

**PROSPECTUS FOR**

**POST GRADUATE DIPLOMA in  
MECHATRONICS - 2009**



**MSME TOOL ROOM. HYDERABAD  
CENTRAL INSTITUTE OF TOOL DESIGN**

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

Balanagar, Hyderabad-500 037, Andhra Pradesh

Phone Nos.: 23772749, 23776178, 23772747/48 Ext.No:213  
E-mail : [citdcadcam@citdindia.org](mailto:citdcadcam@citdindia.org); Internet : [www.citdindia.org](http://www.citdindia.org).

15.

Last date for receipt of duly filled-in Application (upto 5.00 p.m. at CITD)	:	<b>13-08-2009</b>
Last date for receipt of duly filled-in Application with late fee of Rs.200/- (upto 5.00 p.m. at CITD)	:	<b>20-08-2009</b>
Date of Entrance Test	:	<b>22-08-2009</b>
Results	:	<b>26-08-2009</b>
Date of first counseling	:	<b>08-09-2009</b>
Date of second counseling	:	<b>11-09-2009</b>
Commencing of course	:	<b>16-09-2009</b>

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**N.B.** - In case of non-receipt of Hall Ticket on or before 19-08-2009, the candidate is advised to contact CITD with a pass port size photograph.

## 1. ABOUT CITD

The Central Institute of Tool Design is a premier Institute in Asia providing specialized training courses in Tool Design/Manufacture/ CAD/CAM & Low Cost Automation techniques. 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 SSI. The Development Commissioner, Small Scale Industries, Ministry of MSME, is the ex-officio Chairman of the Governing Council. The Principal Director is the Chief Executive for managing day-to-day affairs of the Institute.

### Aims & Objectives:

- a. Training of technical personnel in design and manufacture of tools, jigs & fixtures, dies & moulds, press tools; CAD/CAM, CNC and LCA techniques.
- b. Provision of advisory, consultancy and common service facilities 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 tools on limited basis, 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, Kellenberger CNC Cylindrical Grinding machine and 3D Coordinate Measuring Machine.

- n. The trainees have to follow the rules and regulations pertaining to any department of the Institute.
- o. No request for extension of time for submission of proof of pass will be entertained.
- p. The Institute reserves the right to alter, vary, change and/or modify the rules governing the admissions.
- q. The rules are liable to change from time to time depending upon exigencies of training.
- r. 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.
- s. The trainees should deposit caution money of Rs.1,000/- which will be refunded at the conclusion of the course and not before under any circumstance.
- t. The no of seats mentioned is provisional. The institute can increase or decrease the no . of seats at its discretion.
- u. The institute also reserves the rights to admit the candidates in the unfilled vacancies, if any, directly, who are otherwise eligible

The trainees should give an undertaking to abide by the terms & conditions supplied at the time of selection.

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- f. The trainees shall not cause any damage or loss to the property of the Institute, failing which they are liable to bear the loss.
- g. 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 dismissal from training course.
- h. The trainees are expected to complete the assignments as per schedule of training programmes. Marks will be deducted for late submission of assignments.
- i. 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 any malpractice during the exams will be viewed seriously.
- j. The trainees should complete the full course of training and will not be allowed to discontinue/rejoin the training for any reason.
- k. The trainees are not permitted to join part-time/evening courses of study conducted by any other University/Institute.
- l. The trainees are advised to visit the facilities available at the institute before joining the course. Any claim/demand or request for additional facilities shall not be entertained.
- m. Any legal proceedings instituted for contravening the terms & conditions of the bond is subject to Hyderabad jurisdiction only.

2.

with Scanning & Digitization facilities. The Institute is equipped with latest versions of EMCO (Austria make) Table Top 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 Metroscope 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 Compaq/IBM/HP workstations, Pentium IV Systems and softwares like AutoCAD 2009, MDT 2007, I-DEAS NX, Pro-E wildfire, CATIA 5.18, ANSYS 11.0, Unigraphics NX, MasterCam X3, Hypermesh 9.0, ADINA 8.0, Solid Works 2008 etc.

The Institute is having an Automation Centre with Programmable Logic Control Systems; Hydraulic, Pneumatic, Electronic Controls with Simulators, working models of Automation Systems, etc.,

The Institute has a special Library with a collection of technical books in Tool Engineering field 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 and Low Cost Automation Techniques.

## 2. TRAINING PROGRAMMES

The training programmes conducted by the Institute are of the following three categories. (Lady Candidates are also eligible).

The long-term courses are:

1. M.E. (Mechanical – CAD/CAM) of two years duration, recognized by AICTE, New Delhi.
2. M.E. (Tool Design) of two years duration.
3. Post Graduate Course in Tool, Die & Mould Design of one and a half year duration (Recognised by the Govt. of India as an advanced Post graduate qualification for recruitment to superior posts).
4. Post Diploma Course in Tool Design of one year duration, approved by AICTE, New Delhi.
5. Diploma course in Tool, Die & Mould Making of four years duration, approved by AICTE, New Delhi, and recognized by the State Board of Technical Education, Govt. of A.P., as equivalent to DME.
6. Advanced Tool Maker's course of two years duration.
7. Post Graduate Diploma in CAD/CAM for Tool Engineering.

