

MSME-TOOL ROOM, HYDERABAD

CENTRAL INSTITUTE OF TOOL DESIGN



(A GOVT. OF INDIA SOCIETY, MINISTRY OF MSME)
BALANAGAR, HYDERABAD-500 037, TELANGANA, INDIA

(An ISO 9001: 2008, ISO 29990:2010, ISO 14001:2004 & ISO 50001:2011 Certified Institution)

PROSPECTUS FOR POST GRADUATE COURSES 2016-17

- 1. Post Graduate in Tool, Die & Mould Design (PGTD)**
- 2. Post Graduate in Mechatronics (PGM)**
- 3. Post Graduate in VLSI & Embedded Systems (PGVES)**



ABOUT CITD

The MSME, TOOL ROOM(Central Institute of Tool Design), Hyderabad, is an ISO 9001:2008, ISO 29990:2010, ISO 14001:2004 & ISO 50001 : 2011 Certified premier Institute in India providing specialized training courses in Tool Design & Manufacture/CAD/CAM/CAE, VLSI & Embedded Systems, Mechatronics & Automation. The Institute was established in the year 1968 by the Government of India with the assistance of UNDP and ILO as an executing agency. CITD was converted into a Government of India Society in 1970 under the administrative control of the Ministry of MSME. The Development Commissioner, Ministry of MSME is the ex-officio Chairman of the Governing Council. The Principal Director is the Chief Executive Officer of the Institute.

AIMS & OBJECTIVES

- a. Training of technical personnel in Design and Manufacture of Jigs & Fixtures, Dies & Moulds, Press Tools, CAD/CAM, CAE, VLSI & Embedded Systems, Mechatronics & Automation.
- b. Provision of advisory, consultancy and common facility & service to small scale units including assistance in the design and development of tools for various processes, Calibration of Mechanical Measuring Instruments.
- c. Recommending measures to standardize tools and tooling elements, components of Jigs & Fixtures, Dies & Moulds, Press Tools and other Tools.
- d. Production of Jigs & Fixtures, Press Tools, Dies & Moulds, Gauges and Special Cutting Tools subject to the condition that the job works undertaken by the Institute should suit to the needs of the training.

The Institute has a well equipped Tool Room with sophisticated CNC machines like CNC EDM (Charmilles Roboform 54), CNC Wirecut EDM (AGIE Cut Classic-III & Electronica), 4-Axis & 5-Axis High-Speed Machining Centres, and 3D Coordinate Measuring Machine with Scanning & Digitization facilities. The Institute is equipped with latest version of EMCO Table Top/ MTAB CNC Turning and Milling machines with closed loop system to impart training in CNC Programming.

The Calibration laboratory is set up in CITD with Universal Horizontal Meterscope ULM OPAL600 Carl Zeiss Technology, Germany and Slip Gauge Measuring Unit 826 with Millitron 1240, Mahr, Germany to Calibrate Limit Gauges, Micrometers, Dial Indicators, etc.

The CAD/CAM Centre is equipped with latest hardware like latest Configuration workstations and softwares like AutoCAD, Pro-E, CATIA, ANSYS, Hypermesh Unigraphics, Master CAM, Del CAM, Nastran & Patron, ABACUS, LS-DYNA, Q-FORM, SOLIDCAST, etc.

The Institute is also equipped with an Automation Centre with Programmable Logic Control; Hydraulic, Pneumatic, Electronic Controls with Simulators.

The Institute is also equipped with VLSI & Embedded system Lab having Cadence Synopsis, Mentor Graphics, Xilinx and Matlab.

The Institute has a special Library with a collection of technical books in Tool & other Engineering fields and subscribes to various International journals like CIRP Annals, American Machinist, Journal of Engineering Materials & Technology (ASME), Precision Engineering (JAPAN) and Precision Tool Maker, etc. The Documentation Centre collects and organizes information and data useful for the technological advancement in Tool Engineering. For the dissemination of information, the centre publishes a computerized current awareness abstracting bulletin and provides technical enquiry service.

The Institute also extends its services to the developing countries by imparting knowledge and necessary skills to their personnel in the field of Tool Design, CAD/CAM, VLSI & Embedded Systems, Automation, Mechatronics & Automation.

