct 2023 to 19 Oct
	2023, 26 Nov 2023 to 30 Nov 2023, 17 Dec 2023 to 21 Dec 2023, 01
	Apr 2024 to 05Apr 2024 and 06 May 2024 to 10 May 2024;
	For Course no: 48, 49, 50, 51, 52, 53, 54, 55 and 56 respectively.
Nomination deadline	:06 Jul 2023, 27 Jul 2023, 24 Aug 2023, 14 Sep 2023, 12 Oct 2023,
	23 Nov 2023,14 Dec 2023, 29 Mar 2024 and 03 May 2024;
	For Course no: 48, 49, 50, 51, 52,53,54,55 and 56 respectively.
Number of Seats	: 20
Course fee	: 3,500/-
Target Group	: Entrepreneur, Technical staffs working in the industries like
	Sugar Mills, Textiles, Power Plant passed at least Class eight
	pass/equivalent.
Course Objects	: • Skill development on Boiler;
5	• Developing knowledge on Acts, rules and
	regulations;
	• Awareness on Safety and maintenance.
Course Contents	• Water circuit
	 Fuel circuit
	 Boiler construction
	 Boiler Maintenance
	 Safety
	Troubleshooting
	 Act, rules & regulations
	 Inspection & regulations procedure
	 Control system
Training Methodology	: • Class-room lecture
0 01	Group discussion
	Practical exercise
	Demonstration
Evaluation System	: • Observation
	• Question and answer
	• Oral test
	• Overall performance.

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

7.1 Machine Shop Practice

Name of the Course	Machine Shop Practice			
Duration	: 360 Hours			
Schedule	: 03 Sep 2023 to 30 Nov 2023; For Batch no: 8 th at BITAC-			
	Dhaka.			
	: 16 Jul 2023 to 10 Oct 2023 and 03 Sep 2023 to 28 Nov 2023; For			
	Batch no: 8 th and 9 th respectively at BITAC- Khulna.			
	16 Jul 2023 to 10 Oct 2023 and 03 Sep 2023 to 28 Nov 2023; For			
	Batch no: 8 th and 9 th respectively at BITAC-Bogura.			
	23 Aug 2023; For Batch no: 8 th at BITAC- Dhaka			
	: 13 July 2023 and 30 Aug 2023; For Batch no: 8 th and 9 th			
Application deadline	respectively at BITAC-Khulna			
	13 July 2023 and 30 Aug 2023; For Batch no: 8th and 9th			
	respectively at BITAC-Bogura .			
Number of Seats	30			
Course Fee	Free			
Target Group	: Minimum Qualification: JSC pass or Equivalent			
	Age Limit: 18 to 45 Years			
Course Objects	 To perform Computations Using Basic 			
	Mathematical Concepts			
	• To apply Occupational Health and Safety			
	(OHS) Practices in the Workplace			
	• To interpret Technical Drawings and Plans			
	Carry out Bench Working Operations			
	• To perform Drilling, Lathe, Milling, Shaper and			
	Precision Grinding Machine Operations			
Course Contents	 To operate in a Self-Directed Team 			
	• To communicate in English in the Workplace			
	• To perform Computations Using Basic			
	Mathematical Concepts			
	• To work with Mechanical Hand & Power Tool			
	Carry Out Precision Checks & Measurements			
	To apply Quality System and Procedures			
Training Methodology	Class-room lecture			
	 Group discussion Practical exercise 			
	 Practical exercise Demonstration 			
Evaluation System	: • Observation			
	• Question and answer			
	• Oral test			
	• Overall performance.			

7.2 Electrical Installation and Maintenance

Name of the Course	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Schedule	:	03 Sep 2023 to 30 Nov 2023; For Batch no: 8th at BITAC- Dhaka
		16 Jul 2023 to 10 Oct 2023 and 03 Sep 2023 to 28 Nov 2023; For
		Batch no: 8 th and 9 th respectively at BITAC- Khulna.
		16 Jul 2023 to 10 Oct 2023 and 03 Sep 2023 to 28 Nov 2023; For
		Batch no: 8 th and 9 th respectively at BITAC-Bogura.
		23 Aug 2023; For Batch no: 8 th at BITAC- Dhaka
		13 July 2023 and 30 Aug 2023; For Batch no: 8 th and 9 th
Application deadline		respectively at BITAC-Khulna
		13 July 2023 and 30 Aug 2023; For Batch no: 8th and 9th
		respectively at BITAC-Bogura.
Number of Seats	:	30
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent
0 1		Age Limit: 18 to 45 Years
Course Objects	:	Use basic mathematical concepts
·		 Interpret Drawings and Specifications In
		Electrical Installation
		• To perform Channel and Conduit Wiring
		• Install Earthing and Atmospheric Lightning
		Protection System
		• To perform service and motor connection
		• Install and maintain electric motor with control system.
		• To perform motor rewinding and servicing
		• Install and Troubleshoot Solar Electrical System.
Course Contents	:	Carry out Workplace Interaction
		• To apply OHS Practices in the Workplace
		• Use Hand and Power Tools for Electrical Works
		• To perform Motor Rewinding Servicing and Motor
		Connection
		• To interpret Drawing & Specifications in Electrical
		Installation
		 Install and Maintain Electric Motor with Control System
		 Install and Troubleshoot Solar Electrical System
		 To perform Conduit Wiring, Service Connection
		and Channel Wiring
Training Methodology	:	Class-room lecture
gououology	ľ	Group discussion
		Practical exercise
		Demonstration
Evaluation System	:	Observation
		Question and answer
		Oral testOverall performance.

