General Manager's Message .................................................. 01
The Institute ................................................................. 02
Vision ................................................................. 03
Values, Aims & Objectives ................................................ 04
Infrastructure .......................................................... 05
Training Programmes .................................................... 07
Manufacturing Activities ............................................... 26
Alumni ................................................................. 27
Student Activities ..................................................... 28
Placement Process and Policies ....................................... 28
Why to recruit from CTTC-Bhubaneswar ....................... 31
Few of our valued Recruiters ....................................... 32
Bhubaneswar – The Temple City .................................... 33
Location Map .......................................................... 33
Greetings from CTTC-Bhubaneswar.....

CTTC (Central Tool Room & Training Centre, Bhubaneswar) has always been the pacesetter among all the MSME Tool Rooms under the Ministry of MSME, Govt. of India. Updated Knowledge and skill are the mainstay amongst the best organizations of today. Keeping this in mind, we at CTTC-Bhubaneswar have designed various programmes that equip the students to face the industry challenges. Over and above a rigorous practical training, we place a great emphasis on all-round development of our students. These talented young professionals have not only proved themselves as valuable assets to their organizations as "CTTC Brand", but also brought laurels to themselves and the institute. The alumni of this Institute occupy key positions in Tool & Die Making, Manufacturing, Designing, Automation, PLC Departments of many industries in India and abroad.

The well-equipped campus provides an excellent environment for technical learning. We at CTTC strive hard to equip our budding technocrats with the required talents, right attitude and mental fortitude to face the challenges of the Indian and Global corporate world.

Since the inception of this great institution, CTTC-Bhubaneswar has the vision to provide quality technical education and to fulfill the mission to develop human potential to its greatest degree.

Looking forward a very long term association, I heartily welcome the esteemed recruiters to visit our campus and test the young talents passing out from this institution.

SIBASISH MAITY
General Manager
The Institute

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-operation 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 (border of Andhra Pradesh), Odisha. It believes in benchmarking its standards not only against the Tool Rooms & Training Centres in India and the world. The zeal for excellence and commitment of the employees has been pushing the centre to even greater heights of quality industry-oriented training programmes and production of highly precision components.

Multi-fold enhancement of Skill Development activities through upgradation of infrastructure facilities, setting up of extension and franchisee centres for outreach programmes.

Fostering growth of MSMEs by providing Techno-Managerial support services in Engineering and allied fields through Lean Manufacturing, Design clinics, Incubators, ICT-tools etc.

To become internationally acclaimed Centre of excellence in the area of core competencies providing solutions in product design & development, manufacturing, skill development and project consultancy.

Developing competitive edge through adoption of best manufacturing practices such as virtual manufacturing, direct digital manufacturing etc.

Adopt e-teaching practices including latest web-based technologies for outreach skill development activities.

Establish brand image of MSME-Institutions for skill certification.

Develop value-added finishing courses. Also make twinning arrangements with reputed institutes and organizations both national/international for such courses.

Focus on guiding trainees; especially from socially disadvantaged sections of the society for improving employment potential including self-employment.

Organizational restructuring including continuous HR practices to meet new challenges.

Total self-sufficiency with sustained growth.
Our Values

- **Integrity and Honesty:** CTTC-Bhubaneswar believes in being truthful to self and others in all its activities.
- **Respect for individuals:** CTTC-Bhubaneswar believes that each individual is unique and capable of contributing to the institutional growth.
- **Transparency:** CTTC-Bhubaneswar believes in sharing of relevant information to encourage all its stakeholders for their participation and empowerment.
- **Commitment:** CTTC-Bhubaneswar family members take pride in identifying themselves with the centre and its activities.
- **Quality:** CTTC-Bhubaneswar believes in meeting the standards required to make its products unique and attractive.
- **Passion for Performance:** CTTC-Bhubaneswar family believes in exploring new avenues to achieve goals beyond expectation.
- **Social and Ethical Sensitivity:** CTTC-Bhubaneswar believes in serving the Society.

