



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF MECHANICAL ENGINEERING

Value Added Course

on

CNC Coding

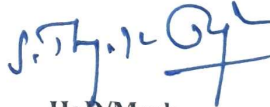
Academic Year : 2022-2023 (EVEN Semester)

Date : 04.01.2023 to 09.01.2023

Duration : 45 Hours

Organized by : CIPET, Madurai


Coordinator


HoD/Mech


31/1/23

Dean (Academic Courses)

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

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DEPARTMENT OF MECHANICAL ENGINEERING

| Content | Details |
|--------------------------------|---|
| Academic Year | 2022-2023 (EVEN Semester) |
| Date | 04.01.2023 to 09.01.2023 |
| Name of the Value-added course | CNC Coding |
| Duration | 45 Hours |
| No of Credit | 2 Credit |
| Category | Theory (15 Hours) and Lab (30 hours) |
| Organized by | CIPET, Madurai |
| External Coordinator | Er.E.Sivakumar, Senior Technical officer, CIPET, Madurai |
| Three Member Committee Members | 1. Dr. S.S. Saravana kumar, ASP & HoD/Mech 2. Dr. S. Senthil, Prof. & Principal 3. Er. N.R. Madhan, AP/Mech |
| Internal Coordinators | Er. N.R. Madhan, AP/Mech |

N.R. Madhan
Coordinator

S.S. Saravana Kumar
HoD/Mech

N.S. - Bm
31/7/23
Dean (Academic Courses)

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY



(An Autonomous Institution - Affiliated to Anna University, Chennai)

S.P.G. Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K. Vellakulam - 625 701, (Near Virudhunagar), Madurai District.

Submitted to the SECRETARY for approval through the PRINCIPAL

Book No

MECH

Date 19/12/2022

SL.No. 43

Value Added Course

Name of the course : ~~8~~ CNC Coding with Live Demo

Duration [Days]

5 Days → 4 Days (External) Conducted by CIPET

No. of students

20 Nos.

1 Day (Internal) Master class by Prof. Meera

Course fees

$2400 + 13\% GST = 2832/-$

Conducted by

CIPET - CSIS Madurai.

Approval may please be sanctioned for above mentioned amount
we have to credit full payment as advance before commencement of
the course.

N.P. 19/12/2022
Signature of Faculty

19/12/22
HOD

Retired 21/12/22
PRINCIPAL

OFFICE USE

- 1) Account Head
- 2) Budget allotted
- 3) Amount committed / Spent so far
- 4) Balance available

Value Added Course Expenses

OM

Treasurer

Secretary

From: Madhan.N.R
Sent: 03 January 2023 16:15
To: 21UME; CIPET CSTS Madurai; atpdc.cipetmdu@gmail.com; Kesavan
Cc: MECH; Maheswari.A; SRI RAMA PRIYA.R.P
Subject: Circular | VAC | IoT/CNC coding | Venue

Dear students,

The Department of Mechanical Engineering intends to offer a value-added course on IoT/CNC coding to second-year students from **January 4 to January 9, 2023**. A list of students interested in IoT/CNC coding is attached.

Venue Details

| Course | Date | Venue |
|------------|--------------------------|---------------|
| IoT | 04.01.2023 to 07.01.2023 | MECH CAD Lab |
| | 09.01.2023 | MT Lab |
| CNC Coding | 04.01.2023 to 07.01.2023 | CIPET Madurai |
| | 09.01.2023 | MECH CAD Lab |

Students are instructed to maintain discipline and to attend all sessions without missing any.

With Regards,

Madhan N R,

Assistant Professor,
Mechanical Department,

KAMARAJ

College of Engg and Tech,
Virudhunagar.

