



# MSME-TOOL ROOM, HYDERABAD CENTRAL INSTITUTE OF TOOL DESIGN



(A Govt. of India Society, Ministry of MSME, Govt. of India)

(An ISO 9001-2015, ISO 14001-2015, ISO 50001-2011 Certified institution)

## TOOL DESIGN, CAD/CAM/CAE, 3D PRINTING AND CIVIL ENGINEERING COURSES

### NSQF COMPLIANCE COURSES

#### 1. **Course Name: ADVANCE CERTIFICATE COURSE IN CNC MACHINING (ACCCM)**

**Duration: 1560 Hrs. /1 year**

**NSQF Level: 5**

**Course content:**

- ✓ CNC Programming & CNC Machining
- ✓ Engineering Metrology And Quality Assurance (Theory & Practical's)
- ✓ Production Planning & Controls
- ✓ Mastercam: Design, Milling & Turning
- ✓ Delcam: Design, Milling & Turning
- ✓ Total Quality Management
- ✓ Fundamentals of Metal Cutting Tool
- ✓ Hands on practice on Conventional and CNC machines
- ✓ Entrepreneurship
- ✓ Project Work

**Course Fees:** Rs. 35,000/-+ Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** I.T.I (Machinist/Turner/Bench Fitter/Tool & Die Maker or equivalent)

## 2. Course Name: MASTER CERTIFICATE COURSE IN COMPUTER AIDED TOOL ENGINEERING (MCCCAE)

**Duration: 780 Hrs. /6 Months**

**NSQF Level: 6**

**Course Content:**

- Autocad: 2D & 3D
- CREO : Modelling, Surfacing, Assembly & Drafting.
- NX/Unigraphics: Modelling, Surfacing, Assembly, Drafting & Manufacturing.
- Ansys: Structural, Thermal
- Hypermesh: Shell mesh, Solid Mesh
- SolidWorks: Modelling, Surfacing, Assembly & Drafting.
- Design of Press Tools
- Design of Moulds
- Hands on practice on Conventional and CNC machines
- Entrepreneurship
- Project Work

**Course fees:** Rs. 38,000/- + Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)  
For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** Diploma/ Degree in Mechanical Engineering or equivalent.

## 3. Course Name: MASTER CERTIFICATE COURSE IN TOOL DESIGN (MCCTD)

**Duration: 780 Hrs.\6 Months**

**NSQF Level: 6**

**Course Content:**

- Computer Aided Design  
(CAD- Autocad and Solidworks)
- Computer Aided Design & Computer Aided Manufacturing  
(Unigraphics CAD & Unigraphics CAM)
- Design of Jigs & Fixtures
- Design of Press Tools
- Design of Moulds
- Design of Die Casting Dies
- Entrepreneurship
- Hands on practice on Conventional and CNC machines
- Course-work: Project

**Course fees:** Rs. 38,000 /- + Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)  
For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** Diploma / Degree in Mech. Engineering or equivalent.

#### 4. Course Name: MASTER CERTIFICATE COURSE IN CAD CAM (MCCCC)

**Duration:** 780 Hrs. /6 Months

**NSQF Level:** 6

**Course Content:**

- Autocad: 2D& 3D
- CREO: modelling, Surfacing, Assembly & Drafting.
- CATIA: Modelling, Surfacing, Assembly & Drafting.
- NX Unigraphics: Sketcher, Part, Surfacing, Assembly, Drafting & Manufacturing.
- Ansys: Structural, Thermal
- Solidworks: Modelling, Surfacing, Assembly & Drafting.
- CNC Programming & CNC Machining
- Hands on practice on Conventional and CNC machines
- Entrepreneurship
- Project Work.

**Course fees:** Rs. 37,000/- + Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** Diploma/ Degree in Mechanical Engineering or equivalent)

#### 5. Course Name: CERTIFICATE COURSE IN MACHINING (CCM)

**Duration:** 780 Hrs.\6 Months

**NSQF Level:** 5

**Course Content:**

- Production Technology
- Engineering Drawing
- Engineering Metrology
- Fundamentals of Computer
- AutoCAD
- Soft skill

**Course fees:** Rs. 30,000/- + Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** ITI Fitter or its equivalent.

**6. Course Name: CERTIFICATE COURSE IN CNC MILLING (CCCM)****Duration: 780 Hrs.\6 Months****NSQF Level: 4****Course Content:**

- Engineering Drawing
- Engineering Metrology
- Workshop Technology
- Workshop Calculations
- Quality Management System
- Group Discussion and personality improvement
- CNC Milling programming & CNC Machining
- Employability Skill
- CNC Milling Programming - on job training