Various Long Term Courses Conducted by CITD :

1. M.E(CAD/CAM) of 2 years (4Semesters) duration, in collaboration with Osmania University.
2. M.E (Tool Design) of 2 years (4 Semesters) duration, in collaboration with Osmania University.
3. M.E(DFM) of 2 years (4 Semesters) duration, in collaboration with Osmania University.
4. M.Tech (Mechatronics) of 2 years (4 Semesters) duration, in collaboration with JNTUH.
5. Post Graduate in Tool,Die & Mould Design (PGTD) of 1½ year (3 Semesters) duration.
6. Post Graduate in Mechatronics (PGM) of 1½ year 3- (Semesters) duration.
7. Post Graduate in VLSI & Embedded Systems(PGVES)- of 1½ year(3Semesters) duration.
8. Post Diploma in Tool Design (PDTD) – 1 year (2 Semesters) duration.
9. Diploma in Tool, Die & Mould Making – (DTDM) for 10th class passed students with 50% for general & 45% for SC/ST category – 4 years (8 Semesters) duration, approved by AICTE, New Delhi.
10. Diploma in Production Engineering – (DPE) for 10th class passed students –3 years (6 Semesters) duration, approved by AICTE, New Delhi.
11. Diploma in Electronics and Communication Engineering – (DECE) for 10th class passed students –3 years (6 Semesters) duration, approved by AICTE, New Delhi.
12. Diploma in Automation & Robotics Engineering – (DARE) for 10th class passed students –3 years (6 Semesters) duration, approved by AICTE, New Delhi.
13. Advanced CNC Machinist Course. (ACMC)
14. Master Certificate in CAD/CAM. (M-CAD/CAM)
15. Master Certificate in Computer Aided Tool Engineering. (MCTE)
16. Master Certificate in Mechatronics. (MCM)

Short Term Training Programmes

These courses are tailor made to cater to the needs of the specific fields in Tool Design, Manufacture, Mechatronics & Automation and CAD/CAM, VLSI & Embedded Systems for working engineers, supervisors, technicians etc. Separate brochures are available and can be had on request.

Specialized Training Programmes

These courses are conducted to update knowledge of technical personnel working in the Industries in the latest technology in Tool Engineering by conducting seminars, workshops etc,. The Institute conducts in house training programs either at the Industries or at CITD in the field of Tool Design, Mechatronics & Robotics & CAD/CAM , VLSI/ Embedded Systems Training.

Training Courses

The following Post Graduate courses are conducted by the Institute.

Course No.1 – Post Graduate in Tool, Die & Mould Design (PGTD)

Duration	1 ½ years (3 Semesters)
Qualification	B.E/B.Tech. (Mech/ Prod./ Mechatronics/ Automobile/ Aeronautical or equivalent)
Age	Upto 45 Years .
No. of seats	60 Seats (50 Self sponsored + 10 Industrial Sponsored)
Mode of Selection	By Entrance Exam
Course Fee	a) Rs. 25,500 /- per Semester for self sponsored. b)Rs. 32,000 /- per semester for industry sponsored candidates.

Course No.2 – Post Graduate in Mechatronics (PGM)

Duration	1 ½ years (3 Semesters)
Qualification	B.E/B.Tech. (Mech/ECE/EEE/EIE/Automobile/Aeronautical Engg. or equivalent).
Age	Upto 45 Years
No. of seats	40 Seats
Mode of Selection	By Entrance Exam
Course Fee	Rs 25,500 /- per Semester

Course No.3 – Post Graduate in VLSI & Embedded Systems (PGVES)

Duration	1 ½ years (3 Semesters)
Qualification	B.E/B.Tech. (ECE/EEE/EIE /M.Sc (Electronics)or equivalent).
Age	Upto 45 Years
No. of seats	40 Seats
Mode of Selection	By Entrance Exam
Course Fee	Rs 25,500 /- per Semester

Admission Process

The selection of all categories of candidates for the admission to the various courses is done through Counselling based on the merit obtained in the Entrance Test. Course fee is payable on Counselling day and the fee once paid will not be refunded. The trainees should deposit caution money of Rs. 1,000/- which will be refunded on successful completion of the course and not before under any circumstances.

Following categories of candidates are eligible :

- a. Indian nationals studying in the final year of their qualifying certificate in Indian Institutes.
- b. Indian nationals who have obtained their qualifying certificate from Indian Institutes.
- c. Candidates should not be studying in any other course or undergoing any other training at the time of admission.
- d. The seats mentioned in all the courses are provisional. The Institute reserves the right to increase or decrease the number of seats.

Medium of instruction – English

Tentative Date for Commencement of course: **07.09.16.**

Working hours 9:30 A.M. to 4:30P.M. with Sunday as weekly holiday

(Weekly holidays & working hours are liable to change.)