Department of Mechanical Engineering

Title of the Program : Value Added Course on "CNC Coding"

Date: 04.01.2023 to 09.01.2023

Participants : II year

Conducted by : CIPET, Madurai

Venue : CIPET Campus

Syllabus

| Module No | Title | Topics covered |
|-----------|--------------------------------|---|
| 1 | Introduction to CNC | <ul style="list-style-type: none">Numerical controlFunctions of a machine toolConcept of numerical controlHistorical DevelopmentDefinitionAdvantages of CNC machine tools |
| 2 | Blue print reading | <ul style="list-style-type: none">Reading the machining sketchesGeometrical Tolerance symbols.Reading Dimensional Tolerances.Understanding the Views.1 angle & 3 angle projection. |
| 3 | Conventional milling Awareness | <ul style="list-style-type: none">Plain millingStep millingSlot mallingPocket millingCo-ordinate drillingJob setting in vice by dialingJob setting on bed with clamps |
| 4 | CNC Milling- Basic | <ul style="list-style-type: none">Fundamentals of CNC millingFamiliarization of control panelFundamentals of CNC programmingPart programming techniquesMachining practice on CNC MillingPractice session at Industry |
| 5 | CNC Turning | <ul style="list-style-type: none">Work piece setting methodsTool setting methodsPractice on CNC Turning.Exercises on machine & Practice |

N.A.
CoordinatorsJ.S.H.
HoD/Mech

Department of Mechanical Engineering

Title of the Program : Value Added Course on "CNC Coding"

Date: 04.01.2023 to 09.01.2023

Participants : II year

Conducted by : CIPET, Madurai

Venue : CIPET Campus

Approval of Board of Study Meeting

Board of Study Meeting: VI

Mode: hybrid mode

Date & Timing: 11.03.2023 & 10.00 AM

Page No: 14 of 16

006.05.03 : Value Added Courses offered if any

- Dr. B.Balavairavan informed to BoS members that the following value added courses offered for Mechanical Engineering students and the ratification needed to include the credits earned by students from value added courses as over and above credits.

| Sl.No. | Name of the Course | Year | Offered by | Date | No of Students | No of hours |
|--------|---------------------------|----------|--------------------------------------|--------------------------|----------------|-------------|
| 1 | NX-CAD for Beginners | III/Mech | CoE- Manufacturing, NITT | 23.08.2022 to 28.08.2022 | 48 | 46 |
| 2 | CNC Coding with live Demo | II/Mech | CIPET, Madurai | 04.01.2023 to 07.01.2023 | 20 | 23 |
| 3 | IoT | II/Mech | Quantanics Techserv (P) Ltd, Madurai | 04.01.2023 to 09.01.2023 | 23 | 20 |

All the BoS members ratified and approved the same.


Coordinators


HoD/Mech

DEPARTMENT OF MECHANICAL ENGINEERING

Three-member committee meeting for value added course selection

| Agenda | | Value Added Course Selection Meeting |
|------------------------|---|--|
| Date | : | 02/01/2023 |
| Time | : | 03.00 PM |
| Venue | : | HoD/Mech Cabin, Academic Block E, Third Floor |
| Members Present | : | <p>Three Member Committee Members</p> <ol style="list-style-type: none"> 1. Dr. S.S. Saravana kumar, ASP & HoD/Mech 2. Dr. S. Senthil, Prof. & Principal 3. Er. N.R. Madhan, AP/Mech <p>UG Coordinator</p> <ol style="list-style-type: none"> 1. Dr. S. Thanga Kasi Rajan, AP/Mech <p>Chairperson</p> <ol style="list-style-type: none"> 1. Er. N.R. Madhan, AP/Mech <p>Domain Experts</p> <ol style="list-style-type: none"> 1. Dr. P. Narayanasamy, ASP/Mech 2. Dr. M. Prithiviraj, AP/Mech 3. Er. N.R. Madhan, AP/Mech <p>Class representative (2021 – 2025 Batch)</p> <ol style="list-style-type: none"> 1. Mr. Hariharan.N (21ume011), II Year/ Student 2. Mr. Thirumurugan.P (21ume020), II Year/ Student 3. Ms. Alitia B Almeda (21ume029), II Year/ Student 4. Mr. Kishore.S (21ume033), II Year/ Student |
| Minutes of the Meeting | : | <ol style="list-style-type: none"> 1. It is optional to complete a Value-Added Course for Regulation 2021. In this regard a three-member committee has been formed and a meeting is organized to select the course for registration. <ul style="list-style-type: none"> • Meeting started by 3.00 PM. Dr. S.S. Saravana Kumar, Associate Professor & Head of the Department, welcome the gathering. • Er. N. R. Madhan, Assistant Professor & Chairperson of 2021-2025 batch has proposed various courses offered by <ul style="list-style-type: none"> ○ CIPET, Madurai offering CNC Coding and ○ Quantanics Techserv (P) Ltd, Madurai, offering Internet on Things. • Dr.S.Thanga Kasi Rajan, Assistant Professor has advised to maintain SOP for value added course. • Based on the suggestion given by the Subject Expects, 2021-2025 Batch Chairperson, 3 committee members for Value added course and student representative, “CNC coding” and “IoT” courses are agreed to take this IV semester for 2021-2025 Batch students. Courses was selected by the students based on their interested. |

Justification for the Courses selection:

The justification for the course selection were as follows

- i. These courses will be useful for her project work
- ii. It is a 45-hour courses (2 Credits)
- iii. These courses are useful to meet the Industrial Needs
- iv. These courses are in emerging areas.

N.R. Madhan
Three Member Committee Members

Dr. S.S. Saravana kumar, ASP & HoD/Mech
Dr. S. Senthil, Prof. & Principal
Er. N.R. Madhan, AP/Mech

S. Thanga Kasi Rajan
UG Coordinator

Dr. S. Thanga Kasi Rajan, AP/Mech

N.R. Madhan
Chairperson

Er. N.R. Madhan, AP/Mech

P. Narayanasamy
Domain Experts

Dr. P. Narayanasamy, ASP/Mech
Dr. M. Prithiviraj, AP/Mech
Er. N.R. Madhan, AP/Mech

S. Thanga Kasi Rajan
HoD/Mech

A.S. Suresh
Dean Academics

31/7/13

Department of Mechanical Engineering

Title of the Program : Value Added Course on "CNC Coding"

Date: 04.01.2023 to 09.01.2023

Participants : II year

Conducted by : CIPET, Madurai

Venue : CIPET Campus

Summary report

| | | |
|-----------------------|---|---|
| Day 1 (04.01.2023) | : | Programme was inaugurated by the Er.Sivakumar, Head of the training programme of CIPET CTSS, Madurai. Importance of CNC Machine was explained by him. Various CNC and its model various were explained. |
| Day 2 (05.01.2023) | : | Students learnt the M Code and G Code with live demo. Importance and difference application of controllers and microprocessor were explained. |
| Day 3 (06.01.2023) | : | Trainer from tool room of CIPET CTSS Madurai, explained the basics constructions of CNC Coding. Students was creating the M Code and G Code using given component. All the students were simulating his programme using CNC software. |
| Day 4 (07.01.2023) | : | Separate model diagram was given to all the students. Students will create G Code and M Code and simulate the code. Based on this report, evaluation was done. During the entire day, students were working CNC Lathe and Milling for making given component. |
| Day 5 (09.01.2023) | : | Er. R. Sakthivel Murugan explained the tool and usage of MasterCAM software. Afternoon, students create the model using this software. |

Photo Proof



Valedictory function



Examination session



Practical Session



Theory Session

N.R.
Coordinators

S. J. S. S. S.
HoD/Mech



CENTRAL INSTITUTE OF PETROCHEMICALS ENGINEERING & TECHNOLOGY (CIPET)

(Formerly Central Institute of Plastics Engineering & Technology)

(Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India)

HEAD OFFICE : GUNDIRY, CHENNAI - 600 032.



CIPET ஈ ி ி

CENTRE: **MADURAI**.....

Certificate No.: A **163658**

CERTIFICATE

This is to certify that

Shri / Smt. / Mr.

J.ALWYN JOSHUA

Sl/ D/o / M/o

I.JOHN JESURAN

has successfully completed the training programme titled

BASIC PROGRAMMING AND OPERATIONS OF CNC

LATHE & MILLING WITH LIVE DEMO

Organized at **CIPET: CSTS, MADURAI** *from* **04.01.2023** *to* **07.01.2023**



Date: **07.01.2023**

COURSE COORDINATOR

TRAINING I/C - VTC

CENTRE HEAD