

भारतीय प्रौद्योगिकी संस्थान खड़गपुर
Indian Institute of Technology
Kharagpur



Short Term Course

On

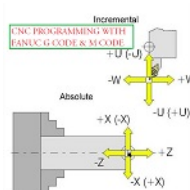
**Advanced CAD-CAM applications in CNC
Machining**

Duration: 5 days
(March 13 – 17, 2020)

Venue: CNC Room, CWISS

Organized by

**Central Workshop & Instruments Service Section
Indian Institute Technology, Kharagpur 721302**



OBJECTIVES OF THE COURSE

The primary objectives of the course are as follows:

- i) Exposing participants to the fundamentals of different types of CAD and CAM software.
- ii) Exposing the participants to different types of CNC machines and their uses in the manufacturing field.
- iii) Enhancing the capability of the participants to make models using CAD-CAM application and their supporting software.
- iv) To make them aware of the theory of Solid modelling and cutter path generation.

COURSE SCHEDULE AND METHODS

9 am to 6 pm with 1-hour lunch break in each day.

The course would consist of lecture sessions, instruction sessions, discussions on problems and practical sessions.

ELIGIBILITY


Category -1 (Teaching Faculty from TEQIP-III approved Colleges):

Teachers of TEQIP-III approved degree level Engineering Colleges only.

Category – 2 (Non-AICTE/QIP Faculty/Student / Industry / others):

- B. E. / B. Tech.(Pursuing) /AMIE/Diploma in Engineering/ or any higher qualification in relevant field.
- Persons from Industries & Govt. Organizations related in this field are also eligible.
- Teachers, Technical staff, Students (final year) of Non-AICTE/TEQ-III approved college.

COURSE CONTENTS

Sl. No	DESIGN COURSE	TOOL COURSE Related the design course	ROOM Related	Days Wise
1	<p style="text-align: center;">AUTOCAD</p> <p>Introduction to AutoCAD Course: Introductory courses provide students with a basic knowledge of AutoCAD's interface, menu options, toolbars and operational commands; basic skills include drawing, editing, layering and plotting.</p> <p>Intermediate AutoCAD Course: These can include hatching, dimensioning, cross-references, and tables and block attributes. Students also be introduced to 3D designs and related drafting skills in preparation for advanced AutoCAD training.</p> <p>Advanced AutoCAD Course: Advanced AutoCAD courses focus on 3D designs, as well as the required navigation and modeling tools used to create 3D drawings with photo realistic rendering. Courses are also included practice session with step by step guide</p>			13 th March, 2020
2.	<p style="text-align: center;">SOLID WORKS</p> <p>Introduction & Advance course: How to build parametric models of Parts and Assemblies, and how to make Drawings of those Parts and Assemblies.3D sketching & 3D sketching with plane, Special features like Mould design etc, Toolbox basic knowledge. Photo view 360- Rendering. Courses are also included practice session with step by step guide.</p>			14-15 th March, 2020
3.	Lecture of Prof. A. Roy Choudhury [Senior faculty of Mechanical Engineering, IIT Kharagpur]: Lecture on “Free form surface modeling and CNC machining.”			15 th March, 2020
4.	CNC Turning Programming & pre-process simulation checking with (i) FANUC-G&M Code. (ii) CAD-CAM : WinNC EMCO	CNC (Lathe) Operation	Turning M/c	16 th March, 2020
5.	CNC Milling Programming & pre – process simulation checking with CAM Software-Roland SRP Player	CNC Milling operation	4-AXIS M/c	16 th March, 2020
6.	Tool path programming & simulation for CNC Wirecut EDM Machine using ELCAM – CAM software.	CNC EDM operation.	Wire Cut machine	17 th March, 2020
8.	 Creating NC Program for various complex shapes 3D Solid Model in different planes using Autodesk Power MILL Software.	5-Axis Milling operation	CNC m/c	17 th March, 2020

Note: The course material will helps in advancing the frontiers of the software.

Principal Co- Ordinators

Professor A. Roy Choudhury

Principal Co-ordinator

Chairman, CWISS
IIT Kharagpur 721 302, West Bengal, India
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Coordinators

Dr. SuprakashPatra

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Mr. Santanu Das

Tech. Supdt., CWISS
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Address for Communication

All queries regarding the course may be addressed to the Principal Coordinator.