Methodology of imparting training

- a) Lectures supported by audio-visual aids
- b) Film shows in technical subjects
- c) Tool Design exercises.
- d) Technical Literature / handouts on related subjects
- e) Working on computers.
- f) Expert guest Lectures
- g) Factory visits
- h) Personality Development Lectures.

COURSE CONTENT

Course No.1 – Post Graduate in Tool, Die & Mould Design (PGTD)

1	Design Practice and GD & T	11	Ansys
2	Auto CAD	12	Special Cutting Tools
3	Materials for Tooling and Heat Treatment	13	Fluid Power application in Tooling & Automation
4	Metrology & Gauges	14	Hypermesh
5	Design of Jigs & Fixtures	15	CATIA
6	Design of Sheet Metal Working Tools	16	CNC Technology
7	Design of Dies & Moulds	17	CIM & Design for manufacture
8	CREO Parametric	18	Process Planning & Non Traditional Machining
9	Bulk Forming Tools	19	Master cam
10	Unigraphics		
20. Project Work : Last Six Months			
Project from any one of the above subjects should be chosen.			

Course No.2 – Post Graduate course in Mechatronics (PGM)

1	Applied Industrial Pneumatics	6	Microprocessor, Microcontroller and PLC
2	Applied Industrial Hydraulics	7	Sensors Technology and Instrumentation
3	Mechanical Engg. Machining Process and Metrology	8	Mechatronics Technology
4	Electrical Engineering	9	Neural Networks
5	Applied Electronic Control for Automation	10	Fuzzy Logic
11. Project Work : Last Six Months			
Project from any one of the above subjects should be chosen.			

Course No.3 – Post Graduate course in VLSI & Embedded Systems (PGVES)

1.	Foundation of VLSI CAD	8.	DSP Processors Architecture
2.	Micro Controllers for Embedded System Design	9.	Mixed Signal IC Design
3.	CMOS Analog Integrated Circuit Design	10.	System on Chip Design
4.	Embedded Real Time Operating Systems	11.	Embedded Computing Systems
5.	Elective - I a) Micro Electronics Fabrication Technology (or) b) Advanced Digital Signal Processing (or) c) Digital VLSI Design	12.	Elective - III a) Macro Electronics (or) b) Computer Networks (or) c) Low Power VLSI Design
6.	Elective - II a) Advanced Logic Synthesis (or) b) Advanced Operating Systems (or) c) Artificial Neural Networks	13.	Elective - IV a) High Speed VLSI Design (or) b) Image Processing (or) c) Optical Integrated Circuits
7.	Embedded Systems Lab	14.	VLSI Systems Lab
15. Project Work : Last Six Months			
Project from any one of the above subjects should be chosen.			

Distribution of marks in each semester for final grading

The following distribution is made for calculating the total marks at the end of the semester.

Sessional Marks

• Internal Assessment	:	20%
• End Exam	:	80%

Total/Semester		100%

Minimum requirements for Award of Certificate

- a) 75 % attendance
- b) 50 % marks in each subject

Standard of Passing and Award of class

The final grading for the courses shall be awarded on the basis of the total aggregate marks obtained in all semesters.

75% and above	- First Division with Distinction
60% and below 75%	- First Division
50% and below 60%	- Second Division

APPLICATIONS

A. Application form and prospectus can be obtained from Training Department, MSME-Tool Room /Central Institute of Tool Design, Balanagar, Hyderabad – 500 037, on any working day between 9:30 AM and 5:00 PM.(Weekly holiday on Sunday) by paying application cost prescribed by cash or a crossed demand draft **drawn in favor of Principal Director, CITD, Hyderabad**, on any Nationalized Bank, preferably on State Bank of Hyderabad, Balanagar Branch, Hyderabad – 37. **Last date for receipt of filled-in applications is 13. 08.16.**

B. Application form can also be downloaded from our website www.citdindia.org and the filled in application forms can be sent to the Director (Trg), CITD, Hyderabad, along with prescribed application cost by way of Demand Draft **drawn in favor of Principal Director, CITD, Hyderabad.**

Reservation

1. Reservations as per Govt. of India Rules.
2. Age Relaxation for SC/ST category candidates as per Govt. of India Rules.
3. In case of SC/ST candidates, they are required to pay the full semester fee and other fee/deposits or produce a specific sanction letter in the name of the candidate sanctioning the course fee / scholarship from the competent authority viz., District Social Welfare Officer. If, the candidate fails to pay fee or produce a letter for course fee, etc., he will forfeit the seat and the same will be offered to the next SC/ST candidate in the order of merit.