**Course fees:** Rs. 30,000/- + Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** SSC passed or its equivalent. Minimum age 15 years

**7. Course Name: CERTIFICATE COURSE IN CNC TURNING (CCCT)****Duration: 780 Hrs.\6 Months****NSQF Level: 4****Course Content:**

- Engineering Drawing
- Engineering Metrology
- Workshop Technology
- Workshop Calculations
- Quality Management System
- Group Discussion and personality improvement
- CNC Turning programming & CNC Machining
- Employability Skill
- CNC Turning Programming - On Job Training

**Course fees:** Rs. 30,000/- + Registration fee of Rs.1,000/- for General categories  
(Payment can be made in 3 installments)

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms,  
Registration Fee of Rs.1000/- to be paid.

**Eligibility:** SSC passed or its equivalent. Minimum age 15 years

## NON-NSQF COMPLIANCE COURSES

### 3 MONTHS PROGRAMMES

#### **1. Course Name: CERTIFICATE COURSE IN PRODUCT DESIGN AND ANALYSIS**

**Duration: 3 Months**

**Course Content:**

- Engineering Drawing, GD & T
- Properties of engineering materials
- Concepts of FEA & FEM
- AutoCAD: 2D & 3D
- CREO: Part Modelling, Assembly, Drafting & Sheet Metal
- Ansys: Structural Analysis, Thermal Analysis, Fluent
- Hypermesh: Shell Mesh, Solid Mesh
- Orientation to practical facilities
- Project

**Course fees:** Rs. 19,470/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma/ Degree (Mech. Engineering or equivalent)

#### **2. Course Name: CERTIFICATE COURSE IN PRODUCT DESIGN AND MANUFACTURING**

**Duration: 3 Months**

**Course Content:**

- Engineering Drawing, GD & T
- Properties of engineering materials
- Design Principles & Design Procedure, Basics of DFM
- Types of cutters & operations, selection criteria
- Hands on practical training on conventional & CNC Machines
- AutoCAD: 2D & 3D
- CREO: Modelling, Surfacing, Assembly, Drafting
- CNC Programming: 2D( Milling & Turning)
- Mastercam: Design, Milling & Turning
- PROJECT

**Course fees:** Rs.19,470/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma/ Degree (Mech. Engineering or equivalent)

### 3. Course Name: CERTIFICATE COURSE IN CNC PROGRAMMING & MACHINING

**Duration: 3 Months**

**Course Content:**

- Engineering Drawing, GD & T
- Engineering Metrology
- Autocad-2D &3D
- Process Planning
- Hands on practical training on conventional & CNC Machines
- Types of cutters & operations, selection criteria
- CNC Programming: 2D( Milling & Turning)
- NX/UNIGRAHICS: Modeling, Surfacing, Assembly, Drafting & Manufacturing
- Mastercam: Design, Milling & Turning
- PROJECT

**Course fees:** Rs. 19,470/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma/ Degree (Mech. Engineering or equivalent)

### 4. Course Name: DESIGN OF MOULDS

**Duration: 3 Months**

**Course Content:**

- Engineering Drawing, GD & T
- Design Principles & Design Procedure, Basics of DFM
- Production Planning
- Introduction to Plastic Moulds
- Design considerations of Plastic Injection Mould
- Designing of Plastic Injection Mould
- NX Unigraphics (Part Modelling, Assembly, Mould wizard )
- Hands on practice on Conventional and CNC machines
- PROJECT-Design and Modelling of Plastic Injection Mould

**Course fees:** Rs.19,470/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma/ Degree (Mech. Engineering or equivalent)

### 5. Course Name: DESIGN OF PRESS TOOLS

**Duration: 3 Months**

**Course Content:**

- Engineering Drawing, GD & T
- Design Principles & Design Procedure, Basics of DFM
- Production Planning
- Introduction to Sheet Metal Parameters
- Strip layout Design, Blank design
- Design of Sheet Metal Forming Tool
- CREO (Part Modelling, Assembly, Drafting & Sheet Metal)
- Hands on practice on Conventional and CNC machines
- PROJECT- Design of Press Tool

**Course fees:** Rs. 19,470/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma/ Degree (Mech. Engineering or equivalent)

## ONE MONTH PROGRAMMES

### 1. Course Name: AUTOCAD

**Duration:** 96 Hrs

**Course Content:**

- AutoCAD: 2D &3D

**Course fees:** Rs.6,490/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** ITI with relevant experience / Diploma / Degree (Mech. Engineering or equivalent)