Aims & Objectives

- **To develop production facilities** of moulds, jigs, fixtures, gauges & other sophisticated tools preferable for Micro, Small & Medium Enterprises.
- **To train manpower** in the fields of Tool & Die Making, CAD/CAM, Tool/Product Designing, CNC Programming & Practices, Machine Maintenance, PLC, VLSI, Industrial Automation and other allied engineering trades both for the freshers & for personnel already engaged in the field.
- **To provide common facilities** in precision machining & heat treatment.
- **To provide consultancy facilities** primarily for Micro, Small & Medium Enterprises in the field of tool engineering, quality improvement and productivity.
Infrastructure

- Sprawling area: 13 acres
- Training Centre with more than 20 CNC Machines
- More than 1700 Computers loaded with latest CAD/CAM softwares viz. AutoCAD, Pro-E, CATIA, UG, ANSYS, Solidworks, FEA, Mastercam, Hypermesh etc.
- FESTO Hydraulic and Pneumatic kits
- Siemens PLC systems
- VLSI & Embedded Systems
- CISCO Certified Network Associates
- Modern Tool Room with latest machines & equipments
- Separate Inspection Department with latest measuring instruments and CMM
- Full-fledged Library with Study Centre
- Video Conference facility
- Vacuum Heat Treatment Plant
- 10000 Class Clean Room

Machineries & Equipments

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the machines &amp; equipments</th>
<th>Make</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CNC Lathe</td>
<td>Mazak, Schaublin, ACE Designer</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>CNC Turn Mill Centre</td>
<td>DMG</td>
<td>01</td>
</tr>
<tr>
<td>3</td>
<td>Centre Lathe</td>
<td>Schaublin</td>
<td>01</td>
</tr>
<tr>
<td>4</td>
<td>Lathe (Conventional)</td>
<td>HMT, Schaublin, Kirloskar, Vikram, Jyoti, Gedee &amp; Padmini</td>
<td>38</td>
</tr>
<tr>
<td>5</td>
<td>CNC Milling</td>
<td>MIKRON, BFW, ACE Designer, Bridgeport</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>Milling (Conventional)</td>
<td>Pedersen &amp; HMT</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>Pentograph Milling Machine</td>
<td>Tool craft</td>
<td>01</td>
</tr>
<tr>
<td>8</td>
<td>CNC Jig Grinder</td>
<td>Moore</td>
<td>01</td>
</tr>
<tr>
<td>9</td>
<td>Surface Grinder</td>
<td>Jakobsen &amp; Bhurjee</td>
<td>21</td>
</tr>
<tr>
<td>10</td>
<td>Cylindrical Grinder</td>
<td>Studer &amp; HMT</td>
<td>05</td>
</tr>
<tr>
<td>No.</td>
<td>Equipment</td>
<td>Manufacturer</td>
<td>Quantity</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------</td>
<td>----------------</td>
<td>----------</td>
</tr>
<tr>
<td>11</td>
<td>Tool &amp; Cutter Grinder</td>
<td>Pedersen</td>
<td>07</td>
</tr>
<tr>
<td>12</td>
<td>Single Lip Cutter Grinder</td>
<td>KEF</td>
<td>02</td>
</tr>
<tr>
<td>13</td>
<td>Pedestral Grinder</td>
<td></td>
<td>04</td>
</tr>
<tr>
<td>14</td>
<td>Lapwet Grinding Machine</td>
<td>HMT</td>
<td>01</td>
</tr>
<tr>
<td>15</td>
<td>Tool Grinder</td>
<td>Junger</td>
<td>01</td>
</tr>
<tr>
<td>16</td>
<td>CNC Wire EDM</td>
<td>AGIE &amp; Electronica</td>
<td>04</td>
</tr>
<tr>
<td>17</td>
<td>CNC Die Sinking (EDM)</td>
<td>AGIE &amp; Electra</td>
<td>04</td>
</tr>
<tr>
<td>18</td>
<td>Pedestral Drilling Machine</td>
<td>EFCO</td>
<td>04</td>
</tr>
<tr>
<td>19</td>
<td>Bench Drilling Machine</td>
<td>EFCO</td>
<td>04</td>
</tr>
<tr>
<td>20</td>
<td>Radial Drilling Machine</td>
<td>HMT</td>
<td>02</td>
</tr>
<tr>
<td>21</td>
<td>Injection Moulding</td>
<td>L&amp;T</td>
<td>01</td>
</tr>
<tr>
<td>22</td>
<td>Hydraulic Power Press</td>
<td>BSV &amp; Soundergard</td>
<td>03</td>
</tr>
<tr>
<td>23</td>
<td>Hand Press Machine</td>
<td>DALIP</td>
<td>02</td>
</tr>
<tr>
<td>24</td>
<td>Power Press</td>
<td>AMTEEP &amp; Hydraulic</td>
<td>02</td>
</tr>
<tr>
<td>25</td>
<td>Filing Machine</td>
<td>SENAZ</td>
<td>01</td>
</tr>
<tr>
<td>26</td>
<td>Shaper</td>
<td>MMM Loyal</td>
<td>01</td>
</tr>
<tr>
<td>27</td>
<td>Power Hacksaw</td>
<td>Chudasma</td>
<td>04</td>
</tr>
<tr>
<td>28</td>
<td>Supercut (Band saw)</td>
<td>J.S. Machine Tools</td>
<td>01</td>
</tr>
<tr>
<td>29</td>
<td>Bench Vice</td>
<td>APEX</td>
<td>01</td>
</tr>
<tr>
<td>30</td>
<td>Vacuum Heat Treatment</td>
<td>ALD</td>
<td>02</td>
</tr>
<tr>
<td>31</td>
<td>CNC 3D CMM</td>
<td>Seiss, Accurate &amp; LK</td>
<td>03</td>
</tr>
<tr>
<td>32</td>
<td>CAD/CAM Equipments</td>
<td>COMPAQ, HCL etc.</td>
<td>1700</td>
</tr>
<tr>
<td>33</td>
<td>MIG/MAG Welding M/c</td>
<td>ESAB</td>
<td>01</td>
</tr>
<tr>
<td>34</td>
<td>TIG Welding M/c</td>
<td>ESAB</td>
<td>01</td>
</tr>
<tr>
<td>35</td>
<td>PUG Cutting M/c</td>
<td>ESAB</td>
<td>01</td>
</tr>
<tr>
<td>36</td>
<td>OxyAcetiline M/c</td>
<td>ESAB</td>
<td>01</td>
</tr>
<tr>
<td>37</td>
<td>Microcontroller Trainer Kit</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>38</td>
<td>VLSI Trainer Kit</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>39</td>
<td>Hydraulic Trainer Kit</td>
<td></td>
<td>01</td>
</tr>
<tr>
<td>40</td>
<td>S7-200, 300 &amp; 400</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>41</td>
<td>PLC</td>
<td>Allen Bradley</td>
<td>10</td>
</tr>
<tr>
<td>42</td>
<td>Vector Control Drive</td>
<td></td>
<td>01</td>
</tr>
<tr>
<td>43</td>
<td>PCB Manufacturing Equipment</td>
<td></td>
<td>1 set</td>
</tr>
</tbody>
</table>
1. Post Graduation in Tool Engineering

Duration: 1 year (2 Semesters)

Eligibility: Degree in Mechanical/Automobile/Production Engineering or equivalent.

Annual Intake: 120

Suitable for: Tool/Product Designing (Using latest CAD/CAM softwares), Development and Manufacturing, Supervising job of Tool Room/Workshop.

Brief Course contents:
- Computer Fundamentals & MS Windows
- Auto CAD
- CNC Part programming
- Master CAM
- Uni-graphics (Part Modeling, Assembly, Generative Drafting & Detailing, Motion simulation & Manufacturing)
- Pro-Engineer (Sketcher, Part modeling, Assembly Constraints, Kinematics, Drafting & Detailing, Core-Cavity Extraction, Sheet Metal etc.)
- CATIA (Sketch Tools, Part Modeling, Assembly of parts, Generative & interactive Drafting, DMU Kinematics, Surface Modeling, Sheet Metal Design, Core-Cavity Extraction)
- Press Tool Theory
- Project on Press Tool Design
- Mould Theory
- Project on Mould Design
- Project on Press Tool Manufacturing
- Project on Mould Manufacturing
- Tool Engineering
2. Post Diploma/Graduation in CAD/CAM

Duration: 1 year

Eligibility: Diploma/Degree in Mechanical/Production/Tool/Mould Making/Plastic/Automobile Engineering.

Annual Intake: 60


Brief Course contents:

- Computer fundamentals & MS Windows
- Computer Aided Design (AutoCAD)
- Solid Works (Part Modeling, Assembly, Surface Modeling, Detailing & Drafting Import-Export Diagnosis)
- Computer Aided Manufacturing (Manual Part Programming, CNC Milling, CNC Turning)
- DELCAM (Sketch Editing Surface, Power Mill, Tool Path Generation)
- PRO-Engineers (Part Modeling, Detailing & Drawing, Part & Assembly, Sheet Metal, File Converters, N.C. Machining, PROE Manufacturing)
- Unigraphics (Introduction to Sketch, Wire frame & Surfacing, Part Modeling, Assembly, Manufacturing)
- Catia (Surface Modeling, Drafting, Detailing, Assembly, Stress Analysis)
- Finite Element Analysis (Solution of Boundary, ISO Parametric Elements, Meshing, Trusses, General Solids, Numerical Integration & Stability)
- Reverse Engineering Concepts
- Networking Concepts
- Project Work (Designing of Mechanical Assemble, Documenting the Design by extracting the parts, Generating Bill of Material, Process Planning and Developing CNC Part Programmes, Machining the Parts using DNC Links)
- Tool Design (Press Tool Design or Plastic Mould)
3. Post Diploma/Graduation in Tool Designing & Manufacturing

Duration: 1 year

Eligibility: Diploma/Degree in Mechanical/Production/Automobile/Tool & Die/Mould Making Engineering.

Annual Intake: 300

Suitable for: Tool/Component Designing, Product Development, CNC Programming and Machining.

Brief Course contents:

- Auto CAD
- CNC Part programming (Lathe & Milling Machines - Fanuc, Haiden-hain and Siemens etc.)
- Master CAM
- Unigraphics (Part Modeling & Manufacturing)
- Pro-Engineer (Sketcher, Part modeling, Assembly Constraints, Kinematics, Drafting & Detailing, Core-Cavity Extraction, Sheet Metal etc.)
- CATIA (Sketch Tools, Part Modeling, Assembly of parts, Generative & Interactive Drafting, DMU Kinematics, Surface Modeling, Sheet Metal Design and Core Cavity Extraction)
- Press Tool Theory
- Project on Press Tool Design
- Mould Theory.
- Project on Mould Design.
- Project on Press Tool Manufacturing: Progressive Press Tool
4. Certificate Course in Master of CAD/CAM

Duration: 6 months

Eligibility: Degree in Mechanical/Production/Automobile/Tool & Die/Mould Making

Annual Intake: 300

Suitable for: Tool/Component Designing, Product Development, Production Planning & Control, Supervising to Diploma and ITI holders.

Brief Course contents:

- AutoCAD
- Machining on CNC (Turning and Milling)
- Pro-Engineer (Pro/Sheet metal design, Pro/photo renders, Pro-detailing, Pro-manufacturing and Pro-Web Publish)
- CATIA (Sketcher, Solid Modeling, Wire Frame & Surface Molding, Assembly, DMU Kinematics, Generative Drafting, Sheet Metal Design, NC Manufacturing and Core & Cavity)
- UNIGRAFICS (Part Modeling, Assembly, Drafting and Manufacturing)
- Finite Element Analysis (General Analysis procedure, Analysis of beams, Creating Models and Export & import procedure etc.)
- Hypermesh
- Mould Design
- Engineering Drawing
- Metrology
- Machine Tooling
5. Master Certificate Course in Automation & Process Control

Duration: 6 months

Eligibility: Degree in Electrical/Electronics & Instrumentation Engineering.

Annual Intake: 120


Brief Course contents:

- Drive Control and Applications (Advance Electricity and industrial devices, wiring and implementation, AC & DC machines routine test, Sensoring and transducers technology)
- PLC (Advance PLC and interfacing with block applications, LAD, FBD and STL Programming basics, FB, FC, DB block programmes)
- SCADA (Application of TAG-Management, graphics designer, editor, alarm logging and online trend control documentation)
- VLSI & Embedded Systems (Logic designing and testing using HDL and PLD, Interfacing & testing using 8051 and PIC micro controller, ARM7 interfacing and designing)
- Hydraulics & Pneumatics (Pneumatic/Hydraulic circuits, implementation and interfacing with PLC and automation control)
- Process Control Systems (DCS programming and application, PID/APID/PD/PI/P-Application, 20 Sim use & Programming, AutoCAD electrical drawing applications)
- Project work
6. Advance Diploma in CNC Programming Techniques & Practices

Duration: 6 months

Eligibility: Diploma in Mechanical / Production / Automobile / Tool & Die / Mould Making Engineering.

Annual Intake: 400

Suitable for: CNC Programming & Operation, Application Engineer, CNC Supervising, Quality Assurance etc.

Brief Course contents:
- Introduction to Metal Cutting Technology
- AutoCAD
- Master CAM (Modifying Geometry, 2D and 3D Tool Path, Solid Modeling, Surface Modeling, 3D Tool Paths)
- Metrology & Advance measurement Technique
- Unigraphics (Sketch, Primitives, Transform feature Ballons, Curves, Surface Determines, Parametric & Non Parametric, Assembly and Drafting.
- Project Work
7. Advance Diploma in Machine Maintenance & Automation

Duration: 6 months

Eligibility: Diploma/Degree in Electrical or Equivalent.

Annual Intake: 300

Suitable for: Maintenance/Automation Engineer, Supervising the Maintenance technicians.

Brief Course contents:

- Basic Electronics and Electrical Control with Electric Drives.
- Preventive and Breakdown Machine Maintenance (Conventional & CNC Lathe and Milling machines)
- Preventive and Breakdown Machine Maintenance (Grinding and Other Machines) in respect of Electrical, Mechanical and Hydraulic issues.
- AUTOMATION (Computer Fundamentals, ECAD Programming and PLC Programming.
- SCADA Operation
8. Advance Diploma in VLSI & Embedded System

Duration: 6 months

Eligibility: Diploma/Degree in Electronics & Telecommunication, Electrical & Electronics, Electronics and Instrumentation & equivalent.

Annual Intake: 200

Suitable for: Very Large Scale Integration (VLSI) Engineer, Embedded System Engineer, Maintenance Engineers.

Brief Course contents:

- VLSI (Semiconductor physics, Analog/Digital Electronics, EDA Tools, DSCH, CMOS, Layout Design, VHDL, XILINX, Simulation, Model Sim, Altera, Verilog, Schematic design, PLD-FPGA and CPLD, ISP and Project work.

9. Advance Diploma in Structural Design and Analysis (CAD/CAE)

Duration: 6 months

Eligibility: Diploma/Degree in Civil Engineering

Annual Intake: 120

Suitable for: Civil/Structural/Architectural designing, analysis etc.

Brief Course contents:

- AutoCAD
- 3D Max (File, Create, Tools, Groups, Modifier, Animation, Rendering, Lighting, Material Standard/Extensive Primitives, Compound Objects, Doors, Windows, AEC Extended, Stairs, V-ray)
- Microsoft Office
- Stadd Pro (File New Creating, Input Geometry, Input properties, Inspection, Constant Supports, Input loading system, Design create, Steel, Specify Analysis type, Viewing results using output file)
- Adobe Photoshop-CS3 (File, Edit, Image, Layer, Select, Filter, Ansys, View, Window, Colouring of Building, Setting of 3D Building models)
- Revit (File, Edit, Modeling, Drafting, Site, Tools, Setting, Project Family 3D Building, Modify 3D Building, Color Fill Setting, Costing, Automatic Door, Window, Furniture etc.)
- Printing and Plotting.
10. **Advance Diploma in Computer Hardware & Network Management with CCNA**

**Duration:** 12 weeks (4 hrs/day)

**Eligibility:** B.Sc/Diploma/Degree Engineers

**Annual Intake:** 300

**Suitable for:** Maintenance of PCs in respect of Hardware and Networking management with CCNA.

**Brief Course contents:**
- Introduction to Operating system
- Computer Peripherals
- Memory and storage
- Assembly and trouble shooting
- Introduction to Networking

---

11. **Advance Diploma in Computer Hardware & Networking Management**

**Duration:** 6 months

**Eligibility:** ITI/10+2/Diploma/Degree/Computer Science Engineers

**Annual Intake:** 400

**Suitable for:** Maintenance of PCs in respect of Hardware and Networking

**Brief Course contents:**
- Software applications (MS word, Excel, Powerpoint, Notepad)
- Installation, Configuration, Admin, Management and Maintenance
- Windows XP Professionals
- Network Infrastructure
- Microsoft Exchange Server
12. Diploma in Tool & Die Making
(Approved by AICTE and SCTEVT)

Duration: 4 years
Eligibility: HSC/SSC (Minimum 50% marks for General and 40% for SC/ST candidates)
Selection Procedure: All India basis Entrance Test
Annual Intake: 60
Suitable for: Tool/Mould/Dies/Jigs & Fixture Designing & Manufacturing, Product Development, PPC, CNC Machining, Supervising etc. Very much suitable for any modern Tool Room.

In-plant Training: During the 4th year the candidates are deputed for inplant/industrial training for one year. Recruitment Process takes place during 3rd year i.e. March & April every year for inplant training.

Brief Course contents:
- Production Technology
- Engineering Mathematics
- Engineering Drawing
- Material Technology
- Engineering Metrology
- Electrical & Electronics
- Press Tool/Mould Design & manufacturing
- Jigs & Fixture
- Hydraulics & Pneumatics
- CNC & Conventional machining
- Strength of Material
- Heat Engine
- Design/modeling tools (AutoCAD, Pro-E, CATIA),
- MasterCAM
13. Diploma in Mechatronics
(Approved by AICTE and SCTEVT)

Duration: 3 years
Eligibility: HSC/SSC (Minimum 50% marks for General and 40% for SC/ST candidates)
Selection Procedure: All India basis Entrance Test
Annual Intake: 60
Suitable for: Mechanical & Electronics engineering job

Brief Course contents:
- Mathematics
- Applied Science (Physics and Chemistry)
- Engineering Measurement, Drawing and Mechanics
- Fundamentals of Electricals and Electronics
- Mechanical Drafting and Workshop
- Non-conventional Energy Sources
- Manufacturing Engineering and it Practice
- Programming in C++
- Digital Electronics, Strength of Materials
- Material Science
- Industrial Organization & Management
- Metrology & Instrumentation
- Theory of Machines, Measurement Practice
- Control Devices and its practice
- Hydraulics & Pneumatics
- Machine Design Practice and Machine Tools Technology
- Machine Tool Practices
- Programmable Logic Controller Practice
- Micro controllers, Robotics
- Computer Aided Graphics
- CNC Programming
- Digital Signal Processing & its practice

Duration: 1 year
Eligibility: ITI (Electrical/Electronics or equivalent)
Annual Intake: 90
Suitable for: Operation & Maintenance of different Electrical, Mechanical, Electronics, Hydraulics, Pneumatic machines & equipments being used in different industries. Besides they can also be able to do the domestic electrical wiring/repairing etc.

Brief Course contents:
- Lathe/Milling/Grinding Machine Operation
- Fitting Works
- Preventive & Break Down Maintenance of both CNC and Conventional Lathe/Milling/Grinding/Drilling Machine (Mechanical, Electrical, Hydraulics & Pneumatics)
- PLC Operation
- Maintenance of Compressor, DG Set, UPS, Pumps
- Computer Fundamental
- AutoCAD
15. Certificate Course in Advance Machining

Duration: 1 year (2 semesters)
Eligibility: ITI (Fitters)
Annual Intake: 300
Suitable for: CNC/Conventional/Special Purpose Machine Operation, CNC Programming, Operation of AutoCAD etc.

Brief Course contents:
- 1st Semester (Theory & Practical Training in the Training Department)
  Computer Fundamentals, Drawing Studies, AutoCAD, Conventional Turning/Milling/Grinding, EDM/W.EDM, Fitting/Bench work, CNC Part Programming (Milling & Turning), Inspection & Metrology, Practice on Training machines
- 2nd Semester (Practical Training in commercial Production Department)
  Fitting/Assembly, CNC Milling & Turning, Heat Treatment and Inspection/QC

16. Certificate course in CNC Machining

Duration: 1 year (2 semesters)
Eligibility: ITI passed outs in Machinists, Turner, COE etc. trades.
Annual Intake: 60
Suitable for: Programming and Operation of CNC Machines.

Brief Course contents:
- 1st Semester
  Computer Fundamentals, Drawing Studies, AutoCAD, Conventional Turning/Milling/Grinding, EDM/W.EDM, Bench Work/Assembly, Inspection & Metrology, CNC Tutorial, CNC Machining.
- 2nd Semester
  1. CNC Milling/Turning Programming & Operation
  2. Direct manpower to the Commercial Production Cetre in its CNC Machining area.
17. Certificate Course in CNC Programming Techniques & Practices

Duration: 1 year
Eligibility: 10+2/ITI (Fitter)
Annual Intake: 180
Suitable for: Operation of Conventional Milling/Turning/Grinding and CNC Programming and Operation.

Brief Course contents:

- **1st Semester**
  - **Theory:**
  - **Practical:**
    Basic Bench Work & Fitting, Turning/Milling/Grinding Exercises and Auto CAD

- **2nd Semester**
  - **Practice:**
18. **ITI (Machinist)**  
*(NCVT Approved)*

**Duration:** 1 year  
**Eligibility:** 10th/HSC  
**Annual Intake:** 24  
**Suitable for:** CNC & Conventional machine operation.  

**Brief Course contents:**  
- As per NCVT, New Delhi  
  - Workshop Calculation & Science  
  - Engineering Drawing  
  - Pressing, Shaping, Turning, Milling & Grinding  
  - CNC Programming & Operation

---

19. **Certificate Course in Computer Aided Engineering**

**Duration:** 1 year  
**Eligibility:** 10+2 passed outs  
**Annual Intake:** 50  
**Suitable for:** Quality Control/Inspection/Stores/PPC Departments.  

**Brief Course contents:**  
- Conventional Machining (Milling, Turning, Grinding)  
- Drawing studies  
- AutoCAD  
- Inspection & Quality Control  
- Inventory Management  
- CNC Part Programming  
- Process Planning

Duration: 1 year
Eligibility: 10+2/ITI (Fitter)
Annual Intake: 180
Suitable for: Operation of Conventional Milling/Turning/Grinding and CNC Programming and Operation and all the Tool Room machines.

Brief Course contents:

♦ Theory:

♦ Practical:
21. Certificate Course in Welding Technology

Duration: 1 year
Eligibility: HSC Passed outs
Annual Intake: 50
Suitable for: Welding and fabrication

Brief Course contents:
A. Basic Fitting
B. Basic Welding or Manual Metal Arc Welding
C. Advance Welding
   - Metal Active Gas Welding (Mag) or CO2 Welding
   - Metal Inert Gas Welding (MIG)
   - Tungsten Metal Arc Welding (GTAW)
   - Metal Inert Gas Welding (TIG)
   - Submerged arc Welding (SAW)
   - Basic Machine Operation

22. Certificate Course in Machine Operation

Duration: 1 year
Eligibility: HSC/SSC Passed/failed
Annual Intake: 50
Suitable for: Operation of Conventional Milling/Turning/Grinding machines

Brief Course contents:
- Operation of Conventional Milling/Turning/Grinding
- Fitting/Bench Work
- Drawing Studies
- Inspection/Metrology
- Workshop Calculation
## Short Term Training Programmes

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
<th>Hours/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto CAD</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Stad Pro</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Master CAM</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Unigraphics</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Pro-E</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>CATIA</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Advanced Embedded System</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Hardware &amp; Networking</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Hydraulic &amp; Pneumatic</td>
<td>One month</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>20 SIM</td>
<td>Two weeks</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>MAT LAB</td>
<td>Two weeks</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Hypermesh</td>
<td>Two weeks</td>
<td>3hrs/day</td>
</tr>
<tr>
<td>Ansys</td>
<td>Two weeks</td>
<td>3hrs/day</td>
</tr>
</tbody>
</table>

## Tailor Made Training Programmes

- Programmes for Foreign Nationals
- Programmes for faculties of Technical Institutions
- Programmes for Industry professionals
- Induction trainings for newly recruits of Corporate houses
- Modular training programmes for Corporates
Manufacturing Activities

Central Tool Room & Training Centre, Bhubaneswar is enriched with its production infrastructure and capabilities.

CTTC Manufactures:

2. Highly precision components in general and aero-space components in particular.
3. Inspection facilities with the help of CMM, Project Profile, Tally round, Micro-height etc.
5. Clean Room of 10000 Class for Assembly of aero-space components.
6. Our trainees work as direct man-power to the Production Department so that they gain confidence to face the industry-challenges.

Few of our valued customers

- Aeronautical Development Agency
- Indian Space Research Organization
- Hindustan Aeronautics Ltd.
- TATA Motors Ltd.
- Bharat Heavy Plate & Vessels Ltd.
Our Alumni

CTTC, Bhubaneswar believes its alumni members are the real ambassadors of this institute. The institute is proud of its alumni who carry its culture, dedication and spirit in various walks of life. Through their talent, experience and specialized training some of them have come to occupy leadership positions in the corporate world.

Today they are spread throughout the world contributing as professional managers, entrepreneurs, researchers and other specialists.

The Placement Cell of CTTC, Bhubaneswar acts as the nodal agency for maintaining liaison with its alumni all over the world and to involve them in different social development activities. Every year in the month of November the alumni members assemble in different places and plan to shape their future activities. On the eve they also publish a souvenir every year.
Student Activities

CTTC encourages diverse and vibrant student activities which is an integral part of students' life. Those activities provide stimulating avenues to help the students to shape their life. Co-curricular activities viz. Seminars, Quizzes, Sports etc. are being conducted regularly.

The students also participate in different tech-fests and even International Skill Olympiads.

Placement Process and Policies

Placement is an important activity of CTTC-Bhubaneswar. Though CTTC-Bhubaneswar does not give any job guarantee still majority of the students join CTTC with a hope to be placed in a suitable organization. The last four years placement record is quite encouraging. Approximately 8 companies in a month visit CTTC for conducting Campus interviews. The last five years Companies' visit record is as under:

Placement Achievement

No. of Companies Visited
CTTC believes practice makes somebody really perfect. Hence all the courses are designed in such a way that the students can get 80% practical/on-hand experience and 20% theory. Though CTTC tries its best to impart maximum on-hand experience in its Training and Production Departments, still it passes the message to the students that industries are the real learning places for them. Hence, throughout the training process CTTC tries to shape the students best suitable to an industry.

Placement Office
To best utilize the expertise and knowledge of the students, CTTC-Bhubaneswar has formed a Placement Cell which consists of HOD of the Training Department, HOD of the Production Department, Senior most Faculty of Non-Mechanical Stream, Senior Most instructor of Training Workshop and a Placement Coordinator.

Placement Facilities
CTTC Placement Department always tries to give the best comfort to the Recruiters so that the recruiters will be able to churn out the most suitable candidates for their organizations. CTTC provides:

- All local logistic/transport facilities
- Well equipped auditorium for pre-placement discussion with the students
- Comfortable Recruitment Room facilitating with Tele/Video conference system.
- Well designed Conference Hall for Group discussions.
- Dedicated CNC/Conventional Machines for practical test
- Exclusive CAD/CAM Labs for Model Tests
- Special classes/practices on machines/software to the candidates selected by different companies prior to their joining.

Placement Process:
1. The companies aspire to get really-skilled man-power from CTTC-Bhubaneswar can simply send a mail to placement@cttc.gov.in, cttcplacement@satyam.net.in or skrou@cttc.gov.in stating the following:
a. Details of the company viz. Name, Location of the Corporate Office and Plants, Facilities, Products, Major customers etc.
b. Skill set of the candidates
c. No. of vacancies
d. Range of the stipend/salary/remuneration
e. Other facilities viz. PF, ESI, Accommodation, Transportation etc.
f. Process of selection, Tentative Schedule of conducting interview and joining of the selected candidates

2. Pre-placement Talks/Corporate Presentations: This is the forum where the Recruiters inform the students about company’s business, work culture, organization structure, career/ growth opportunities and specific terms & conditions. CTTC recommends a 30 minutes presentation and 15 minutes Question & Answer Session.

3. After the pre-placement Talk, the students convinced by the companies presentation give their option to attend the Selection process.

4. Selection process may contain Written Test, Practical Test, Model Test, Group Discussion, Personal Interview as per discretion of the recruiters.

### Placement Policies:

- CTTC Placement Cell works only for the registered candidates who undergo courses having duration of minimum 6 months.
- Provides one job for one candidate
- The students can be allowed to attend Campus interviews once they complete 50% of the course duration.
- CTTC does not charge any fee to the Recruiters
- Retention of joined candidates is the responsibility of the respective organizations.
Why to recruit from CTTC-Bhubaneswar

• Considered as the best Tool Room & Training Centre in the Ministry of MSME, Govt. of India for last one decade.
• CTTC believes Practice makes perfect; 80% practice and 20% theory
• Modern Tool Room & Production facilities are available under the same roof.
• The students get commercial-production exposure
• Workshops on Communication Skill, Personality Development, Mock-interviews etc. are parts of each training programmes.
• Continuous updation of Course contents according to the industry requirement.
• Special classes/machining/Designing practices for the candidates selected for companies.
• Regular Industry-Institution interactions.
Few of our Valued Recruiters
Bhubaneswar - The Temple City

Capital city of modern state of Odisha and the ancient kingdom of Kalinga, Bhubaneswar is known as the Temple City of India. The city is a fast growing, highly cosmopolitan and is endowed with a variety of cultures. The city represents an attractive amalgamation of ancient architecture and the ebullience of growth and enterprise. Bhubaneswar is a well-known destination for tourists from all over the world. Bhubaneswar, Puri and Konark form the Golden Triangle of Odisha. The famous Jagannath Temple and beautiful seashores at Puri and the Sun Temple of Konark are the main attractions. Other attractions include Lingaraj Temple, Nandankanan Zoological Park, Udayagiri and Khandagiri Caves, Planetarium and many more! Odisha is known for its exquisite handicrafts: Silver Filigree, Horn Work, Pattachitra, Metalware, Applique Work and Stoneware. You will find the Twin Cities of Bhubaneswar and Cuttack very attractive to visit and shop. The weather in February is pleasant and may occasionally require light winter clothing.

Location Map
Certificate of Registration

This is to certify that the OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM of CENTRAL TOOL ROOM & TRAINING CENTRE has been assessed and registered against the provisions of OHSAS 18001:2007.

Certificate of Registration

This is to certify that the ENVIRONMENTAL MANAGEMENT SYSTEM of CENTRAL TOOL ROOM & TRAINING CENTRE has been assessed and registered against the provisions of ISO 14001:2004.

CERTIFICATE

The Certification Body of TÜV SÜD AMERICA INC.

Central Tool Room & Training Centre
Aerospace Division
B-36, Chandaka Industrial Area, PO: KIT
Bhubaneswar – 751024, India


For suitable candidates do contact:

Placement Head
Mobile: 09437965670, 09337118456, Phone: 0674-3011735
E-mail: placement@cttc.gov.in, cttcplacement@satyam.net.in or skroust@cttc.gov.in