7.3 Welding

Name of the Course	: Welding
Duration	: 360 Hours
Schedule	03 Sep 2023 to 30 Nov 2023; For Batch no: 8 th at BITAC- Dhaka.
	16 Jul 2023 to 10 Oct 2023 and 03 Sep 2023 to 28 Nov 2023; Fo
	Batch no: 8 th and 9 th respectively at BITAC- Khulna.
	16 Jul 2023 to 10 Oct 2023 and 03 Sep 2023 to 28 Nov 2023; Fo
	Batch no: 8 th and 9 th respectively at BITAC-Bogura .
	23 Aug 2023; For Batch no: 8 th at BITAC- Dhaka
A	13 July 2023 and 30 Aug 2023; For Batch no: 8 th and 9 th
Application deadline	respectively at BITAC-Khulna
	13 July 2023 and 30 Aug 2023; For Batch no: 8 th and 9 th
Number of Seats	respectively at BITAC-Bogura. : 30
Course Fee	: Free
Target Group	: Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	Age Limit: 18 to 45 Years To perform Computations Using Basic Mathematical
Course Objects	Concepts
	 To communicate in English in the Workplace
	 To operate in a Self-Directed Team
	 To interpret Technical Drawings and Manuals
	• To work with Mechanical Hand and Power Tools
	 Carry Out Precision Checks and Measurements
	• To apply Quality Systems and Procedures
	• To apply fundamentals of welding metallurgy
	• Carry Out Shielded Metal Arc Welding (SMAW)
	• To perform Gas welding, Gas cutting, Brazing and
	Soldering
	• Carry out Gas Tungsten Arc Welding (TIG)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Carry out Gas Metal Arc Welding (MIG)
Course Contents	To operate in a Self-Directed Team
	• To apply Occupational Health & Safety(OHS) Practices in
	the Workplace
	<ul> <li>Fundamental of Welding Metallurgy</li> <li>To work with Mechanical Hand &amp; Power Tools</li> </ul>
	<ul> <li>Apply Quality System &amp; Procedures</li> <li>To interpret Technical Drawings &amp; Manuals</li> </ul>
	<ul> <li>Gas welding, Gas cutting, Brazing and Soldering</li> </ul>
	<ul> <li>Gas weiding, Gas cutting, Brazing and Soldering</li> <li>Shielded Metal Arc Welding</li> </ul>
Training Methodology	: • Class-room lecture
running methodology	Group discussion
	Practical exercise
	Demonstration
Evaluation System	: • Observation
	• Question and answer
	• Oral test
	Overall performance.

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

## 7.4 Machine Shop Practice

Name of the Course	: Machine Shop Practice
Duration	: 360 Hours
Schedule	. 16 Jul 2023 to 03 Oct 2023 and 04 Oct 2023 to 21 Dec 2023; For Batch no: 9 th and 10 th respectively.
Application deadline	13 Jul 2023 and 03 Oct 2022;For Batch no:9thand 10th respectively.
Number of Seats	: 30
Course Fee	: Free
Target Group	: Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	<ul> <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> <li>To operate in a Self-Directed Team</li> <li>To communicate in English in the Workplace</li> <li>To perform Computations Using Basic</li> <li>Mathematical Concepts</li> <li>To apply Occupational Health &amp; Safety(OHS)</li> <li>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> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

## 7.5 Electrical Installation and Maintenance

Name of the Course	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Schedule	:	16 Jul 2023 to 03 Oct 2023 and 04 Oct 2023 to 21 Dec 2023; For Batch no: $9^{th}$ and $10^{th}$ respectively.
Application deadline	:	13 Jul 2023 and 03 Oct 2022; For Batch no:9 th and 10 th respectively.
Number of Seats	:	30
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	:	<ul> <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> <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	••	Class-room lecture Group discussion Practical exercise Demonstration
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 7.6 Welding

Name of the Course	:	Welding
Duration	:	360 Hours
Schedule	:	16 Jul 2023 to 03 Oct 2023 and 04 Oct 2023 to 21 Dec 2023; For Batch no: 9 th and 10 th respectively.
Application deadline		13 Jul 2023 and 03 Oct 2022; For Batch no:9 th and 10 th respectively.
Number of Seats		30
Course Fee		Free
Target Group		Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects		<ul> <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> <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> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <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 7.7 Electrical Installation and Maintenance

Name of the Course	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Schedule	:	13 Aug 2023 to 08 Nov 2023 (Morning Shift) and 13 Aug 2023 to 08 Nov 2023 (Day Shift); For Batch no: 9 th and 10 th respectively.
Application deadline		10 Aug 2023; For Batch no:9 th and 10 th .
Number of Seats	:	30
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	:	<ul> <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> <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> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 7.8 Welding

_

Name of the Course	:	Welding
Duration	:	360 Hours
Schedule	:	13 Aug 2023 to 08 Nov 2023 (Morning Shift) and 13 Aug 2023 to 08 Nov 2023 (Day Shift); For Batch no: 9 th and 10 th respectively.
Application deadline		10 Aug 2023; For Batch no:9 th and 10 th .
Number of Seats	••	30
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent Age Limit: 18 to 45 Years
Course Objects	:	<ul> <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> <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</li> <li>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> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

#### 8 Skills for Employment Investment Program-2 (SEIP-2), BITAC- Dhaka, Chottogram, Khulna, Bogura, Chandpur 8.1 Electrical Installation and Maintenance

Name of the Course	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 29 Mar 2024 and
		01 Apr 2024 to 28 Jun 2024;
		For Batch no: 1 st and 2 nd respectively. 28 Dec 2023; For Batch no:1 st and 29 Mar 2024 For
Application deadline		
		Batch no:2 nd .
Number of Seats	:	20
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent
		Age Limit: 18 to 45 Years
Course Objects	:	Use basic mathematical concepts
		Carryout Workplace Interaction
		• To apply OSH Practices in the Workplace
		<ul> <li>Interpret Drawings and Specifications In</li> </ul>
		Electrical Installation
		• Use Hand and Power Tools for Electrical Works
		• To perform Channel and Conduit Wiring
		<ul> <li>Install Earthing and Atmospheric Lightning</li> </ul>
		Protection System
		<ul> <li>To perform service and motor connection</li> </ul>
		<ul> <li>Install and maintain electric motor with control system.</li> </ul>
		• To perform motor rewinding and servicing
		• Install And Troubleshoot Solar Electrical System.
Course Contents	:	Use Basic Mathematical Concepts
		• Carry out Workplace Interaction
		• To apply OHS Practices in the Workplace
		<ul> <li>Use Hand and Power Tools for Electrical Works</li> </ul>
		<ul> <li>To perform Motor Rewinding Servicing and Motor</li> </ul>
		Connection
		<ul> <li>To interpret Drawing &amp; Specifications in Electrical</li> </ul>
		Installation
		<ul> <li>Install and Maintain Electric Motor with Control System</li> </ul>
		<ul> <li>Install and Maintain Electric Motor with Control System</li> <li>Install and Troubleshoot Solar Electrical System</li> </ul>
		<ul> <li>Instant and Troubleshoot Solar Electrical System</li> <li>To perform Conduit Wiring, Service Connection</li> </ul>
		and Channel Wiring
Training Methodology		Class-room lecture
ranning wiethouology		<ul> <li>Group discussion</li> </ul>
		<ul> <li>Practical exercise</li> </ul>
		<ul> <li>Demonstration</li> </ul>
Evaluation System	:	Observation
L valuation System	· ·	<ul> <li>Question and answer</li> </ul>
		<ul> <li>Oral test</li> </ul>
	1	