Application and course Fee

Category-1 :	Nil
Category-2 :	Rs. 15,000.00

The course is designed to be offered for duration of **5 days**. Total number of seats is limited to 30 (**Thirty**) but since the Short Term Course is meant primarily for teachers from TEQIP-III approved colleges, they will be given first priority for all the seats. The participants will be selected on '**First-Come-First-Served**' basis out of the eligible applicants.

Mode of Payment:

Type - I: Payment should be made by electronic fund transfer. For this, the bank details are as follows:

Account Name : CEP-STC, IIT Kharagpur
Account Number : 95562200002955
Bank Name : SYNDICATE BANK
Bank Branch Name : SRIC, IIT KHARAGPUR
Branch Code : 9556
IFSC Code : SYNB0009556
Swift Code : SYN BIN BB 120
Bank Address : IIT Kharagpur-721302

Note: In case of electronic money transfer, please submit a copy of money transfer record with details of bank, amount, transaction number and date. The bank proof must be attached with registration form.

The course fee includes course materials, tea/coffee and snacks during lecture schedules only. To confirm participation please send the scanned copy and hard copy of the Demand Draft with participant colour photo for identity card to spatraiitkgp@yahoo.in & santdas@rediffmail.com; sumit4s_iit@yahoo.com; by March 02, 2020 positively.

How to Apply

Use the link: <https://erp.iitkgp.ac.in/CEP/courses.htm> to apply ONLINE



Certificate

A certificate of participants will be issued to all the participants from the Office of “Dean, Continuing Education, IIT Kharagpur” after completion of course.

Accommodation Facility

Accommodation will be provided to the TEQIP-III/Non TEQIP-III sponsored participants at the campus Guesthouse.

Food& Accommodation Charge

Category- 1& 2: Rs. Inclusive in course fee

Valedictory Function

Tentative schedule of Valedictory function is on 17thMarch, 2020 at 3:30 pm followed by a grand Lunch at 1:00pm on 17thMarch, 2020.

TA for Participants

Category- 1&2: Borne by the Candidates

How to reach campus at IIT Kharagpur

Situated about 120 km west of Kolkata, Kharagpur can be reached in about 2 hrs. by train from the Howrah railway station of Kolkata or 3 hrs. by car from Kolkata airport. Kharagpur is also connected by direct train services to most major cities of the country. The institute is about 10 minutes drive(5 km) from the Kharagpur railway station. Private taxi, auto rickshaw or cycle rickshaw can be hired to reach the Institute.

Till today Participants Institute

Organisation Name	Location
JNTUH College of Engineering, Hyderabad	Telengana
University of Calcutta	West Bengal
N.I.T. Rourkela	Odisha
NIT, Durgapur	West Bengal
NIT, Raipur	Chatisgarh
NIT, Jamshedpur	Jharkhand
KNIT, Sultanpur	UP
NIT Agartala	Tripura
GITAM University, Hyderabad	Telengana
Cambridge Institute of Technology, Ranchi	Jharkhand
Birbhum Institute of Engineering & Technology	West Bengal
JIS College of Engineering, Kalyani	West Bengal
Malnad College of Engineering	Karnataka
College of Engineering, Cherthala	Kerla
MCKV Inst. Of Engg.	West Bengal
SHIATS, Allahabad	UP
MSME Tool Room, Kolkata	West Bengal
Dumkal Inst. Of Engg. & Tech.	West Bengal
MCE, Hassan, Karnataka	Karnataka
Govt. Polytechnic	Telengana
College of Engg. & Technology, Bhubaneswar	Odisha
Haldia Institute of Technology, Haldia	West Bengal
Heritage Institute of Technology	West Bengal
NIFFT, Ranchi	Jharkhand
PVP Siddhartha Inst. Of Tech., Vijayawada	AP
Hindustan Pressing Pvt. Ltd., Pune	Mumbai
Ideal Institute of Engineering, Kalyani	West Bengal
Swami vivekananda Institute of Science & Tech.	West Bengal
The Rajaas Engineering College	Tamilnadu
YIT-Jaipur	Rajasthan
Bankura Unnayani Inst. Of Engg.	West Bengal
BRCM-CET, Bahal, Bhiwani	Haryana
Institute of Engg. & MGNT.	West Bengal
College of Engg. & Management, Kolaghat	West Bengal
ISM, Dhanbad	West Bengal
STC, KGP	West Bengal
NHIT, Durgapur	West Bengal
IIT Kharagpur	West Bengal
SATI, Vidisha	MP