Documents to be handed over at the time of joining

Original certificates of qualifying examination i.e., SSC/Metric/B.E/B.Tech., Transfer Certificates, Date of Birth Certificate, Bonafide Certificate, Integrated Caste Certificate, Latest Income Certificate, Xerox copy of ration card etc applicable.

These original certificates once submitted will not be given back to the trainees under any circumstances till they complete the scheduled training period at this Institute. Therefore candidates are advised to take sufficient number of Xerox copies to keep with them before submitting the originals to CITD at the time of counseling.

Certificate of physical fitness from any Assistant Civil Surgeon and Ophthalmologist. The Institute reserves right to send the candidate for further Medical examination, if necessary.

The trainee should give an undertaking for good conduct and behavior and to abide by the rules & regulation as prescribed by the Institute.

General Terms and Conditions to be Followed During Training:

The course fee for next semester should be paid i.e., by 31st January and 31st July of every year. A late fee of Rs.1000/- per week subject to the maximum of two weeks will be levied if the semester fee is not paid in time. Thereafter Defaulters are liable to be terminated from training. Their results of previous semester will be withheld and they will not be allowed to attend classes for next semester.

Hostel : Limited hostel facility is available. The students will have to pay hostel rent in advance as per rules and regulations of the hostel.

- No traveling allowance or any other allowance will be paid for attending counseling/ Joining the course or on termination thereof.
- Final year trainees are exposed to campus interviews, by intending industries. They can appear for interviews and get absorbed. However, the Institute does not guarantee any employment or absorption.
- The trainees shall not cause any damage or loss to the property of the Institute, failing which they are liable to bear the loss.
- Any information given in the application by the candidate, if, found incorrect after selection, the trainee is liable for such punishment as may be deemed fit including his/her disqualification and / or dismissed from training course.
- The trainees are expected to complete the assignments as per schedule of training programs.
- The trainees will have to strictly undergo the training as per the schedule and instructions and comply with all the rules of discipline as may be in force from time to time. Copying in examination and malpractice during the exams will be viewed seriously.
- The trainees should complete the full course of training and will not be allowed to discontinue the training.
- The trainees are not permitted to join part-time / evening courses of study conducted by any other University / Institute.
- The trainees are expected to maintain utmost discipline and good manners inside and outside the campus and not get involved in activities which cause blemish to the good image of the institute.
- The trainees have to follow the rules and regulations pertaining to any department of the Institute.

- The Institute reserves the right to fill – up any vacant seat from among the candidates present at the time of counseling as per the merit, subject to payment of requisite fee applicable to self sponsored.
- No request for extension of time for submission of proof of pass or submission of original and the trainees have to abide by these rules.
- The Institute reserves the right to alter, vary change and / or modify the rules governing the admissions, or any other procedure from time to time depending upon exigencies of training and the trainees have to abide by these rules.
- The trainees have to follow the rules and regulations made by the Institute pertaining to any department, examination, hostel, discipline etc.
- The Institute reserves the right to terminate the trainee at any time at its discretion for misconduct/indiscipline/irregular attendance, breach of rules etc. In such an event, the course fee paid by the candidates shall not be refunded.
- The Institute shall take all precautionary measures with regard to safety. However, the trainees should decide to join the course at their own free will and at their own risk. In case of any injury or any disablement (temporary/permanent) suffered by the trainees during the course due to any accident or otherwise, the Institute shall not be liable to pay any compensation whatsoever. The trainees shall indemnify the Institute in this account.
- Trainees shall arrange at their cost, all stationary, drawing and other instruments and books prescribed for the course.
- **Ragging of any kind will be viewed seriously and offenders shall be liable to be prosecuted under the law. Their training will be terminated and the fee paid by them shall be forfeited. They will not be allowed to rejoin the semesters/course afresh.**
- The trainees should give an undertaking to abide by the rules & regulations of the Training.

All matters concerning the admission and conducting the course shall be subject to Hyderabad jurisdiction only.

For Further Clarification, Please Contact:

Training Department

Phone Nos.: 040-2377 1959, 23776178

Fax : 040-23772658, **Email :** citdadmissions@citdindia.org,

Website : www.citdindia.org

IMPORTANT DATES

- 1. Last date for submission of application :- 13.08.16**
- 2. Last date for submission of application with late fee Rs 500/- :- 20.08.16**
- 3. Tentative Date of entrance exam :- 22.08.16**
- 4. Declaration of results :- 24.08.16**
- 5. Date of first Counseling :- 30.08.16**
- 6. Date of second Counseling :- 03.09.16**
- 7. Commencement of Courses :- 07.09.16**



Citd - THE INSTITUTE FOR ENHANCEMENT OF TECHNOLOGY