

Short Term Courses

COURSES FOR DIPLOMA/DEGREE IN MECHANICAL ENGG. OR EQUIVALENT

COURSE NAME	DURATION	COURSE FEE
Auto CAD (Mechanical)	1 Month	₹7,000/-
CATIA	1 Month	₹8,000/-
Creo	1 Month	₹8,000/-
UNIGRAPHICS	1 Month	₹8,000/-
SOLIDWORKS	1 Month	₹8,000/-
MASTER CAM	1 Month	₹8,000/-
CNC Milling & Turning	1 Month	₹8,000/-
ANSYS	2 Weeks	₹8,000/-
3D Printing & Additive Manufacturing	2 Weeks	₹8,000/-

COURSES FOR DIPLOMA/DEGREE IN ELECTRICAL/ ELECTRONICS ENGG. OR EQUIVALENT

COURSE NAME	DURATION	COURSE FEE
PLC	1 Month	₹8,000/-
VLSI	1 Month	₹8,000/-
SCADA	1 Month	₹8,000/-
Advanced Embedded System	1 Month	₹8,000/-
ROBOTICS	1 Month	₹8,000/-
Lab View	1 Month	₹8,000/-
E.CAD	1 Month	₹7,000/-

COURSES FOR DIPLOMA/DEGREE IN CIVIL ENGG.

COURSE NAME	DURATION	COURSE FEE
Auto CAD (Civil)	1 Month	₹7,000/-
STAAD PRO	1 Month	₹8,000/-
3Ds Max	1 Month	₹8,000/-
REVIT	1 Month	₹8,000/-

COURSES FOR ANY GRADUATE

COURSE NAME	DURATION	COURSE FEE
MAT LAB	2 Weeks	₹8,000/-
Hardware Networking	1 Month	₹5,500/-
.NET	1 Month	₹5,500/-
Core JAVA	1 Month	₹5,500/-
Advanced JAVA	1 Month	₹5,500/-
C	1 Month	₹3,500/-
C++	1 Month	₹3,500/-
Entrepreneurship Skill Development Program	2 Weeks	₹2,500/-
Internet of Things	2 Weeks	₹8,000/-

ALL THE ABOVE SHORT TERM COURSE START ON 1ST WORKING DAY OF EVERY MONTH

POST DIPLOMA IN MECHATRONICS (PDIM)



MSME TOOL ROOM, BHUBANESWAR

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**CENTRAL TOOL ROOM & TRAINING CENTRE
Bhubaneswar, Odisha**

NSQF Complied Long Term Courses

COURSE NAME		DURATION	COURSE FEE
COURSES FOR 10TH PASS OUT			
Diploma in Tool & Die Making	DTDM	4 Year	₹19,000/- (per Semester)
Diploma in Mechantronics	DIM	3 Year	₹19,000/- (per Semester)
ITI Machinist	ITIM	2 Year	₹28,000/- (per Year)
ITI Fitter	ITIF	2 Year	₹28,000/- (per Year)
ITI Electrician	ITIE	2 Year	₹28,000/- (per Year)
Condensed Course in Tool & Die Making	CTDM	1 Year	₹66,000/-
Certificate Course in CNC Turning & Milling	CCTM	1 Year	₹32,000/-
COURSES FOR UNDER MATRIC			
Certificate Course in Machine Operation	CCMO	1 Year	₹18,000/-
COURSES FOR ITI STUDENTS			
Certificate Course in Advance Machining	CCAM	1 Year	₹32,000/-
Advance Certificate Course in Machine Maintenance	ACCMM	1 Year	₹32,000/-
Advance Certificate Course in CNC Machining	ACCCM	1 Year	₹34,000/-
Advance Certificate Course in Welding Technology	ACCWT	1 Year	₹50,000/-
Certificate Course in Machining	CCM	6 Months	₹22,000/-
Certificate Course in Fitting & Rigging	CCFR	6 Months	₹32,000/-
Suryamitra	-----	1.5 Months	₹10,000/-
COURSES FOR DIPLOMA IN MECHANICAL ENGG. OR EQUIVALENT			
Post Diploma in Tool & Die Manufacturing	PDTDM	1 Year	₹54,000/-
Post Diploma in CAD/CAM	PDCC	1 Year	₹54,000/-
Advance Diploma in CNC Programming Techniques & Practice	ADCNC	6 Months	₹34,000/-
COURSES FOR DEGREE IN MECHANICAL ENGG. OR EQUIVALENT			
Post Graduate Diploma in Tool Design & CAD/ CAM	PGTD	1 Year	₹60,000/-
Post Graduate in Aerospace Manufacturing	PGAM	1 Year	₹60,000/-
Master Certificate course in CAD / CAM	MCC	6 Months	₹36,000/-
COURSES FOR DIPLOMA IN ELECTRICAL/ELECTRONICS ENGG. OR EQUIVALENT			
Advanced Diploma in Machine Maintenance & Automation	ADMMA	6 Months	₹34,000/-
Advanced Embedded Technology	AET	6 Months	₹34,000/-
Certificate Course in Electrical Equipment Repair & Maintenance	CCERM	6 Months	₹34,000/-
Post Diploma in Industrial Automation & Robotics	PDIAR	1 Year	₹60,000/-
COURSES FOR DEGREE IN ELECTRICAL/ELECTRONICS ENGG. OR EQUIVALENT			
Master Certificate Course in Automation & Process Control	MCCAPC	6 Months	₹36,000/-
COURSES FOR DIPLOMA IN MECHANICAL/ ELECTRICAL/ELECTRONICS ENGG. OR EQUIVALENT			
Post Diploma In Mechatronics	PDIM	1 Year	₹54,000/-
COURSES FOR DIPLOMA/DEGREE IN CIVIL ENGG.			
Post Diploma in Structural Design & Analysis	PDSDA	1 Year	₹54,000/-
Advance Diploma in Structural Design & Analysis	ADSDA	6 Months	₹34,000/-
COURSES FOR ANY GRADUATE			
Advance Certificate Course in Inspection & Quality Control	ACCIQ	6 Months	₹22,000/-
Advance Diploma in Computer Hardware & Networking Management	ADCHNM	6 Months	₹34,000/-
Advanced Certificate Course in Software Application	ACCSA	6 Months	₹22,000/-