# Skills for Employment Investment Program-2 (SEIP-2), BITAC- Dhaka, Chottogram, Khulna, Bogura, Chandpur

## 8.2 Welding

-

8.2 weiding	-	
Name of the Course	:	Welding
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 29 Mar 2024 and
		01 Apr 2024 to 28 Jun 2024;
		For Batch no: 1 st and 2 nd respectively. 28 Dec 2023; For Batch no:1 st and 29 Mar 2024 For
Application deadline		28 Dec 2023; For Batch no:1 st and 29 Mar 2024 For
		Batch no:2 nd .
Number of Seats	:	20
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent
		Age Limit: 18 to 45 Years
Course Objects	:	• To perform Computations Using Basic Mathematical
		Concepts
		<ul> <li>To apply OHS Practices in the Workplace</li> <li>To communicate in English in the Workplace</li> </ul>
		- To communicate in English in the Workplace
		• To operate in a Self-Directed Team
		<ul> <li>To interpret Technical Drawings and Manuals</li> <li>To work with Machanical Hand and Dawar Technical</li> </ul>
		• To work with Mechanical Hand and Power Tools
		• Carry Out Precision Checks and Measurements
		<ul> <li>To apply Quality Systems and Procedures</li> </ul>
		• To apply fundamentals of welding metallurgy
		• Carry Out Shielded Metal Arc Welding (SMAW)
		• To perform Gas welding, Gas cutting, Brazing and
		Soldering
		<ul> <li>Carry out Gas Tungsten Arc Welding (TIG)</li> </ul>
		• Carry out Gas Metal Arc Welding (MIG)
Course Contents	:	<ul> <li>To operate in a Self-Directed Team</li> </ul>
		<ul> <li>To communicate in English in the Workplace</li> </ul>
		• To apply Occupational Health & Safety(OHS) Practices
		in the Workplace
		<ul> <li>Fundamental of Welding Metallurgy</li> </ul>
		<ul> <li>To work with Mechanical Hand &amp; Power Tools</li> </ul>
		<ul> <li>Apply Quality System &amp; Procedures</li> </ul>
		• To interpret Technical Drawings & Manuals
		• Gas welding, Gas cutting, Brazing and Soldering
		• Shielded Metal Arc Welding
Training Methodology	:	Class-room lecture
g		• Group discussion
		<ul> <li>Practical exercise</li> </ul>
		• Demonstration
Evaluation System	:	Observation
L'ulution System	·	<ul> <li>Question and answer</li> </ul>
		<ul> <li>Oral test</li> </ul>
		<ul> <li>Overall performance.</li> </ul>
L	I	o terait performance.

# Skills for Employment Investment Program-2 (SEIP-2), BITAC- Dhaka, Chottogram, Khulna, Bogura.

## 8.3 Machine Shop Practice

Name of the Course	:	Machine Shop Practice
Duration	:	360 Hours
		01 Jan 2024 to 29 Mar 2024 and
Schedule		01 Apr 2024 to 28 Jun 2024;
Seneaule		For Batch no: $1^{st}$ and $2^{nd}$ respectively.
		28 Dec 2023; For Batch no:1 st and 29 Mar 2024 For
Application deadline	:	Batch no:2 nd .
Number of Seats	:	20
Course Fee	:	Free
Target Group	:	Minimum Qualification: JSC pass or Equivalent
8 8 1 1 I		Age Limit: 18 to 45 Years
Course Objects	:	To perform Computations Using Basic
5		Mathematical Concepts
		• To apply Occupational Health and Safety
		(OHS) Practices in the Workplace
		<ul> <li>To communicate in English in the Workplace</li> </ul>
		<ul> <li>To operate in a Self-Directed Team</li> </ul>
		<ul> <li>To interpret Technical Drawings and Plans</li> </ul>
		<ul> <li>To work with Mechanical Hand and Power Tools</li> </ul>
		To carry Out Precision Checks and Measurements
		To apply Quality System and procedures
		Carry out Bench Working Operations
		• To perform Drilling, Lathe, Milling, Shaper and
		Precision Grinding Machine Operations
Course Contents	:	• To operate in a Self-Directed Team
		• To communicate in English in the Workplace
		• To perform Computations Using Basic Mathematical Concepts
		<ul> <li>To apply Occupational Health &amp; Safety (OHS)</li> </ul>
		Practices in the Workplace
		<ul> <li>To work with Mechanical Hand &amp; Power Tool</li> </ul>
		<ul> <li>Carry Out Precision Checks &amp; Measurements</li> </ul>
		<ul> <li>To apply Quality System and Procedures</li> </ul>
Training Methodology	Ŀ	Class-room lecture
		Group discussion
		Practical exercise
		Demonstration
Evaluation System	:	Observation
		Question and answer
		Oral test
		Overall performance.

# 9. Skills for Employment Investment Program (SEIP), BITAC, Dhaka (Korea Tech)

## 9.1 Factory Automation

Name of the Course	:	Factory Automation
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule		For Batch no:1 st and 2 nd respectively.
Application deadline		21 Dec 2023, 18 Apr 2024.
		For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent.
		Age Limit: 18 to 45 Years
Course Objects	:	Automation is the technique that makes machine, plant
		and process to operate automatically. As industry
		becoming more and more sophisticated by applying
		automation, demanding more skill people who are
		capable to work both the engineering fields. Now days in
		is common to use electrical control system in mechanica
		engineering to reduce the cost and for robust and reliable
		operations. The goal of this course is to prepare the
		engineers and technician for respond the upcoming job
		market.
Course Contents	:	<ul> <li>To operate in a Self-Directed Team</li> </ul>
Course Contents	•	-
		<ul> <li>To communicate in English in the Workplace</li> <li>To apply Occupational Health &amp; Safety (OHS) Practices</li> </ul>
		in the Workplace
		Electrical Sequence Circuit & Control
		• Basic Siemens PLC(SIMATIC-S7)
		• Basic Omron PLC(SYSMAC)
		<ul> <li>Basic LSIS PLC(XGK)</li> <li>Basic Mitsubishi PLC(MELSEC)</li> </ul>
		• PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)
		<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control</li> </ul>
		<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> </ul>
		<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC</li> </ul>
Training Methodology	•	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> </ul>
Training Methodology	:	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>Class-room lecture</li> </ul>
Training Methodology	:	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>Class-room lecture</li> <li>Group discussion</li> </ul>
Training Methodology	:	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> </ul>
	:	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Training Methodology Evaluation System	:	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> <li>Observation</li> </ul>
	:	<ul> <li>PLC communication (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC Position &amp; Servo Control (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>PLC AD/DA &amp; HSC (SIMATIC/SYSMAC/XGK/MELSEC)</li> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>

# 9.2 Pneumatics & Hydraulics

Name of the Course	•	Pneumatics & Hydraulics
Duration	:	360 Hours
Duration	•	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule	•	For Batch no: $1^{st}$ and $2^{nd}$ respectively.
		21 Dec 2023, 18 Apr 2024.
Application deadline		For Batch no: $1^{st}$ and $2^{nd}$ respectively.
Number of Seats	:	20
		20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational)
		/ SSC (Vocational) / TTC / SSC or equivalent.
Course Objects		Age Limit: 18 to 45 Years
Course Objects	:	• To understand the principle of hydraulic and
		pneumatics system.
		• To know how a hydraulic system work.
		• To learn about the symbol and components of
		hydraulic and pneumatics system.
		• To learn about hydraulic and pneumatics
		troubleshooting.
		• To learn about hydraulic and pneumatics circuit.
		• To design simple hydraulic and pneumatics circuit.
Course Contents	:	• Apply Occupational Health & Safety (OH&S) Practice
		in the workplace
		<ul> <li>Perform Personal Computer (PC) Application</li> </ul>
		<ul> <li>Interpret Technical drawings and Manuals</li> </ul>
		<ul> <li>Carry Out Precision Checks and Measurements</li> </ul>
		<ul> <li>Apply Quality Systems and procedures</li> </ul>
		<ul> <li>Introduction to Factory Sequence Control</li> </ul>
		Basic Pneumatic & Hydraulic Control
		• Electrical Pneumatic & Hydraulic Control Application
		Pneumatic & Hydraulic Instruments Maintenance
		Proportional Hydraulic Control
		<ul> <li>PLC Sensor &amp; Motor Control</li> </ul>
		PLC Machine Vision Control
Training Methodology	:	Class-room lecture
		Group discussion
		Practical exercise
		• Demonstration
Evaluation System	:	• Observation
		• Question and answer
		• Oral test
		• Overall performance.

# 9.3 FMS (Flexible Manufacturing System)

Name of the Course	:	FMS (Flexible Manufacturing System)
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024, For Batch no: $1^{st}$ and $2^{nd}$ respectively.
Application deadline		21 Dec 2023, 18 Apr 2024. For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>To reduce setup and queue times.</li> <li>Produce more product more quickly</li> <li>Improve efficiency.</li> <li>Utilize human workers better</li> <li>Improve product routing</li> <li>Reduce time for product completion.</li> </ul>
Course Contents	:	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Fundamental Electrical &amp; Electronics</li> <li>Basic Sequence &amp; PLC Control Programing</li> <li>Introduction to FMS</li> <li>Articulated Robot Disassembly/Assembly &amp; Management</li> <li>PLC Sensor, Machine vision &amp; Motor Control</li> <li>Hand-on FMS Total Exercise (Robot Assembling Process)</li> <li>Industrial Articulated Robot Control Application)</li> <li>Mobile Robot Control Using Scratch Block Program</li> <li>Overview of MES &amp; Smart Factory System</li> </ul>
Training Methodology	:	<ul> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

-

# 9.4 Additive Manufacturing

Name of the Course	:	Additive Manufacturing
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024, For Batch no:1 st and 2 nd respectively.
Application deadline		21 Dec 2023, 18 Apr 2024. For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>To design 3D object for 3D printing using 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> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Basic AutoCAD &amp; Solid works Design(2D)</li> <li>Basic 3D Printer Application</li> <li>3D Pinter Slicer SW Application</li> <li>3D Printer Disassembly/Assembly &amp; Maintenance</li> <li>Using Open Source</li> <li>Prototype Manufacture Using AutoCAD 3D Design &amp; 3D Printer</li> <li>Prototype Manufacture Using SolidWorks 3D Design &amp; 3D Printer</li> <li>3D Printing Post Processing Using 3D Scanner &amp; Printer (Case of Mold Manufacture)</li> <li>3D Printing Post Machining Using 3D SW &amp; Printer</li> <li>(Case of Spider Robot Manufacture)</li> <li>3D SW &amp; Printer (Case of Architectural Miniature Manufacture)</li> </ul>
Training Methodology	:	<ul> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 9.5 Autonomous Vehicle

Name of the Course	•	Autonomous Vehicle
Duration	:	360 Hours
	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule	•	For Batch no:1 st and 2 nd respectively.
		21 Dec 2023, 18 Apr 2024.
Application deadline		For Batch no:1 st and $2^{nd}$ respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) /
Tunger oroup	•	SSC (Vocational) / TTC / SSC or equivalent.
		Age Limit: 18 to 45 Years
Course Objects	:	To learn autonomous vehicle image processing
		To learn driving system maintenance
		To learn autonomous vehicle control
		To learn Hands-free steering
		• To learn Adaptive cruise control (ACC) down to a
		stop
		To learn Lane-centering steering
		To develop skill manpower
Course Contents	:	• Apply Occupational Health & Safety (OH&S) Practice
		in the workplace
		Perform Personal Computer (PC) Application
		<ul> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> </ul>
		<ul> <li>Carry Out Precision Checks and Measurements</li> <li>Fundamental of Autonomous Vehicle</li> </ul>
		<ul> <li>Path tracking algorithm for autonomous vehicles</li> </ul>
		<ul> <li>Introduction to Autonomous Vehicle Control</li> </ul>
		<ul> <li>Introduction to Autonomous Vehicle ADAS</li> </ul>
		Sensor
		Introduction to Autonomous Vehicle Communication
		(CAN, LIN)
		<ul> <li>Autonomous Vehicle Radar/Lidar Sensor</li> </ul>
		Hybrid/Autonomous Vehicle Communication System
		Maintenance
		Hybrid/Autonomous Vehicle Convenience & Driving
		<ul> <li>System Maintenance</li> <li>Autonomous Vehicle Embedded System Programing</li> </ul>
		<ul> <li>Autonomous Venicle Embedded System Programing</li> <li>Autonomous Vehicle Image Processing</li> </ul>
Training Methodology	:	Class-room lecture
ranning wiethouology	•	<ul> <li>Group discussion</li> </ul>
		<ul> <li>Practical exercise</li> </ul>
		• Demonstration
Evelvetier C. dur	<u> </u>	• Observation
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> </ul>
		<ul> <li>Question and answer</li> <li>Oral test</li> </ul>
		<ul> <li>Overall performance.</li> </ul>
	L	o voran portormaneo.

# 9.6 Autonomous Drone Application

Name of the Course	:	Autonomous Drone Application
Duration		360 Hours
Duration	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule	•	For Batch no: $1^{st}$ and $2^{nd}$ respectively.
		21 Dec 2023, 18 Apr 2024.
Application deadline		For Batch no:1 st and $2^{nd}$ respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) /
		SSC (Vocational) / TTC / SSC or equivalent.
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Age Limit: 18 to 45 Years
Course Objects	:	To learn basic drone navigation
		<ul> <li>To learn basic drone photographing</li> </ul>
		• To learn drone control system
		<ul> <li>To learn IoT programming based on Arduino</li> </ul>
		To develop skill manpower
Course Contents		• Apply Occupational Health & Safety (OH&S) Practice
		in the workplace
		<ul> <li>Perform Personal Computer (PC) Application</li> </ul>
		<ul> <li>Interpret Technical drawings and Manuals</li> </ul>
		<ul> <li>Carry Out Precision Checks and Measurements</li> </ul>
		<ul> <li>Fundamental of Drone technology</li> </ul>
		• Aviation Regulation & Aviation Regulation Simulation
		Practice
		<ul> <li>Basic Drone Navigation</li> </ul>
		Basic Drone Photographing
		<ul> <li>Basic IoT Programing Based on Arduino</li> </ul>
		• Drone Video Photographing (Documentary Type)
		• Drone Navigation and Photographing (Rotation Wings)
		• Drone Navigation and Photographing (Fixed Wings)
		<ul> <li>Drone Control &amp; Navigation Using Arduino</li> </ul>
		Programing
		Drone Navigation and VR 3600 Photographing
Training Methodology	:	Class-room lecture
		Group discussion
		Practical exercise
		• Demonstration
Evaluation System	:	• Observation
L'aluation System	•	<ul> <li>Question and answer</li> </ul>
		• Oral test
		• Overall performance.
	l	overan performance.

# 9.7 Alternative Energy

Name of the Course	:	Alternative Energy
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024, For Batch no:1 st and 2 nd respectively.
Application deadline		21 Dec 2023, 18 Apr 2024. For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	••	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	••	<ul> <li>To learn solar photovoltaic plant design</li> <li>To learn fundamental of alternative energy</li> <li>To learn wind power plant management &amp; maintenance</li> <li>Fresh skilled workforce can fill the skills gap.</li> <li>Meets our local &amp; oversees demand by re-skilling and up-skilling training.</li> </ul>
Course Contents	•	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> <li>Fundamental Alternative Energy</li> <li>Solar Photovoltaic Fundamental Practice</li> <li>Wind Power Generation Fundamental Practice</li> <li>Solar Photovoltaic Module/Inverter &amp; Distribution</li> <li>System Link</li> <li>SAPV/BIPV System &amp; Plant Maintenance</li> <li>Wind Power Control Using HILS &amp; Wind SIM</li> <li>Solar Photovoltaic Plant Design Using Ecotect &amp; Solar</li> <li>Pro</li> <li>Wind Power Plant Management &amp; Maintenance</li> </ul>
Training Methodology	:	<ul> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 9.8 Electrical & Electronics Design

Name of the Course	:	Electrical & Electronics Design
Duration	:	360 Hours
Calcadarila	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule		For Batch no:1 st and 2 nd respectively.
Application deadline		21 Dec 2023, 18 Apr 2024.
Application deadline		For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>To learn electronics circuit schematic work.</li> <li>To learn CAD- electrical design application</li> <li>To learn PCB Artwork Using or CAD Layout</li> <li>Fresh skilled workforce can fill the skills gap.</li> <li>Meets our local &amp; oversees demand by re-skilling and up-skilling training.</li> </ul>
Course Contents	:	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> <li>Fundamental Electrical &amp; Electronics</li> <li>Electronics Circuit(Level-1)</li> <li>Electronics Circuit Schematic Work Using Altium Designer</li> <li>Electrical Drawing Work Using AutoCAD- Electrical</li> <li>Electronics Circuit Schematic Work Using or CAD Capture</li> <li>Electronics Circuit(Level-2)</li> <li>PCB Artwork Using Altium Designer</li> <li>AutoCAD-Electrical Design Application</li> <li>PCB Artwork Using or CAD Layout</li> <li>Electronics Circuit Simulation Modeling Using PSPICE</li> <li>Electrical Facilities Design Using E-PLAN</li> </ul>
Training Methodology	:	<ul> <li>Electrical Factifies Design Using E-PLAN</li> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 9.9 Electrical Machine

Name of the Course	:	Electrical Machine
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024, For Batch no:1 st and 2 nd respectively.
Application deadline		21 Dec 2023, 18 Apr 2024. For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>Capable of utilizing the latest knowledge and technique in electrical machine</li> <li>To learn electrical instrument design, manufacture &amp; maintenance</li> <li>To learn electrical instrument control</li> <li>Fresh skilled workforce can fill the skills gap.</li> <li>Meets our local &amp; oversees demand by re-skilling and up-skilling training.</li> </ul>
Course Contents	:	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> <li>Fundamental Electrical Instrument</li> <li>Electrical Instrument Disassembly &amp; Assembly</li> <li>Electrical Instrument Manufacture (Level-1) (Single Phase Induction Motor Coil Winding)</li> <li>Electrical Instrument Manufacture (Level-2) (3-Phase Induction Motor &amp; Transformer Coil Winding)</li> <li>Electrical Instrument Control (Level-1) (DC Machine)</li> <li>Electrical Instrument Control (Level-2)</li> <li>(Inductive/Synchronous Machine &amp; Transformer)</li> <li>Electrical Instrument Design Exemplification &amp; Maintenance (Explosion-Proof Type)</li> </ul>
Training Methodology	:	<ul> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 9.10 Electrical Facilities

Name of the Course	:	Electrical Facilities
Duration	:	360 Hours
	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule		For Batch no:1 st and 2 nd respectively.
A		21 Dec 2023, 18 Apr 2024.
Application deadline		For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>Increase use of intelligence device in new commercial, residential &amp; industrial wiring &amp; instrumentation.</li> <li>Capable of utilizing the latest knowledge and technique in electrical installation and maintenance.</li> <li>Fresh skilled workforce can fill the skills gap.</li> <li>Meets our local &amp; oversees demand by re-skilling and up-skilling training.</li> </ul>
Course Contents	:	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> <li>Basic Electric Work</li> <li>Electric Plumbing Work</li> <li>Electric Power Control Panel Work with Sequence Circuit (Level-1)</li> <li>Electrical Instrument Control (Level-2) (Inductive/Synchronous Machine &amp; Transformer)</li> <li>Low Voltage Electric Installation Management</li> <li>Electric Power Panel Management</li> <li>Power Transmission System</li> <li>Power Distribution System</li> </ul>
Training Methodology	:	<ul> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	:	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 9.11 Machine Shop Practice

Name of the Course	:	Machine Shop Practice
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024,
Schedule		For Batch no:1 st and 2 nd respectively.
Application deadline		21 Dec 2023, 18 Apr 2024.
ripplication acadime		For Batch no:1 st and 2 nd respectively.
Number of Seats	:	20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>Understanding of mechanical engineering drawing.</li> <li>Informing different machining parameters</li> <li>Introducing design of tools and cutter</li> <li>Make capable of measuring using different measuring instruments.</li> <li>Identification different materials</li> <li>To perform lathe operations</li> <li>To perform milling operations</li> <li>To perform grinding operations</li> </ul>
Course Contents	:	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> <li>Basic Lathe</li> <li>Basic Surface Grinding</li> <li>Lathe Application</li> <li>Milling Application</li> <li>Basic CNC Lathe</li> <li>Basic Machining Center</li> <li>CNC Lathe Application</li> <li>Machining Center Application</li> <li>Class-room lecture</li> </ul>
Training Wethodology	•	<ul> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	•	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

# 9.12 CAD-CAM Lathe and Milling

N. 64 G		
Name of the Course	:	CAD-CAM Lathe and Milling
Duration	:	360 Hours
Schedule	:	01 Jan 2024 to 28 Mar 2024, 28 Apr to 25 Jul 2024, For Batch no:1 st and $2^{nd}$ respectively.
Application deadline		21 Dec 2023, 18 Apr 2024. For Batch no:1 st and 2 nd respectively.
Number of Seats		20
Course Fee	:	
Target Group	:	B.Sc. Engineering /Diploma Engineering / HSC (Vocational) / SSC (Vocational) / TTC / SSC or equivalent. Age Limit: 18 to 45 Years
Course Objects	:	<ul> <li>To understand the principle of CNC milling/lathe operation</li> <li>To know how to operate CNC milling/lathe operation</li> <li>To learn CNC basic programming</li> <li>To know how to reduce machining time</li> <li>To design product in software and cut in machine</li> </ul>
Course Contents	:	<ul> <li>Apply Occupational Health &amp; Safety (OH&amp;S) Practice in the workplace</li> <li>Perform Personal Computer (PC) Application</li> <li>Interpret Technical drawings and Manuals</li> <li>Carry Out Precision Checks and Measurements</li> <li>Perform CNC Lathe operation</li> <li>Perform CNC machining center operation</li> <li>Create a model using CAD software</li> <li>Apply CAM for computer-aided machining</li> <li>Perform multi-axis machining</li> </ul>
Training Methodology	:	<ul> <li>Class-room lecture</li> <li>Group discussion</li> <li>Practical exercise</li> <li>Demonstration</li> </ul>
Evaluation System	•	<ul> <li>Observation</li> <li>Question and answer</li> <li>Oral test</li> <li>Overall performance.</li> </ul>

## 10 Accelerating and Strengthening Skills for Economic Transformation (ASSET). (Probable Commencing Schedule:01-01-2024)

10.1 BITAC-Dhaka & Bogura.

S.I No	Name of the Course	Duration (Hours)	No. of Seats/ Course	Course Fee
1	Boiler Operation & Maintenance	360	20	Free
Targ	get Group	Candidate having SSC or equivalent certificate along with technical experience, TTC/VTI certificate holders, Diploma in Engineering.		

## 10.2 BITAC-Chattogram

S.I No	Name of the Course	Duration (Hours)	No. of Seats/ Course	Course Fee
1 2	Refrigeration and Air conditioning Welding	360	20	Free
Target Group       Candidate having SSC or equivalent certificate with technical experience, TTC/VTI certificate Diploma in Engineering.				

## 10.3 BITAC, Chandpur

S.I No	Name of the Course	Duration (Hours)	No. of Seats/ Course	Course Fee
1	Electrical Installation & Maintenance	360	20	Free
Targ	get Group	Candidate having SSC or eq with technical experience, TT Diploma in Engineering.		U

## 10.4 BITAC, Khulna

S.I No	Name of the Course	Duration (Hours)	No. of Seats/ Course	Course Fee
1	Welding	360	20	Free
Targ	get Group	Candidate having SSC or eq with technical experience holders, Diploma i	, TTC/VTI cert	tificate

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

## 11.1 BITAC, Dhaka. (For Female)

S.I No.	Name of the Course	Schedule	No. of Seats/ Course	Course Fee
1	Machine Shop			
2	Mobile Servicing			
3	Electrical Maintenance	From 01 Jul 2023 to 28 Sep 2023 for		
4	Refrigeration & Air conditioning	From 01 Oct 2023 to 28 Sep 2023 for the 9 th batch From 01 Oct 2023 to 29 Dec 2023 for		Free
5	Auto CAD	From 01 Jan 2024 to 31 Mar 2024 for the 11 th batch	30	
6	House Hold Appliance Maintenance			
7	Handicraft	From 01 Apr 2024 to 29 Jun 2024 for		
8	Plastic Processing (General)	the 12 th batch		
9	Plastic Processing (Customized)			
	Target Group	Minimum 8th/ JSC pass and Age Limit:	18 to 30 Years	8

11.2 BITAC, Dhaka. (For Male)

S.I No.	Name of the Course	Time Schedule	No. of Seats/ Course	Course Fee
1	Machine Shop			
2	Electronics			
3	Electrical Maintenance	From 01 Jan 2024 to 31 Mar 2024 for		
4	Refrigeration & Air	the $11^{\text{th}}$ batch		
т	Conditioning	From 01 Apr 2024 to 29 Jun 2024 for	30	Free
5	Auto CAD	the 12 th batch		
6	Computer Hardware	the 12 batch		
0	Maintenance			
7	Welding			
	Target Group	Minimum 8th/ JSC pass and Age Limit: 18 to 30 Years		

## 11.3 BITAC, Chattogram, Khulna and Bogura. (For Male)

S.I No.	Name of the Course	Schedule	No. of Seats/ Course	Course Fee
1	Welding (Arc & Gas)	From 01 Jul 2023 to 28 Sep 2023 for the 9 th batch From 01 Oct 2023 to 29 Dec 2023 for		
2	Electrical Maintenance	the 10 th batch From 01 Jan 2024 to 31 Mar 2024 for	30	Free
3	Refrigeration & Air Conditioning	the 11 th batch From 01 Apr 2024 to 29 Jun 2024 for the 12 th batch		
	Target Group	Minimum 8th/ JSC pass and Age Li	mit: 18 to 30 Y	<i>'ears</i>

11.4 BITAC, Chattogram, Khulna and Bogura. (For Female)

S.I No.	Name of the Course	Schedule	No. of Seats/ Course	Course Fee
1	Mobile Servicing	From 01 Jul 2023 to 28 Sep 2023 for the 9 th batch		
2	Electrical Maintenance	From 01 Oct 2023 to 29 Dec 2023 for the 10 th batch From 01 Jan 2024 to 31 Mar 2024	30	Free
3	Refrigeration & Air conditioning	for the 11 th batch From 01 Apr 2024 to 29 Jun 2024 for the 12 th batch		
	Target Group	Minimum 8th/ JSC pass and Age L	imit: 18 to 30	Years

### 11.5 BITAC, Chandpur (For Male)

S.I No.	Name of the Course	Schedule	No. of Seats/ Course	Course Fee
1	Welding (Arc & Gas)	From 01 Jul 2023 to 28 Sep 2023 for the 9 th batch From 01 Oct 2023 to 29 Dec 2023		
2	Machine Shop	for the 10 th batch From 01 Jan 2024 to 31 Mar 2024	30	Free
3	Electrical Maintenance	for the 11 th batch From 01 Apr 2024 to 29 Jun 2024 for the 12 th batch		
Target Group         Minimum 8th/ JSC pass and Age Limit: 18 to 30 Y			Years	

## 12. BITAC, Chattogram.

12.1 Long Term Technical Training Program (Regular)

S.I No	Name of the Course	Cours e No.	Schedule	Duration (Weeks)	No. of Seats	Course Fee
1	Machine Shop	170	20 Aug 2023 to 23 Nov 2023		20	<b>5</b> 000 (
		171 172	03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	20	5,000/-
2	Electrical	170	20 Aug 2023 to 23 Nov 2023			
	Maintenance	171	03 Dec 2023 to 08 Mar 2024	14	20	8,000/-
		172	18 Mar 2024 to 21 Jun 2024			
3	Welding	170	20 Aug 2023 to 23 Nov 2023			
		171	03 Dec 2023 to 08 Mar 2024	14	20	7,500/-
		172	18 Mar 2024 to 21 Jun 2024			
4	Machine	170	20 Aug 2023 to 23 Nov 2023			
	Maintenance	171	03 Dec 2023 to 08 Mar 2024	14	10	5,000/-
		172	18 Mar 2024 to 21 Jun 2024			

## 12.2 Customized Technical Training Program.

Sl. No	Name of the Course	Schedule	Duration (Weeks)	No. of seats	Course Fee
1	Auto CAD (2D & 3D)	As per Discussion	6	6	5,000/-

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

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

# 13. BITAC, Chandpur, Khulna & Bogura

## Long Term Technical Training Program (Regular)

S.I No	Name of the Course	Cours e No	Schedule	Duration (Weeks)	No. of Seats	Course Fee
1	Machine Shop	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	10	5,000/-
2	Electrical Maintenance	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	20	8,000/-
3	Welding	170 171 172	20 Aug 2023 to 23 Nov 2023 03 Dec 2023 to 08 Mar 2024 18 Mar 2024 to 21 Jun 2024	14	20	7,500/-

# 14. Tool & Technology Institute (TTI), BITAC.14.1 Training Program (ASSET, BEIOA-SEIP & Regular)

Sl No	Name of The Course	Course Type	Schedule	Duration (Hours)	No of Seats	Course Fee
1.	CNC Machine Operation	ASSET	01 Jan to 30 Apr 01 May to 30Aug	360 360	20 20	Free
2.	Programmable Logic Controller (PLC)	BEIOA -SEIP	18 Aug to 5 Dec	360	40	Free
3	Mechatronics& PLC	ASSET	01 Jan to 30 Apr 01 May to30Aug	360 360	20 20	Free
4	Hydraulics & Pneumatics	Regular	01 Jul to 30 Sep 01 Nov to 31 Jan 01 Mar to 31 May	360 360 360	10 10 10	10,000
5	CAD/CAM Lathe	Regular	01 Jan to 30 Apr 01 May to30Aug	360 360	15 15	10,000

#### 14.2 Customized Technical Training Program.

Sl. No.	Name of the Course	Schedule	No. of seats	Course Fee	
1	Master CAM				
2	Solid Works				
3	CNC Machine Operation				
4	Intermediate Automation and Control				
4	System				
5	CAD/CAM Lathe	As per	10	10.000/-	
6	CAD/CAM Milling	Discussion	10	10,000/-	
7	3D printing with CAD				
8	Programmable Logic Controller (PLC)				
9	EDM & EDM Wire cut Machine				
9	operation				
10	Hydraulics & Pneumatics				

## 14.3 CNC Machine Operation

	1		
Name of the Course	:	CNC Machine Operation	
Duration	:	18 Weeks	
Schedule	:	01 Jan to 30 Apr, 01 May to 31 Aug	
Nomination Deadline	:	20 Dec 2023, 20 Apr 2024	
Number of Seats	:	20	
Course Fee	:	Free	
Target Group	:	Candidate having B.Sc./Diploma in engineering or equivalent. For technical experience, educational qualification might be compromised.	
Course object	:	<ul> <li>To understand the principle of CNC milling operations.</li> <li>To know how to operate a CNC machine.</li> <li>To learn CNC basic programming.</li> <li>To know how to reduce machining time.</li> <li>To design particular parts and develop them in the machine.</li> <li>To design products in software and cut in the machine.</li> </ul>	
Course Content	:	<ul> <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>Master CAM 2D programming</li> <li>Master CAM 3D programming</li> </ul>	
Training Methodology	:	<ul> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>	
Evaluation System	:	<ul> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>	

## 14.4 Mechatronics & PLC (ASSET)

Name of the Course	:	Mechatronics & PLC	
Duration	:	18 Weeks	
Schedule	:	01 Jan to 30 Apr, 01 May to 31 Aug	
Nomination Deadline	:	20 Dec 2023, 20 Apr 2024	
Number of Seats	:	20	
Course Fee	:	Free	
Target Group	:	Candidate having B.Sc/Diploma in engineering or equivalent. For technical experience educational qualification might be compromised.	
Course object	:	<ul> <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> <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> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>	
Evaluation System	:	<ul> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>	

## 14.5 Programmable Logic Controller (PLC) (BEIOA-SEIP Project)

Name of the Course	:	Programmable Logic Controller (PLC)	
Duration	:	12 Weeks	
Schedule	:	18 Aug 2023 to 05 Dec 2023	
Nomination Deadline	:	13 Aug 2023	
Number of Seats	:	40	
Course Fee	:	Free	
Target Group	:	Candidate having B.Sc./Diploma in engineering or equivalent. For technical experience, educational qualification might be compromised.	
Course object	:	<ul> <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> <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> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>	
Evaluation System	:	<ul> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>	

## 14.6 CAD/CAM Lathe

Name of the Course	:	CAD/CAM Lathe		
Duration	:	12 weeks		
Schedule	:	01 Jan to 30 Apr,01 May to 30Aug		
Nomination Deadline	:	20 Dec 2023, 20 Apr 2024		
Number of Seats	:	15		
Course Fee	:	10,000/-		
Target Group	:	Candidate having B.Sc./Diploma in engineering or equivalent. For technical experience, educational qualification might be compromised.		
Course object	:	<ul> <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> <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>Master CAM 2D programming</li> <li>Master CAM 3D programming</li> </ul>		
Training Methodology	:	<ul> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>		
Evaluation System	:	<ul> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>		

## 14.7 Hydraulics & Pneumatics

Name of the Course	:	Hydraulics & Pneumatics
Duration	:	12 Weeks
Schedule	:	01 Jul to 30 Sep, 01 Nov to 31 Jan and 01 Mar to 31 May
Nomination Deadline	:	20 Jun 2023, 20 Oct 2023, 20 Feb 2024
Number of Seats	:	10
Course Fee	:	10,000/=
Target Group	:	Candidate having B.Sc/Diploma in engineering or equivalent. For technical experience educational qualification might be compromised.
Course object	:	<ul> <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> <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> <li>Theory Classes</li> <li>Demonstration</li> <li>Practice on machine</li> <li>Daily evaluation</li> <li>Motivational session</li> </ul>
Evaluation System	:	<ul> <li>Participation in the session</li> <li>Oral test</li> <li>Written test</li> <li>Evidence guides</li> <li>Practical examination</li> </ul>

#### 15. INDUSTRIAL ATTACHMENT TRAINING PROGRAM, BITAC- Dhaka, Chattogram, Khulna, Bogura, Chandpur and TTL

Chattogram, Khu	ulna, Bogura, Chandpur and TTI.
Name of the	Industrial Attachment Technical Training Program
Course	
Duration	Depends on the participating Institute
Schedule	At any time of the year depending on the participating Institute
Nomination	Depends on the participating Institute
deadline	
Number of Seats	As per Demand
Course fee	As per Govt. rule depending on the sending Institute
Target Group	All the public and private technical universities, polytechnic institutes, TTC, etc.
Course Objects	<ul> <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> </ul>
Course Contents	<ul> <li>Welding and Fabrication</li> <li>Conventional Machine Tool-lathe, milling, grinding, planner, boring, shaper, shearing, drilling 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, EDM</li> <li>Tool and Cutter Grinding,</li> <li>Light Forging</li> <li>Heat-Treatment</li> <li>Patten</li> <li>Foundry</li> </ul>
Training	Group discussion
Methodology	Practical exercise
	• Case study.
Evaluation	Group exercise
	Stoup energiese
System	<ul> <li>Individual exercise</li> </ul>
	*
	Individual exercise