### 2. Course Name: CNC Programming - Milling

**Duration:** 96 Hrs

**Course Content:**

- CNC Programming: Milling

**Course fees:** Rs.6,490/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** ITI with relevant experience / Diploma / Degree (Mech. Engineering or equivalent)

### 3. Course Name: CNC Programming - Turning

**Duration:** 96 Hrs

**Course Content:**

- CNC Programming: Turning

**Course fees:** Rs.6,490/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** ITI with relevant experience / Diploma / Degree (Mech. Engineering or equivalent)

### 4. Course Name: CREO PARAMETRIC

**Duration:** 96 Hrs

**Course Content:**

- CREO: Part Modelling, Assembly, Drafting & Sheet Metal

**Course fees:** Rs. 9,440 /- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

### 5. Course Name: CATIA

**Duration:** 96 Hrs

**Course Content:**

- CATIA: Part Modelling, Surfacing, Assembly, Drafting & Sheet Metal

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

**6. Course Name: SOLIDWORKS****Duration:** 96 Hrs**Course Content:**

- SOLIDWORKS: Part Modelling, Surfacing, Assembly, Drafting & Sheet Metal

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories  
For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

**7. Course Name: NX/UNIGRAPHICS CAD****Course Content:**

- UNIGRAHICS: Part Modelling, Surfacing, Assembly& Drafting

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories  
For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

**8. Course Name: NX/UNIGRAPHICS CAM****Duration:** 1 Months**Course Content:**

- NX Unigraphics: Manufacturing (Milling & Turning)

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

**9. Course Name: ANSYS****Duration:** 96 Hrs**Course Content:**

- ANSYS: Structural Analysis, Thermal Analysis

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories  
For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

**10. Course Name: MASTERCAM****Duration:** 96 Hrs**Course Content:**

- Mastercam: Design, Milling & Turning

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories  
For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)



**11. Course Name: DELCAM****Duration:** 96 Hrs.**Course Content:**

- Delcam: Design, Milling & Turning

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)**12. Course Name: MSC NASTRAN & PATRAN****Duration:** 1 Month**Course Content:**

- MSC Nastran & Patran: Structural, Thermal

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for All categories**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)**13. Course Name: HYPERMESH****Duration:** 96 Hrs**Course Content:**

- Hypermesh: Shell Mesh & Solid Mesh

**Course fees:** Rs. 9,440/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)**14. Course Name: WELDING SIMULATION FOR ARC, TIG & MIG WELDING****Duration:** 96 Hrs**Course content:** Welding simulation on ARC, TIG and MIG**Course fees:** Rs. 7,670/- (Including Registration fee and GST) for All categories**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)**15. Course Name: COMPUTER HARDWARE & NETWORKING****Duration:** 96 Hrs**Course content:** PC, Work station assembly and Maintenance and Networking concepts**Course fees:** Rs. 6,490/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** SSC with Knowledge in Electronics

**16. Course Name: GD&T (Geometrical Dimensioning & Tolerancing)**

**Duration:** 96 Hrs

**Course Content:**

- Read and understand basic GDT symbols on a DRAWING.
- Set up and use basic Geometrical datum references
- In a position to recommend and apply GD&T.

**Course fee:** Rs.5,900/- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

**17. Course Name: NX/UNIGRAPHICS (Multi axis CNC Programming (3, 4 &5))**

**Duration:** 96 Hrs

**Course Content:**

- Introduction to manufacturing methods & various machining processes.
- Introduction to multi-axis machining and 2D & 3D machining processes.
- How to generate Multi-axis tool path & CNC programming.
- Benefits of Multi-axis machining.

**Course fee:** Rs. 9,440/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

## 3D PRINTING COURSES

### 3 MONTHS and 1 MONTH

#### **1. Course Name: Product Design & Development using 3D Printing (FDM Technology).**

**Duration: 3 Months**

**Course content:**

- Solidworks - Part Modelling
- Introduction to Industry 4.0 & Emerging technologies
- Overview on 3D Printing/Additive Manufacturing/Rapid Prototyping
- Comparison between Conventional & Un-conventional manufacturing
- About Methods, Machines, Materials & Manufacturing technologies in A.M
- Assembly & Disassembly of a FFF 3D Printer
- Tutorial on Slicing software Settings & Print Parameters in Cura Engine.
- Hands-on experience exercises on 3D Printer - FFF/FDM
- Mini Project

**Course Fees:** Rs.19,470/- (Including Registration fee & GST) for all categories

**Eligibility:** Diploma/Degree (Mech.Engineering or Equivalent)

#### **2. Course Name: 3D PRINTING**

**Duration: 1 Month/ 96 Hrs.**

**Course Content:**

- Navigating through methods, materials, & manufacturing systems.
- From idea to Prototyping & Production.
- Hands of Assembly of DIY 3D Printer along with slicing software.