POST DIPLOMA IN MECHATRONICS (PDIM)

Introduction to CTTC:

MSME Tool Room Bhubaneswar (Central tool Room & Training Centre) established in the year 1991, Today stands as the premier Tool Room & Training Centre in India. Under the Technical Co-operative programme between Government of India and Govt. of Denmark the Centre was established as a Govt. of India Society. The management of affairs of the Centre rests with the Governing Council constituted by Govt. of India. Additional Secretary & Development Commissioner (MSME), Govt. of India, is the President of the Society & Chairman of the Governing Council.

MSME Tool Room –Bhubaneswar is on the way of achieving its set goal with its extension Centre at Rayagada and Kalinga nagar, Odisha. It believes its bench marking its standards not only against the tool room and training centers in India and the world. The zeal and experience and commitment of employees has been pushing the Centre to achieve the greater height of quality industry oriented training programs for different levels and different discipline students and production of highly precision components for tool and die making, automobile and aerospace components.

Objectives of this course

Upon completion of this course, Participants will be able to:

- Upgrade the professional skills in the area of Mechatronics.
- To have the employment.
- To become an Entrepreneur

Who can avail this opportunity:

Degree in Electrical/ Instrumentation/Electronics or Equivalent Engineering pass The company sponsored candidates will be preferred. Unemployed /fresh diploma holders and those final year students awaiting result can be apply.

NSQF Qualification: Level – 6

Duration: 1 year (1560 Hours)

Occupation of Qualification: Mechatronics Supervisor, System Programmer, Maintenance Supervisor

Progression of Occupation from Qualification: As the Qualification is carrier oriented the qualifying trainee will be

1. Absorbed by the industry as a Mechatronics Supervisor or Maintenance Supervisor. After completion of 3 years he will be working as a Mechatronics Engineer. After 5 years he will work as a Senior Engineer.
2. To start his own enterprise

Fee:

₹ 54,000/-per participant to be paid in the following instalments.

At the time of registration - ₹ 1,000/-

First Instalment	-	₹ 13,000/- (At the time of admission)
Second Instalment	-	₹ 13,000/- (After completion of two month)
Third Instalment	-	₹ 13,000/- (After completion of six month)
Fourth Instalment	-	₹ 14,000/- (After completion of nine month)
NSQF Examination Fee	-	₹ 800/- (At the time of admission)

22.5%seats are reserved for SC/ST candidates for whom no course fee will be charged subject to production of two photocopies of caste certificate dully attested by Greeted Officer. However, all other fees/deposits is to be paid in case of admission. Caste Certificate in Original from competent authority is to be produced for verification at the time of admission which may be revived from the issuing authority.

COURSE CONTENT :

Sl. No.	Title and identification code of component.	Estimated size
1	To have broad knowledge of Automation Techniques, Mechatronics systems, Drives, Sensors, hydraulics & Pneumatics.	1560 Hrs.
2	To apply Mechatronics principles for solutions to the specific problems.	
3	To use software for generating solutions in PLC, hydraulics & pneumatics.	
4	To work as individual & member of inter discipline team in the management supervision.	
5	To communicate effectively.	
6	To use mathematical skills for solving specific problems.	
7	To work on project & have good data collecting, organizing ability.	
8	To have business ethics & values.	
9	To observe & follow safety	
10	Develop entrepreneurship skills	

ELIGIBILITY TO APPEAR IN THE EXAM:

Minimum 80% attendance is compulsory for the students to appear for the assessments.

PASSING MARKS:

Pass criteria for the qualification is that every student must score a minimum of 50 % both in Theory and Practical.

DETAILED COURSE CONTENT FOR 1 YEAR :

Course Name	Contents (chapters/topics)
Mechatronics Fundamentals	Introduction to mechatronics, measurement systems and control systems, Basic and digital electronics, Signal conditioning & data, acquisition, System models and controllers, Mechatronic systems.
Sensors & Actuators	Science of measurement, Mechanical measurements, Electrical measurements, Smart sensors, Actuators.
Programmable Logic Control	Introduction, Details of electrical hardware control, (manual control), Relay hardware logic control, Programming, Practices with software.
Hydraulics & Pneumatics	Introduction to hydraulics & pneumatics, Control elements, Hydraulics & pneumatics basic circuits, Advanced controls & circuits Safety, troubleshooting & remedies.
Engineering Metrology & Quality Control	Principles of measurement & tolerances, Inspection techniques, Screw thread measurement & gear technology, Quality.
Computer Aided Design	Introduction Of AutoCAD, Basics of AutoCAD, Introduction Of E-CAD, Basics of E-CAD.
Electrical Drives Control	Introduction, Study of motors, Electrical drives, Ac drives control, Types of operation.
Entrepreneurship	Entrepreneurship and the entrepreneurial process, Entrepreneurship framework and the entrepreneurial personality, Start-up factors, organizational planning and women, Entrepreneurship, Organizational structure and forms of ownership, Stages of growth and strategic management process, Intellectual property concept and innovation.
Microprocessors & Applications	Microprocessor, Architecture 8085 Microprocessor, Instruction set, Addressing, Mode and, Timing diagram, Design using peripheral devices, Microprocessor applications.
Mechatronics Lab	Distribution process, Testing process, Handling process, Storing process, Sorting process.
Supervisory Control And Data Acquisition	Introduction, role of SCADA in industrial automation, Communication of SCADA with PLC, creating, process screens, Creating data base of tags, Application of lad program on SCADA projects, Creating a process control window

How to apply:

Application form attached with the broacher be filled up & mailed to Sr. Manager (Training) along with a D/D of ₹1000.00 on or before. In the event of selection this money will be adjusted in the course fee otherwise refund will be given on or before one week of course starts. Admission notification will be issued immediately after the last date of receipt of application and selected candidates will be required to pay fees within 15 days on or before and report for training from _____.

Hostel Accommodation:

Dormitory accommodations can be arranged in the CTTC guest house which can be booked on advanced request. The accommodation charges will be ₹1200.00 per month per bed.

Uniform:

The candidates will have to get uniforms, dress stitched at their own cost as per the colour & design specified by the center.

Certification:

After successful completion of training main certificate with grade, mark sheet & project certificate will be issued separately to the trainees.

Placement Help:

CTTC placement cell will make efforts to contact & invite companies to conduct campus interviews; however, no guarantee can be given for placement/employment. Interested trainees can be registered by paying ₹3,000/- each towards placement registration at start of the programme and in case of trainee is not successful from getting placement he/she may be refunded ₹2,000/-.

GENERAL RULES & REGULATIONS FOR TRAINEES:

- CTTC reserves the right to reject any application without assigning any reason. Incomplete
- CTTC reserves the right to reject any application without assigning any reason. Incomplete applications are liable to be rejected.
- Registration Fee is Non Refundable, in case any candidate cancels his admission for any reason.
- Course Fee once paid will not be refunded & Registration/ Course Fee is not transferrable.
- Insurance & other charges as specified for the course to be paid but the trainee in addition to the course fee as applicable.
- All the trainee will be ensure discipline within the campus.
- Trainee shall be required to wear uniform & shoes as prescribed by the institute and possess I-Card compulsory during training.
- Mobile Phones, Pen Drives, CD any other related items are not permitted inside CTTC premises.
- Regular attendance will have to be maintained by the trainee as per course schedule & 80% attendance is compulsory in all subjects individually.

- Trainees will abide by the examination rules and regulations displayed on Notice Board of CTTC and as amended.
- Leave without information/ permission will not be entertained.
- Trainees going on leave or home during vacation should inform course coordinator compulsorily.
- No trainee shall be organize/ conduct any meeting within the campus.
- The Machines/ Equipment/ Furniture must be handled carefully. No act of damage to CTTC property shall be carried out by the trainee, any loss or damage to property, including water & electricity usage.
- Smoking & chewing tobacco, possessing or drinking alcoholic beverages in any form is strictly prohibited within CTTC premises.
- Ragging is strictly prohibited in the premises.
- Writing any Comment/ Remarks/ Name on doors, walls, toilet, and notice board is strictly prohibited.
- Violation of above & any other Rules, Regulations, Disciplines and Conduct are liable for disciplinary action.