The trainees who had gone out of the portals of the Institute are playing key role as Tool Engineers in various establishments in the Country and also abroad.

- b. The Trainee should give an undertaking for good conduct and behavior and to abide by the rules & regulations as prescribed by the Institute.

### 9. General terms and conditions for trainees admitted to regular courses

- a. No traveling allowance or any other allowance will be paid for attending entrance exam, joining the course or on termination thereof.
- b. The trainees are required to bear all costs including the cost of boarding, lodging, transport and other incidental expenditure when they are taken on Industrial visit to places outside Hyderabad.
- c. Trainees are exposed to campus interviews, by indenting Industries. They can appear for interviews and get absorbed. However, the Institute does not guarantee any employment or absorption.

*(It may be noted that the ex-trainees of the Institute have earned excellent reputation with their employers and as such prominent Industries are coming forward to absorb the candidates before completion of their training.)*

- d. Non payment of the second installment of the fee on or before 28-2-2010 will entail termination of training and fee earlier paid will be forfeited.
- e. Hostel facility is available on limited basis and the out station candidates will be allotted hostel if vacancies are available at the time of admissions.

11.

The merit list of the selected candidates will be displayed on the notice board at the Institute and the same will be put on Website: [www.citdindia.org](http://www.citdindia.org).

Candidates have to be present themselves on the dates mentioned below for counseling with all the original certificates & prescribed fees in cash/DD to be considered for admission at **10.00 am at CITD, Balanagar, Hyderabad.**

1. Date of first Counseling for **08.09.2009**  
**PGDM**
2. Date of second Counseling for **11.09.2009**  
**PGDM**

7.5 Once the selected candidates report for training and the fee paid by the candidates on the counseling day, the admissions are treated as closed. Fee once paid will not be refunded.

7.6 Rules made by the Institute regarding selection and closure of admissions shall be final.

#### **8. Documents to be handed over at the time of joining**

Original certificates of qualifying examination i.e., B.E.(Mech.), and other examinations like SSC/Matriculation. The original certificates will not be given back to the trainees under any circumstance till they complete the scheduled training period at this Institute.

- a. Certificate of Physical fitness from any Assistant Civil Surgeon. The Institute reserves the right to send the Candidate for further Medical examination, if, necessary.

4.

#### **2.1 SHORT TERM TRAINING COURSES**

These courses are tailor made to cater to the needs of the specific fields of tool design, manufacture, low cost automation and CAD/CAM for working engineers, supervisors, technicians etc. Separate brochures are available and can be had on request.

#### **2.2 SPECIALISED COURSES**

These courses are meant to update the knowledge of personnel in latest technology in Tool Engineering by conducting seminars, workshops etc. The Institutes conducts various in house training programs at the premises of the requesting Industries in the field of Tool Design, Automation & CAD/CAM.

### **Post Graduate Diploma in Mechatronics**

Duration : 9 Months + 6 Months project  
Qualification : B.E./ B.Tech in Mechanical Engineering / Production Engineering/ Electronics Engineering/Electrical Engineering/Instrumentation Engineering/ Automobile Engineering/ Mechatronics Engineering or recognized Equivalent qualification

No. of seats : 40 seats through entrance test. (Provisional)  
Course fee : Rs. **48,000/-** Payable in three installments, (Rs 16,000 at the time of admission, Rs 16,000 on before 15/12/2009 and Rs 16,000 on before 15/03/2010)

5.

The following categories of candidates are eligible for appearing to the entrance test.

- a. Indian nationals studying in the final year of their qualifying degree in Indian Institutes/Universities.
- b. Indian nationals who have obtained their qualifying degree from Indian Institutes/Universities.
- c. Indian nationals who have obtained their qualifying degree from Institutes/Universities abroad which is recognized by the Association of Indian Universities as an equivalent qualifying degree from India.

3.1 Medium of instruction – **ENGLISH**

3.2 Commencement of course : **SEPTEMBER, 2009**

3.3 Working hours : 9.00 A.M. to 7.00 P.M,with sunday as weekly holiday .The working hours and weekly holiday are liable for change.

3.4 Eligibility of leave:15 days per academic year (Period exceeding 3 days needs medical certificate from a Registered Medical Practitioner)

3.5 **Methodology of imparting training:**

- a. Lectures supported by audio-visual aids.
- b. Film shows on technical subjects.
- c. Tool design exercises for trainees
- d. Technical literature/handouts on related subjects.

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## 6. SYLLABUS FOR ENTRANCE EXAMINATION

- 6.1 **P.G.D.M.-** The Paper will be of objective type with a duration of 2 hrs.
- i. Electrical engineering
  - ii. Basic & Digital electronics
  - iii. Fluid mechanics & Hydraulic System
  - iv. Thermal engineering
  - v. Production Technology
  - vi. Metallurgy & Material Science
  - vii. Measurements & Instrumentation
  - viii. Control Systems
  - ix. General Aptitude (Analytical & Reasoning)

## 7. MODE OF SELECTION

### Selection of Candidates through Entrance Test

Selection is purely based on merit in the written test conducted by CITD, Hyderabad. The successful candidates from GATE Exam, also need to qualify themselves in the Entrance Test conducted by CITD. for PGDCTE course.

### 7.3. Reservation

In respect of candidates selected through entrance examination, 15% of the seats are reserved for SC category, 7½% of the seats are reserved for ST category, 3% for physically handicapped and 27% for OBC candidates as per Govt., of India Rules.

The minimum qualifying marks for general categories 40% and for SC/ST 30%

9.

- e. **Date of Birth:** Indicate your date of birth in the boxes provided.

Example: Date of birth is **31 August 1979**

3	1
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0	8
---	---

1	9	7	9
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Age:

2	5
---	---

Category (Use Code)

For example : In case of others

0	4
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- f. **Father's /Guardian's Name :** One line
- g. **Permanent Address :** Write the complete postal address with PIN CODE to which communication is to be sent.
- h. **Academic Qualification :** As reflected under item No. 3 of the prospectus.
- i. **Attendance Sheet**  
Sl. No. 1, 2 & 3 (for office use)  
The candidate should sign at the appropriate place.  
Sl.No.4,5 candidate should write his/her name and address for communication.
- j. **Hall Ticket**  
Sl. No.1, 2 & 3 (for office use)  
Sl.No.4 candidate should write his/her name and address for communication.

6.

### 3.6 **Evaluation and examination:**

The trainees of the long term courses are evaluated in the following manner.

- Internal assessment of theory by regular assignments and tests.
- Internal assessment of practical exercises (Design and Tool Making)
- Examinations in all the subjects.
- Evaluation of Project Work and viva-voce by external/internal examiners for Course.

### 3.7 **Minimum requirements for Award of Certificate**

- 85% attendance every semester.
- 50% Marks (aggregate)
- Minimum 40% marks in each subject.

### 3.8 **Issue of Certificates And Memorandum of Marks**

The Candidates are awarded certificate and memorandum of marks on successful completion of the training.

### **Detention/Termination**

The trainees are liable for detention/termination for the following reasons, and if, detained, the training period is liable for extension.

- For shortage of attendance (less than 85% to be computed on semester basis)
- For non-submitting the exercises/project work
- For not securing minimum marks in the examinations.

The trainee is liable for termination, in case, if, he/she violates any of the terms and conditions mentioned in the prospectus, and the course fee paid by him/her will not be refunded.

#### 4. ADMISSION TO REGULAR COURSES

Academic year commences in September of every year. Candidates selected through entrance test are admitted to the courses on the basis of merit in the written examination conducted by CITD at Hyderabad on payment of course fee.

##### Use of Unfair Means

Use of unfair means by a candidate at the entrance examination if detected at the time of examination, evaluation or at any other stage will lead to cancellation of his/her examination and debar him/her from appearing in future entrance examinations.

#### 4.1 APPLICATIONS

Prescribed application forms & prospectus can be had from CAD/CAM Department, CITD., Balanagar, Hyderabad-500 037 by cash or a demand draft for Rs.300/- and (Rs. 100/- in case of SC / ST category candidates and **free of cost** in case of physically handicapped) drawn in favour of **Principal Director, CITD., Hyderabad**, on any Nationalized Bank payable at Hyderabad (preferably on State Bank of Hyderabad, Balanagar Branch, Hyderabad-500 037).

The PWD candidates are required to submit attested copy of disability certificate issued by the medical board, with a self addressed and stamped envelop for dispatching the application by post.

Request for application received beyond the stipulated date and also receipt of completed applications after the due date will be summarily rejected. If any applicant do not fulfill the requisite qualifications, his/her application will be summarily rejected. No correspondence in this matter is entertained.

#### 5. INSTRUCTIONS FOR FILLING UP THE APPLICATION FORMS

- a. Please read the instructions given in this section carefully before filling the Application Form.
- b. Candidates who have appeared for the qualifying examination and whose results are awaited can also apply by enclosing a bonafide certificate from the concerned Inst. / College / University. However, they should qualify at the time of counseling. The Institute is not responsible for any delay in declaration of results of the qualifying examination.
- c. **Photograph:** Affix two recent and identical passport size photographs at the appropriate places attested by a Gazetted Officer.
- d. **Name:** Write your name in capital letters as given in the records of the Board of Secondary Education/University. This name should be given in all future correspondence in the same form. Correct address for correspondence required to be given.

One box should be left blank between two parts of the name. In case, the name is long and cannot be accommodated within the boxes provided, you should abbreviate the middle name.