Training Calendar : 2021-2022

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

1 INTRODUCTION

1.1 Background

Bangladesh Industrial Technical Assistance Centre other-wise known as BITAC is the successor to Pakistan Industrial Technical Centre (PITAC). It was renamed BITAC after the independence of Bangladesh. BITAC was established in 1962 by merging two other productivity oriented public sector organizations namely IRDC & PIPS. With the establishment of BITAC practice oriented activities for productivity promotion and improvement of Productivity were created through its laboratory and workshops support. The main objective of BITAC is therefore, promotion of the national economy through development of product, process and skilled manpower. BITAC has Five Centres in Bangladesh at Dhaka, Chittagong, Chandpur, Khulna and Bogra.

Vision & Mission

1.2 OUR VISSION:

• 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"s to explore the new and innovative manufacture and use of spares parts.

1.3 OUR MISSION:

• To upgrade the skills 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 primarily in the private sector.
• To organize programme 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 engaged in activities for increasing industrial productivity.
• To adopt such measures and take such steps and do all such things as many be conducive to the promotion of cordial relations between the Centre and persons interested in the objectives of the Centre.
• To secure the recognition of the Centre in Bangladesh and other foreign counties.
• In conjunction with the upgrading programme and to make it more effective, the BITAC shall:
  - √ Assists in the design and manufacture of newly developed jigs, fixtures, gauges, moulds,dies, punches, tools and products (proto-type0 for industries and agriculture;
  - √ Develop products, processes and tools, etc. to help industries in improving the quality, increase production, reduce cost and utilizing indigenous raw materials and to increase the scope of indigenous manufacture and
  - √ 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 Centre may think identical or conducive to the attainment of any or all the objectives of the Centre mentioned above.

1.4 Advisory Committee

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

1.5 Editorial Committee

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

1.6 Course Conducting Committee

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

1.7 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 Industry	Member
Director General	Bangladesh Industrial Technical Assistance Centre (BITAC)	Member Secretary

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

2.1 Long Term Technical Training Program (Regular)

Sl. No.	Name of the Course	Course No.	Duration [Regular]	Practicing Weeks	No. of seats
1	Machine Shop	163	25 July 2021 to 28 Oct 2021	14	25
		164	14 Nov 2021 to 17 Feb 2022	14	25
		165	06 Mar 2022 to 16 June 2022	14	25
2	Electrical Maintenance	163	25 July 2021 to 28 Oct 2021	14	25
		164	14 Nov 2021 to 17 Feb 2022	14	25
		165	06 Mar 2022 to 16 June 2022	14	25
3	Welding	163	25 July 2021 to 28 Oct 2021	14	25
		164	14 Nov 2021 to 17 Feb 2022	14	25
		165	06 Mar 2022 to 16 June 2022	14	25
4	Machine Maintenance	162	25 July 2021 to 28 Oct 2021	14	25
		163	14 Nov 2021 to 17 Feb 2022	14	25
		165	06 Mar 2022 to 16 June 2022	14	25
5	Automobile & Autoelectrcity	162	25 July 2021 to 28 Oct 2021	14	10
		163	14 Nov 2021 to 17 Feb 2022	14	10
		165	06 Mar 2022 to 16 June 2022	14	10
6	Foundry & Pattern Making	162	25 July 2021 to 28 Oct 2021	14	5
		163	14 Nov 2021 to 17 Feb 2022	14	5
		165	06 Mar 2022 to 16 June 2022	14	5

2.2 Long Term Technical Training Program (Customized)

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

2.3 Mid Term Technical Training Program (Customized)

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

2.4 Short Term Technical Training Program (Regular)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats
	Programmable Logic Controller (PLC)	58	01 Aug 2021 to 12 Aug 2021	70	20
		59	24 OCT 2021 to 04 Nov 2021		
		60	09 Jan 2022 to 20 Jan 2022		
		61	10 Apr 2022 to 21Apr 2022		

2.5 Mid Term Technical Training Program (Customized)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats
	Boiler Operation & Maintenance	36	11July 2021 to 15 July 2021	35	20
		37	05 Sept 2021 to 09 Sept 2021		
		38	07 Nov 2021 to 11 Nov 2021		
		39	26 Dec 2021 to 30 Dec 2021		
		40	13 Feb 2022 to 17 Feb 2022		
		41	03 Apr 2022 to 07 Apr 2022		

2.6 Industrial Attachment Technical Training Program (As per stackeholders desire)

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

3.1 Machine Shop

Name of the Course	:	Machine Shop
Duration	:	14-week
Date	:	25 July 2021 to 28 Oct 2021, 14 Nov 2021 to 17 Feb 2022 & 06 Mar 2022 to 16 June 2022 for course no 163, 164, 165 respectively.
Nomination deadline	:	19 July 2021, 09 Nov. 2021, 27 Feb. 2022 for course no 163, 164 & 165 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 trapeziod 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 Rearming 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 practicing; ● Make Capable of measuring using different measuring instrument ● Awarenss 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-week
Date	:	25 July 2021 to 28 Oct 2021, 14 Nov 2021 to 17 Feb 2022, 06 Mar 2022 to 16 June 2022 for course no 163, 164, 165 respectively.
Nomination deadline	:	19 July 2021, 09 Nov. 2021, 27 Feb. 2022 for course no 163, 164 & 165 respectively.
Number of Seats	:	25
Course fee	:	8,000/-
Target Group	:	Candidate having SSC or equivalent certificate along with technical experience, Merchant Navy Cadets, Defense civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
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-week
Date	:	25 July 2021 to 28 Oct 2021, 14 Nov 2021 to 17 Feb 2022, 06 Mar 2022 to 16 June 2022 for course no 163, 164, 165 respectively.
Nomination deadline	:	19 July 2021, 09 Nov. 2021, 27 Feb. 2022 for course no 163, 164 & 165 respectively.
Number of Seats Course fee	: :	25 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; ● Introducting different welding Parameter ● Skill development in arc welding technique and gas welding technique; ● Detecing welding defects and trouble shooting ● Designing and making welding jigs fixtures; ● Learning welding symbols; ● Make capable of inspection and testing of wel joints; ● Safety awareness.
Course Contents	:	● Welding Theory on Arc Welding ● Heat Treatment ● Gas Welding/Cutting ● Safety & Mainteance ● 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	:	Auto-electricity
Duration	:	14-week
Date	:	25 July 2021 to 28 Oct 2021, 14 Nov 2021 to 17 Feb 2022, 06 Mar 2022 to 16 June 2022 for course no 163, 164, 165 respectively.
Nomination deadline	:	19 July 2021, 09 Nov. 2021, 27 Feb. 2022 for course no 163, 164 & 165 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 civilian staff (army, air force and navy), TTC/VTI certificate holders, Diploma in Engineering.
Course Objects	:	● To introduc 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; ● Reparing and maintenace of suspension and break system; ● Selecting appropriate blue oil, fuel & tyres for different types vehicles.
Course Contents	:	● Basic Engine ● Fundamental-Electricil 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-week
Date	:	25 July 2021 to 28 Oct 2021, 14 Nov 2021 to 17 Feb 2022, 06 Mar 2022 to 16 June 2022 for course no. 163, 164, 165 respectively.
Nomination deadline	:	19 July 2021, 09 Nov. 2021, 27 Feb. 2022 for course no. 163, 164 & 165 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	:	● Inroduction to different machine tools such as lathe machine, milling machine, grinding machine, boring machine, planer machine, drill machine, hydralic 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; ● Awaraness of safety and maintenance.
Course Contents	:	● Machine Elements ● Mechanical Component and Driving System ● General Maintenace ● Technical Drawing Reading ● Hand tools/Measuring Tools ● Safety & Maintenace.
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 Practic
Duration	:	14-week
Date	:	25 July 2021 to 28 Oct 2021, 14 Nov 2021 to 17 Feb 2022, 06 Mar 2022 to 16 June 2022 for course no 163, 164, 165 respectively.
Nomination deadline	:	19 July 2021, 09 Nov. 2021, 27 Feb. 2022 for course no 163, 164 & 165 respectively.
Number of Seats	:	5
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	:	● 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 mould and core making, ● Making mould/core, pasting, metal melting, fettiling etc; ● Identifying the different metals and alloys; ● Melting different metals, handling the liquid metal and puring the liquid metal into the mold cavity; ● Taking different measurement using different mesuring instruments; ● Introducing the heat treatment processes.
Course Contents	:	● Pattern Making ● Casting processes ● Sand mould Preparation & Practices. ● Different types of furnace ● Melting Processes ● Alloying of Metals ● Safety & Mainteance ● 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. LONG TERM TECHNICAL TRAINING PROGRAM , (CUSTOMIZED) BITAC, DHAKA.

4.1 Mechanical Drafting

Name of the Course	:	Mechanical Drafting
Duration	:	12-week (360 Hours)
Date	:	As per discussion
Nomination deadline	:	As per Demand.
Number of Seats	:	10
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	:	● Introduction to and important of engineering drawing; drafting instrument and their uses; ● Dimension-outside; inside, radius, angle, taper tolerance; ● Practicing different types of conventional drawing; ● Practicing geometric drawing-straight line, angle, square, polygon, circle, parabola, ellipse; ● Practicing part/detail drawing, collective drawing, assemble drawing. ● Practicing projection drawing, orthographic projection (1st & 3rd angle projection), isometric projection and oblique projection. Detail parts drawing assemble drawing with symbols surface finish and tolerances.
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.

4.2 Heat Tratment

Name of the Course	:	Heat Tratment [Customized]
Duration	:	12-week (360 Hours)
Date	:	As per discussion
Nomination deadline	:	As per Demand.
Number of Seats	:	5
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 practicing on Annealing Normalizing, Hardening & Tempering. ● Inroduction 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; ● Practicing hardness measurement; ● Preparing carburizing compound; ● Demonstration on packaging of job into carburizing compund. ● Awaraness 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 ● Oral test ● Overall performance.

4.3 Refrigeration & Air Conditioning

Name of the Course	:	Refrigeration & Air Conditioning
Duration	:	12-week (360 Hours)
Date	:	As per discussion.
Nomination deadline	:	. As per Demand.
Number of Seats	:	20
Course fee	:	5,000/-
Target Group	:	Candidates having passed at least class eight.
Course Objects	:	● To make capable of repairing of domestic and industrial Air Conditioning system; ● To make control circuit and detecting faults and its maintenance;
Course Contents	:	● Fundamental of Refrigeration and air Conditioning ● Control System ● Brazing and soldering ● Troubleshooting ● Operation And Maintenance ● Assembly And Dismantling of Components
Training Methodology	:	● Class-room lecture ● Group discussion ● Practical exercise ● Demonstration
Evaluation System	:	● Observation ● Question and answer ● Individual exercise ● Oral test ● Overall performance.

4.4 Electroplating

Name of the Course	:	Electroplating .
Duration	:	12-week (360 Hours)
Date	:	. As per discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	5
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	:	● Inroduction to different types of surface preparation of metals and alloys; ● Acquainting with different types of electroplating tank; ● Identification of different types of lining materials; ● Demonstration and practicing on buffing & polishing; ● Demonstration & practicing on application of abrasive powder on grinding wheel. ● Demonstration & practicing on drying of electroplated job. ● Practicing hardness measurement; ● Demonstration & practicing on electrolytic deposition of copper, nickel, bright chromium, hard chromium, zinc and cadmium on mild steel, cast iron and stainless steel; ● Awaraness of safety.
Course Contents	:	● Fundamentals of Electroplating ● Process Control ● Safety & Maintenance ● Engineering materials ● Fundamental of 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.

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

5.1 CNC Lathe Operation & Practice

Name of the Course	:	CNC Lathe Operation & Practice
Duration	:	4-week (140 Hours)
Date	:	As per discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	4
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 (Fagor), ● 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.

5.2 CNC Milling Operation & Practice

Name of the Course	:	CNC Milling Operation & Practice
Duration	:	4-week (140 Hours)
Date	:	. As per discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	4
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 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.

5.3 CNC Machining Center Operation & Practice

Name of the Course	:	CNC Machining Center Operation & Practice
Duration	:	4-week (140 Hours)
Date	:	As per discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	4
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 milling and drilling oriented operations; ● Detail Lessons ranging from basic to advanced programming; techniques using ISO and a representative multiaxis 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.

5.4 Die Sink EDM & Wire Cut EDM Operation & Practice

Name of the Course	:	Die Sink EDM & Wire Cut EDM Operation & Practice
Duration	:	4-week (140 Hours)
Date	:	As per discussion.
Nomination deadline	:	As per Demand.
Number of Seats	:	4
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 & wirecut EDM machines, their components and control systems; ● Acquaintance with eletrode (Properties, materials and machining), dielectric fluids (Properties, function); ● Programming with ISO codes and a representive 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.

5.5 Plastic Technology

Name of the Course	:	Plastic Technology
Duration	:	4-week (140 Hours)
Date	:	As per discussion.
Nomination deadline	:	As per discussion.
Number of Seats	:	5
Course fee	:	4,000/-
Target Group	:	Entrepreneur, technical staff working in the Plastic processing industries, TTC/VTI & disabilities.
Course Objects	:	● To operate injection moulding machine, compression moulding machine, vacuum forming machine, extruder machine, blow moulding and ther plastic machinery; ● Usage and maintenance of plastic mould; ● 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 ● Qusetion and Answer ● Individual exercise ● Oral test ● Overall performance.

5.6 Auto CAD (2D & 3D)

Name of the Course	:	Auto CAD (2D & 3D)
Duration	:	6-week (210 Hours)
Date	:	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 practicing 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.

5.7 Solid work

Name of the Course	:	Solid work
Duration	:	6-week (210 Hours)
Date	:	. 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 practicing of working and assembly drawing; ● Introducing the importance of computer aided design (CAD); ● MLearn about innovation of desin and design modification. ● Know about the application of solid works drowing
Course Contents	:	● Mechanical Drafting ● Solid works-2D ● Solid works-3D ● Assembly drawing Special Fitxare drawing
Training Methodology	:	● Class-room lecture ● Group discussion ● Practical exercise ● Demonstration
Evaluation System	:	● Observation ● Question and answer ● Individual exercise ● Oral test ● Overall performance.

6. SHORT TERM TECHNICAL TRAINING PROGRAM, (REGULAR) BITAC, DHAKA .
Programmbale Logic Controller (PLC)

Name of the Course	:	Programmbale Logic Controller (PLC)
Duration	:	2 -week (70 Hours)
Date	:	01 Aug 2021 to 12 Aug 2021, 24Oct 2021 to 04 Nov 2021 09 Jan 2022 to 20 Jan 2022, 10 Apr 2022 to 21 Apr 2022. For course no 58, 59, 60 & 61 respectively.
Nomination deadline	:	29 July 2021, 21 Oct 2021, 06 Jan 2022, 07 Apr 2022 For Course No. 58, 59, 60 & 63 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 modyfy existing Realy 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.

7. SHORT TERM TECHNICAL TRAINING PROGRAM, (CUSTOMIZED) BITAC, DHAka.

Boiler Operation and Maintenance

Name of the Course	:	Boiler Operation and Maintenance
Duration	:	1-week (35 Hours)
Date	:	11 July to 15 July 2021, 05 Sept to 09 Sept 2021, 07 Nov to 11 Nov 2021,26 Dec to 30 Dec 2021, 13 Feb to 17 Feb 2022 & 03 Apr to 07 Apr 2022 for courese no:36, 37, 38 ,39,40 & 41 respectively
Nomination deadline	:	08 July 2021, 02 Sept 2021, 11 Nov 2021, 23 Dec 2022, 10 Feb 2022 & 31 Mar 2022 for course no. 36,37,38,39,40 & 41 respectively
Number of Seats	:	20
Course fee	:	3,500/-
Target Group	:	Enterpreneur, technical staffs working in the idustries like Sugar Mills, Textiles passed at least class eight.
Course Objects	:	● Skill development on Boiler; ● Hand on practice on maintenance of defferent circuits like fuel circuits, water circuit; ● 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 ● Group discussion ● Practical exercise ● Demonstration
Evaluation System	:	● Observation ● Question and answer ● Oral test ● Overall performance.

8. Skill for Employment Investment Program(SEIP), BITAC- Dhaka, Chattogrom, Khulna, Bogra and Chandpur.

8.1 Machine Shop Practice

Name of the Course	:	Machine Shop Practice
Duration	:	360 Hours
Batch no.		Tranche-2 (7th batch) Tranche-3(1st batch, 2nd batch and 3rd batch)
Number of Seats	:	30
Course Fee	:	**Free**
Target Group	:	8th Class pass
Course Objects	:	● To perform Computations Using Basic Mathematical Concepts ● To apply Occupational Health and Safety (OHS) Practices in the Workplace ● To communicate in English in the Workplace ● To operate in a Self-Directed Team ● To interpret Technical Drawings and Plans ● To work with Mechanical Hand and Power Tools ● To carry Out Precision Checks and Measurements ● To apply Quality System and procedures ● Carryout 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 apply Occupational Health & Safety(OHS) Practices in the Workplace ● To interpret Technical Drawing & Plans ● To work With Mechanical Hand & Power Tools ● Carry Out Precision Checks & Measurements ● To apply Quality System and Procedures
Training Methodology	:	● Class-room lecture ● Group discussion ● Practical exercise ● Demonstration
Evaluation System	:	● Observation ● Question and answer ● Oral test ● Overall performance.

8.2 Electrical Installation and Maintenance

Name of the Course	:	Electrical Installation and Maintenance
Duration	:	360 Hours
Batch No.	:	Tranche-2 (7th batch) Tranche-3(1st batch,2nd batch and 3rd batch)
Number of Seats	:	30
Course Fee	:	**Free**
Target Group	:	8th Class pass
Course Objects	:	• Use basic mathematical concepts • Carryout Workplace Interaction • To apply OSH Practices in the Workplace • Interpret Drawings And Specifications In Electrical Installation • Use Hand and Power Tools For Electrical Works • 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	:	• Use Basic Mathematical Concepts • 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. • Install Earthing and Atmospheric Lightning Protection System • To perform Conduit Wiring, Service Connection and Channel Wiring
Training Methodology	:	• Class-room lecture • Group discussion • Practical exercise • Demonstration
Evaluation System	:	• Observation • Question and answer • Oral test • Overall performance.

8.3 Welding

Name of the Course	:	Welding
Duration	:	360 Hours
Batch No.		Tranche-2 (7th batch) Tranche-3(1st batch,2nd batch and 3rd batch)
Number of Seats	:	30
Course Fee	:	**Free**
Target Group	:	8th Class pass
Course Objects	:	• To perform Computations Using Basic Mathematical Concepts • To apply OHS Practices in the Workplace • 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 communicate in English in the Workplace • To apply Occupational Health & Safety(OHS) Practices in the Workplace • Fundamental of Welding Metallurgy • To work With Mechanical Hand & Power Tools • To perform Computations using Basic Mathematical Concepts • Apply Quality System & Procedures • To interpret Technical Drawings & Manuals • Carry Out Precision Checks & Measurements • Gas welding, Gas cutting, Brazing and Soldering • Shielded Metal Arc Welding
Training Methodology	:	• Class-room lecture • Group discussion • Practical exercise • Demonstration
Evaluation System	:	• Observation • Question and answer • Oral test • Overall performance.

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

9.1 BITAC, Dhaka.

Sl. No.	Name of the Course	Time Schedule	No. of seats/ Trade/Batch	Course Fee
1	Machine Shop	From 18 May 2021 to 15 Aug 2021 for the 1st batch From 16 Aug 2021 to 13 Nov 2021 for the 2nd batch From 14 Nov 2022 to 11 Feb 2022 for the 3rd batch From 12 Feb 2022 to 12 May 2022 for the 4th batch From 13 May 2022 to 10 Aug 2022 for the 5th batch	30	Free
2	Electronics			
3	Electrical Maintenance			
4	Refrigeration & Air conditioning			
5	Auto CAD			
6	House Hold Appliance Maintenance			
7	Handicraft			
	Plastic Processing			
	Plastic Processing Customized			

9. 2 BITAC, Chattogram.

Sl. No.	Name of the Course	Time Schedule	No. of seats/ Trade/Batch	Course Fee
1	Welding (Arc & Gas)	From 18 May 2021 to 15 Aug 2021 for the 1st batch From 16 Aug 2021 to 13 Nov 2021 for the 2nd batch From 14 Nov 2022 to 11 Feb 2022 for the 3rd batch From 12 Feb 2022 to 12 May 2022 for the 4th batch From 13 May 2022 to 10 Aug 2022 for the 5th batch	30	Free
2	Refrigeration & Air conditioning			

9. 3 BITAC, Chanpur, Khulna and Bagra.

Sl. No.	Name of the Course	Time Schedule	No. of seats/ Trade/Batch	Course Fee
1	Welding (Arc & Gas)	From 18 May 2021 to 15 Aug 2021 for the 1st batch From 16 Aug 2021 to 13 Nov 2021 for the 2nd batch From 14 Nov 2022 to 11 Feb 2022 for the 3rd batch From 12 Feb 2022 to 12 May 2022 for the 4th batch From 13 May 2022 to 10 Aug 2022 for the 5th batch	30	Free
2	Electrical Maintenance			

10. Industrial Attachment Technical Training Program, BITAC- Dhaka. Chattogrom, Khulna, Bogra Chandpur and TTI, Dhaka.

Name of the Course	:	INDUSTRIAL ATTACHMENT TECHNICAL TRAINING PROGRAM
Duration	:	4/12 Week
Date	:	At any time of the year depending on the participating Institute
Nomination deadline	:	Depends on the participating Institute
Number of Seates	:	As per demand
Course fee	:	As per Govt. rule depending on the sending Institute
Target Group	:	All the public and private technical Universities, Polytechnic Institute, TTC etc.
Course Objects	:	● Introducing different conventional machine tools such as lathe, milling, grinding planer, boring, shaper, shearing, drilling, ball press, power press etc and CNC & Servo Control machine tools such as lathe, milling center, die sink EDM, & wire cut EDM. ● Comparing theoritical and practical operaton systems of different traditional and CNC machine tool to develop spare parts or products, ● Acquainting with different melting and heat treatment furnaces and their operation system and also different surface treatment including protective coating; ● To make adapted in real life situation ● Understanding estimation and controlling production system. ● Rendering practical know-how on plastic processing technology. ● Introducing 3D printing operation. ● Understanding Hydraulic System.
Course Contents	:	● Welding and Fabrication ● Conventional Machine Tool-lathe, milling grinder, planer, boring, shaper, shearing, drilling, ball press and power press machine etc. ● CNC Machine Tool-lathe, milling machining center & wire cut EDM. ● Special Machine Tool-Copy milling, pantograph milling, profile grinder, jig Boring & jig Grinding, servo control die sink EDM ● Tool and Cutter Grinding, ● Light Forging, ● Heat-Treatment ● Electroplating, ● Patten, ● Foundry ● Plastic Possessing machinery
Training Methodolog	:	● Group discussion ● Practical exercise ● Case study.
Evaluation System	:	● Group exercise ● Individual exercise ● Discussion ● Oral test ● Overall performance.

11. BITAC, Chattogram

11.1 Long Term Technical Training Program (Ragular)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Weeks	No. of seats	Course Fee
1	Machine Shop	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	10	5,000/=
2	Electrical Maintenance	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	20	8,000/=
3	Welding	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	20	7,500/=
4	Machine Maintenance	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	6	5000/=

11.2 Long Term Technical Training Program (Customized)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats	Course Fee
	Refrigeration & Air Conditioning	As per Demend	As per Discussion	360	10	5,000/=

11.3 Mid Term Technical Training Program (Customized)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats	Course Fee
1	Auto CAD (2D & 3D)	As per Demend	As per Discussion	210	6	5,000/=
	Solid work				6	7,500/=

11.4 Short Term Technical Training Program (Customized)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Hours	No. of seats	Course Fee
1	Programmbale Logic Controller (PLC)	As per Demend	As per Discussion	70	10	7,500/=

12. BITAC, Chandpur, Khulna, Bogra.

Long Term Technical Training Program (Regular)

Sl. No.	Name of the Course	Course No.	Duration	Practicing Weeks	No. of seats	Course Fee
1	Machine Shop	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	10	5,000/=
2	Electrical Maintenance	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	20	8,000/=
3	Welding	163 164 165	25 July 2021 to 28 Oct 2021, 14 Nov. 2021 to 17 Feb. 2022, 06 Mar. 2022 to 16 June 2022 for course No. 163, 164 & 165 respectively.	14	20	7,500/=

13. Tool & Technology Institute (TTI), BITAC, DHAKA - 1208

Training Program:

Sl. No.	Name of the Course	Field	Duration	No. of Course/ year	Desire on / Course	Qualification	Time Schedule.	Total no.
1.	Master Trainer Training (MTT)	CAD CAM (MTTC)	36	1	10	B.Sc. Engg	01 July to to 30 March	20
		Mechatronics (MTTM)	36	1	05			
		Hydraulics (MTTH)	36	1	05			
2.	Employment Training (ET)	CNC Lathe (ETCL)	12	3	15	Diploma Engg	01 July to 30 Sep 01 Nov to 30 January 01 March to 30 May	150
		CNC Milling (ETCM)	12	3	15			
		Mechatronics (ETM)	12	3	10	Diploma Engg		
		Hydraulics (ETH)	12	3	10			
3.	Apprentice Program (AT)	CAD CAM - ATC,ATM,ATH	24	2	10	Diploma	01 July to 30 Dec 01 Jan to 30 June	20
					05			
					05			
4.	Engineering Foundation Training (EFT)	ME, EEE and Equivalent	8	1	10	B.Sc. Engg	01 Feb to 30 March	10
5.	Customize Training (CT)	ME, EEE and Equivalent	-	1	10	B.Sc. Engg, Diploma, Science background	01 October to 30 October	10
6.	Short Course (SC)	Heat Treatment, 3D Printing, CMM, CAD CAM, Mechatronics, Hydraulics	1	1	25	B.Sc. Engg, Diploma, Science background	01 Feb to 07 Feb	25
7.	Industrial Training	ME, EEE and Equivalent	3	1	3	B.Sc. Engg Student	As per Requirement	3
8.	Project & Thesis	Final year student	24	1	2	B.Sc. Engg Student	As per Requirement	2
A.	Total							240
1.	Workshop/ Seminar /conference/ Symposium			6	40	.B.Sc. Engg, Diploma, Science background	Every 2 Month Interval	240
2.	New Entrepreneur Competition		12	1	50	.B.Sc. Engg, Diploma, Science background	01 Jan to 30 June	50
B.	Total							290
A+B.	Grand Total							530