Univ. College of Engg., Osmania,Hydrabad	Telengana
Murshidabad College of Engg. & Technology	West Bengal
Shir Vishnu Engineering College for Women	AP
Govt. Engineering College, Palakkad	Kerla
BIT, Mesra, Ranchi	Jharkhand
RCC IIT	West Bengal
BIT Durg	Chatisgarh
Techno India	West Bengal
College of Engg., Guindy	Chennai
Madanapalle Institute of Tech. and Science	AP
UIET, Kurukshetra University	Haryana
Univ. College of Engg.	AP
Jhargram Polytechnic	West Bengal
Sathyabama Univ.	Jharkhand
R.V.R.&J.C. College of Engineering	Guntur
S.T.C., SERT, Khamgaon	Mumbai
S.T.C., SERT, Shegaon	Mumbai
Balasure College of Engineering & Tech.	Odisha
DYPCOE&I, Varale, Pune	Mumbai
Sanjivani College of Engineering	Mumbai
K.K. Wagh Instt. Of Engg. Edu. & Research	Mumbai
International centre of excellance in engg. & MGMT.	Mumbai
Shriram Institute of Tech.	MP
TKIET,Waranagar	Mumbai
Sir C.R.R. College of Engineering	Eluru
Jalpaiguri Govt. Engg. College	West Bengal
KIIT	Odisha
Bapurao Deshmukh college of Engg.	Mumbai
Regency Institute of Technology	Puducherry
PES Institute of Technology	Karnataka
P.A. College of Engineering	Karnataka
MPSTME, NMIMS Univ.	Mumbai
ASBESCO India (Pvt.) Ltd.	West Bengal
Salboni Govt. ITI	West Bengal
R.V.College of Engineering	Karnataka
Guru Jambheshwar Univ. of Sci.&Tech., Hisar	Haryana
J.S.S. Academy of Technical Education	Karnataka
MIT&S, Gwalior	MP
Institution of Engineers	Mumbai
Rajiv Gandhi Institute of Tech.	Mumbai
Dumka Engineering College	Jharkhand

Chaibasa Engineering College

Jharkhand

Ramgarh Engineering College

Jharkhand

About CWISS

The Central Workshop and Instruments Service Section (CWISS), a unique service center at IIT, Kharagpur, was established in 1965 to cater to the fabrication of custom made instrument to sustain the Post Graduate and Research activity in the Institute. It is one of the major service sections of the Institute having Mechanical Fabrication Section, Carpentry Section, Electronic Repair Section, Glass Blowing Section and Audio Visual Units. Apart from executing work orders from various Department/Centers/Sections of the Institute, CWISS also undertakes work orders from outside on cost basis.

Important Dates

Last date for receiving application: March 2, 2020

Intimation to the applicants: 3rd March, 2020

Course duration: March 13-17, 2020

Note:

- 1. Only selected participants would be informed by E-mail.**
- 2. You may bring Laptop on your own responsibility for practice study session.**

Contact Us : About Short Term Course

Mr. Sumit Rajan : 9933792374 [E-Mail: sumit4s_iit@yahoo.com]

REGISTRATION FORM

SHORT-TERM COURSE

On

**Advanced CAD-CAM applications in CNC Machining
(March 13 – 17, 2020)**

- Name: _____
[Block Letters: Provide as appearing on your Institute or Official]
- Category [Student/ Academic/Industry]: _____
- If Academic
 - Designation:
 - Institute Name:
 - TEQIP-III approved Institute [Yes/ No] (compulsory) :
- Gender (M/F): _____
- Date of Birth: _____
- Organisation: _____
- Highest academic Qualification: _____
- Address for Correspondence: _____

- Mobile: _____
- E-Mail (Compulsory): _____
- Accommodation required (Yes/No) _____
- Bank Draft/Fund transfer Details:
 - Draft No./Reference No.:Date:
 - Amount Rs. :
 - Issuing Bank with Branch code: _____

Signature of the participant

Approval for Sponsorship participant

We approve the above applicant is a faculty/Student of our organization. He/She is recommended for the course during March 13-17, 2020 at IIT Kharagpur.

Signature with seal of the
Head of the organisation

Date: