



**(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**

**NX CAD – Beginners**

Academic Year : 2022-2023 (ODD Semester)

(Batch I) : 23.08.2022 to 25.08.2022

Date

(Batch II) : 26.08.2022 to 28.08.2022

Duration : 24 Hours

Organized by : Centre for Excellence in Manufacturing,  
NIT – Trichy

**VAC Coordinator**

**HoD/Mech**

**Dean (Academic Courses)**

# KAMARAJ

## COLLEGE OF ENGINEERING & TECHNOLOGY



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### DEPARTMENT OF MECHANICAL ENGINEERING

Content		Details
Academic Year		2022-2023 (ODD Semester)
Date	(Batch I)	23.08.2022 to 25.08.2022
	(Batch II)	26.08.2022 to 28.08.2022
Name of the Value-added course		NX CAD - Beginner
Duration		24 Hours
No of Credit		1 Credit
Category		Hands-on and lab
Organized by		Centre for Excellence in Manufacturing, NIT - Trichy
External Coordinator		Dr. V. Anandkrishnan, Coordinator and Associate Centre Head, CoE, NIT - Trichy
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 Er. R. Sakthivel Murugan, AP/Mech

*N.R. Madhan*  
*R. Sakthivel Murugan*  
VAC Coordinator

*R. Sakthivel Murugan*  
HoD/Mech

*N.S. Bal*  
*26/8/22*  
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 17/08/2022

SL.No. 22

Value Added Course | III year | Nx-CAD

As oral discussion on 15-08-2022, VAC on NX-CAD for III year students is going to conduct by COE-Manufacturing, NIT.

COURSE NAME : Nx-CAD

COURSE FEES. : Rs 2400/Student [Inclusive of Tax]

COURSE DURATION : 23-08-2022 to 28-08-2022 [2 Batches] [Each 3 Days]

Note: 1. The institute required full payment [NO TDS has to be deducted from our end]

2. They required full payment before the course start.

Enclose: company mail - confirmation with acceptance.

S.O  
Signature of Faculty  
17/08/2022

HOD  
17/08/22

PRINCIPAL  
18/08/22

### OFFICE USE

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

Value Added Course

OM

Treasurer

Secretary

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**From:** Sakthivel Murugan.R  
**Sent:** 15 August 2022 12:37  
**To:** 20UME  
**Cc:** HODMECH; Madhan.N.R  
**Subject:** Value Added Course | R2020 | Course Details

Dear Students,

Value Added Course is planned for all III Year Students. It is a mandatory course and an opportunity to avail over and above credit in R2020.

**VAC Details:**

Course Theme: NX beginner's course in design

Organized by : Center of Excellence in Manufacturing, NIT Trichy

Mode: Offline

Duration : 3 Days (2 Batches)

Batch Details: Same as Academics Lab Batches

Batch 1 Date : [23.08.2022](#) to [25.08.2022](#)

Batch 2 Date : [26.08.2022](#) to [28.08.2022](#)

Time : 09.00 A.M to 04.00 P.M

Accommodation in Trichy:

Should be arranged by student itself due to constraints in NITT Hostel.

Certificate Eligibility : 100% Attendance & Eligible mark in the assessment.

Regarding this, a meeting is scheduled to discuss about the course details, accommodation, lunch etc.

Meeting Details:

Meeting Date: [16.08.2022](#)

Day : Tuesday

Time : 10.00 AM

Venue : E15

Students are requested to be available in the venue on proper time.

Meeting Agenda:

- 1.HOD/Mech will address the meeting
- 2.VAC incharge will deliver the Course Details and plan
- 3.Chairperson will deliver the Vote of thanks

Your Kind cooperation is solicited.

Regards,

Sakthivel Murugan R,  
Chairperson.

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**From:** NITT COE  
**Sent:** 22 August 2022 11:05  
**To:** Madhan.N.R  
**Cc:** Sakthivel Murugan.R; HODMECH; Dr.SENTHIL.S; Dr V ANANDAKRISHNAN  
**Subject:** Re: Confirmation Mail | RE: Value Added Course | Request | Slot

Dear Sir,

Please find the requested information for your reference.

**INTERNSHIP FOR KAMARAJ ENGINEERING COLLEGE STUDENTS: 23.08.2022  
to 28.08.2022**

Timing: 9.30 a.m. To 05.30 p.m.

**Batch 1:** (24 Students)

S. No.	Date and Day	Forenoon	Afternoon
1.	23.08.2022 Tuesday	NX CAD Introduction and Sketching	Sketching Practice and NX CAD Modelling
2.	24.08.2022 Wednesday	Modelling Practice	NX CAD Assembly
3.	25.08.2022 Thursday	NX CAD Assembly Practice	NX CAD Drafting

**Batch 2:** (24 Students)

S. No.	Date and Day	Forenoon	Afternoon
1.	26.08.2022 Friday	NX CAD Introduction and Sketching	Sketching Practice and NX CAD Modelling
2.	27.08.2022 Saturday	Modelling Practice	NX CAD Assembly
3.	28.08.2022 Sunday	NX CAD Assembly Practice	NX CAD Drafting

## Syllabus for NX CAD for Beginners

**Introduction:** Introduction to NX - New file overview - Layers - Show and Hide - Working with the Teamcenter Navigator - Working with folders in NX - Create a new folder for your part files

**Sketching:** Sketch overview - Sketch curves - Sketch curve functions - Types of constraints - Sketch dimensions - Convert To/From Reference - Activities: Create constraints.

**Modelling:** Types of swept features - Internal and external sketches - Extrude - Combining bodies using Boolean commands - Body type - Revolve - Sweep along Guide - Create a simple sweep along guide feature - Activities: Swept features - Summary: Swept features. Hole features: Hole overview - Hole dialog box - Hole position and direction options - Hole form and dimension options - Create a General Hole feature - Activities: Hole features - Summary: Hole features. Edge operations: Edge Blend overview - Activities: Edge operations - blends - Chamfer overview - Create a Chamfer - Chamfer options - Activities: Edge operations - chamfers.

**Assembly:** Assembly - Subassembly - Component objects - Component Part Files - Assembly Load Options group - Load states - Scope group - Reference Sets - Saved Load Options - Activities: Assemblies - assembly load options and the Assembly Navigator - Select components - Assembly Navigator display commands - Activities: Assemblies - more navigator options - Part revisions and saving assemblies / Save / Save Work Part Only. Adding and constraining components: General assembly concepts - Bottom-up assembly modeling - Activities: Adding components - create assembly - Move Component / Move Component options - Assembly Constraints - Show Degrees of Freedom - Activities: Adding and constraining components - constrain.

**Drafting** - Create drawings - Change drawing display to - Drafting View Style and View Preferences - The View Creation Wizard - Base View / Projection views - Edit the style of an existing view - Drag views on a drawing - views on a drawing - Activities: Drafting - add views - Dimensions - Activities: Drafting - dimensions - Activities: Drafting - Notes and labels

Thanks and Regards,  
Vignesh S.  
Junior Engineer  
Center of Excellence in Manufacturing  
National Institute of Technology  
Tiruchirappalli- 620 015  
Tamilnadu  
Ph: 9486001131

Approved  
RM

Handwritten signature: R. D. [unclear]

**DEPARTMENT OF MECHCHANICAL ENGINEERING**

Value Added Course on HVAC

Conducted : EXCEL MEP, Bangalore

Year / Sem : III / IV

Course duration : 28.03.2022 to 30.03.2022

Batch : 2019 - 23

Duration of the Course : 24 Hrs

**Approval of Programme Assessment Committee**

Board of Study Meeting: IV

Mode: online (MS-Teams)

Date & Timing: 19.03.2022 & 3.00PM

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**Dr. S. Thanga Kasi Rajan presented the list of value-added courses. The following discussions were made.**

S.No.	Course Title	Total hours	Credits
1.	Programming on Computer Numerical Control		2
2.	Advanced Pro-E		2
3.	Machine Learning		2
4.	Block chain		2
5.	Heating, Ventilation and Air Conditioning		2

The members of BoS recommend and proceed the same.



**DEPARTMENT OF MECHANICAL ENGINEERING**

**Three-member committee meeting for value added course selection**

Agenda	Value Added Course Selection Meeting
Date	: 01/08/2022
Time	: 03.00 PM
Venue	: HoD/Mech Cabin, Academic Block E, Third Floor
Members Present	<p><b>Three Member Committee Members</b></p> <ol style="list-style-type: none"> <li>1. Dr. S.S. Saravana kumar, ASP &amp; HoD/Mech</li> <li>2. Dr. S. Senthil, Prof. &amp; Principal</li> <li>3. Er. N.R. Madhan, AP/Mech</li> </ol> <p><b>UG Coordinator</b></p> <ol style="list-style-type: none"> <li>4. Dr. S. Thanga Kasi Rajan, AP/Mech</li> </ol> <p><b>Chairperson cum CAD Lab Expert</b></p> <ol style="list-style-type: none"> <li>5. Er. R. Sakthivel Murugan, AP/Mech</li> </ol> <p><b>Domain Experts</b></p> <ol style="list-style-type: none"> <li>6. Dr. B. Prabhu, AP/Mech</li> <li>7. Dr. B. Balavairavan, AP/Mech</li> <li>8. Dr. S. Thanga Kasi Rajan, AP/Mech</li> </ol> <p><b>Class representative (2020 – 2024 Batch)</b></p> <ol style="list-style-type: none"> <li>9. Mr. K. Jaideepkumar (20ume016), II<sup>nd</sup> Year/ Student</li> <li>10. Mr. V.V. Premkumar (20ume031), II<sup>nd</sup> Year/ Student</li> <li>11. Mr. M. Harisuriya (20ume030), II<sup>nd</sup> Year/ Student</li> </ol>
Minutes of the Meeting	<p>1. It is optional to complete a Value-Added Course for Regulation 2020. In this regard a three-member committee has been formed and a meeting is organized to select the course for registration.</p> <ul style="list-style-type: none"> <li>• Meeting started by 3.00 PM. Dr. S.S. Saravana Kumar, Associate Professor &amp; Head of the Department, welcome the gathering.</li> <li>• Er. R. Sakthivel Murugan, Assistant Professor &amp; Chairperson of 2020-2024 batch has proposed various courses offered by             <ul style="list-style-type: none"> <li>○ Siemens Centre of Excellence in Manufacturing, National Institute of Technology, Tiruchirappalli and</li> <li>○ CIPET Madurai is offering NX-CAD</li> </ul> </li> <li>• Subject expects are suggested to offer Basic Robotic Simulation.</li> <li>• Dr.S.Thanga Kasi Rajan, Assistant Professor has advised to maintain SOP for value added course.</li> <li>• Based on the suggestion given by the Subject Expects &amp; 2020-2024 Batch Chairperson, 3 committee members agreed to take "NX - CAD" course offered by</li> </ul>

COE in Manufacturing, NIT - Trichy, agree to take this for  
V semester for 2020-2024 Batch students

**Justification for the Course selection:**

The justification for the course selection were as follows

- i. This Course will be useful for her project work
- ii. It is a 24-hour course (1 Credit)
- iii. This Course is useful to beat Industrial Needs

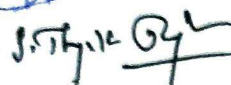
S.S. Saravana Kumar

**Three Member Committee Members**

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

1. 

2. 

3. 

**Domain Experts**

Dr. B. Prabhu, AP/Mech  
Dr. B. Balavarravan, AP/Mech  
Dr. S. Thanga Kasi Rajan, AP/Mech



**UG Coordinator**

Dr. S. Thanga Kasi Rajan, AP/Mech




**Chairperson**

Dr. R. Sakthivel Murugan, AP/Mech



**HoD/Mech**

R.S. — Bar  
26/11/2020  


**Dean Academics**



**Principal**