**Course fee:** Rs.6,490/- (Including Registration fee and GST) for General categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid.

**Eligibility:** Diploma / Degree (Mech. Engineering or equivalent)

## CIVIL ENGINEERING COURSES

### 3 MONTHS PROGRAMMES

#### **1. Course Name: CERTIFICATE COURSE IN CIVIL ARCHITECTURE**

**Duration: 3 Months**

**Course Content:**

- AutoCAD Civil: 2D ,3D and Architectural planning
- Revit Architecture: 2D & 3D plans, Elevation Designs
- 3Ds Max: 3D Modeling and Interior Design
- Quantity Survey: Architectural and Structural estimation

**Course fee:** Rs. 19,470 /- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent

#### **2. Course Name: CERTIFICATE COURSE IN CIVIL STRUCTURE**

**Duration: 3 Months**

**Course Content:**

- AutoCAD Civil: 2D ,3D and Architectural planning
- Revit Structure: 2D & 3D plans, Elevation Designs
- STAAD Pro: 3D Modeling and Interior Design
- Quantity Survey: Architectural and Structural estimation

**Course fee:** Rs. 19,470 /- (Including Registration fee and GST) for All categories

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent

## ONE MONTH PROGRAMMES

### 1. Course Name: AUTOCAD CIVIL

**Duration: 96 Hrs**

**Course Content:**

- AutoCAD: 2D ,3D and Architectural planning

**Course fee:** Rs. 6,490 /- (Including Registration fee and GST) for General Categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent.

### 2. Course Name: REVIT ARCHITECTURE

**Duration: 96 Hrs**

**Course Content:**

- Revit Architecture: 2D & 3D plans, Elevation Designs

**Course fee:** Rs. 8,850 /- (Including Registration fee and GST) for General Categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent.

### 3. Course Name: REVIT STRUCTURE

**Duration: 96 Hrs**

**Course Content:**

- Revit Structure: Structural Modelling and Detailing

**Course fee:** Rs. 8,850 /- (Including Registration fee and GST) for All Categories

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent.

### 4. Course Name: 3DS MAX

**Duration: 96 Hrs**

**Course Content:**

- 3Ds Max: 3D Modeling and Interior Design

**Course fee:** Rs. 8,850 /- (Including Registration fee and GST) for General Categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent.

### 5. Course Name: STAAD PRO

**Duration: 96 Hrs**

**Course Content:**

- Staad Pro: Structural Design and Analysis

**Course fee:** Rs. 8,850 /- (Including Registration fee and GST) for General Categories

For SC/ST Candidates fee waiver will be provided as per Govt. of India norms, Registration Fee of Rs.590/- to be paid

**Eligibility:** Diploma / B.E/B.Tech in Civil, Architecture or its equivalent.

## INTERNSHIP/ACADEMIC PROJECT WORKS FOR ENGINEERING STUDENTS

### 1. ACADEMIC PROJECT WORK/ INTERNSHIP

**Duration:** 1 Month

- Any one Modeling software with Ansys software

**Course fees:** Rs. 9,440 /- (Including Registration fee and GST) for All categories

**Eligibility:** Pursuing B.E/B.Tech in Mechanical Engineering or its Equivalent

## INDUSTRIAL TRAINING AND ACADEMIC PROJECT WORKS FOR DIPLOMA STUDENTS

### 1. INDUSTRIAL TRAINING

**Duration:** 6 Months

**Course fees:** Rs.6500/- (Including Registration fee and GST) for All categories

**Eligibility:** Pursuing Diploma in Mechanical Engineering or its Equivalent

### 2. DIPLOMA ACADEMIC PROJECT WORK

**Duration:** 12 working days in 3 Months (FEBRUARY, MARCH & APRIL every Year)

**Course Content:** CNC Programming and Machining

**Course fees:** Rs.2360/- (Including Registration fee and GST) for All categories

**Eligibility:** Final year Diploma students in Mechanical Engineering Stream or its Equivalent

**Note:**

- All the above courses will commences on **1st and 3rd Wednesday of every Month.**
- Minimum 90% of attendance is mandatory to receive course completion certificate from the Institute.
- For getting admission trainees should submit their qualification certificates, and Id proof (Aadharcard) at the time of admission.
- Limited Accommodation facility is available on chargeable basis
- For more details contact at 040 - 29561793 or 6309638007,  
E-mail:-onlinetraining1@citdindia.org