Department of Mechanical Engineering

Date: 22.01.2020.

To

The principal

Aditya College of Engineering & Technology

Surampalem

Respected sir,

[Through Head of the Department]

Sub: Request for your approval to organize a certification course on "Introduction to Ansys Using CFD" – reg.

It's our greatest pleasure to bring to your kind notice that, we the Department of Mechanical Engineering would like to train our 3rd year B.Tech students in the **Introduction to Ansys Using CFD** adapted initially, with the help of our staff; as the present world is moving over the software design & simulations and also is a part of the Mechanical Engineering. It will be more helpful to the students in theoretical and technical point of view. In this regard we are requesting your permission for further proceedings.

Resource Person	:	Mr. Y V S Yeswanth
		Assistant Professor
		N E C
Honorarium	:	Rs. 10000/-

Forwarded to the Principal

Course Coordinator

PRINCIPAL
Aditya College of
Engineering & Technology
SURAMPALEM- 533 437

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Permanently Affiliated to JNTUK, Kakinada * Approved by AICTE, New Delhi * Accredited by NAAC
Recognized by UGC Under section 2(f) and 12 (B) of UGC Act 1956
ADB ROAD, ADITYA NAGARA, SURAMPALEM-533437

Department of Mechanical Engineering

Date: 23.01.2020

CIRCULAR

All the 3rd year students are here by informed that a one-week program is arranged to enhance the knowledge on **Introduction to Ansys Using CFD,** as per the schedule from 17thFebruary,2020. All interested students can attend the program and utilize the opportunity. The schedule is attached.

Course Coordinator: Dr. N Stanley Ebeneezer
+919160048124

Head of the Department

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Permanently Affiliated to JNTUK, Kakinada * Approved by AICTE, New Delhi * Accredited by NAAC
Recognized by UGC Under section 2(f) and 12 (B) of UGC Act 1956
ADB ROAD, ADITYA NAGARA, SURAMPALEM-533437

Department of Mechanical Engineering

Introduction to Ansys Using CFD Syllabus

1. Introduction to ANSYS CFD workbench
2. Governing equations
3. Partial differential equations (Elliptical, Parabolic and Hyperbolic equations)
4. Meshing methods
5. Post processing Techniques
   a. Finite Element Method
   b. Finite Difference Method
   c. Finite Volume Method
6. Heat transfer problems using FVM
7. Fluid flow problems using FVM
8. Conjugate heat transfer through pipes using FVM

Course Coordinator

Head of the Department

PRINCIPAL
Aditya College of
Engineering & Technology
SURAMPALEM- 533 437

ADITYA COLLEGE OF ENGINEERING & TECHNOLOGY

Permanently Affiliated to JNTUK, Kakinada * Approved by AICTE, New Delhi * Accredited by NAAC
Recognized by UGC Under section 2(f) and 12 (B) of UGC Act 1956
ADB ROAD, ADITYA NAGARA, SURAMPALEM-533437

Department of Mechanical Engineering

Schedule of Introduction to Ansys Using CFD Syllabus:

Day-1:

FN	Inauguration of the Program and speakers talk about the objectives of the event
AN	Introduction to Ansys workbench interface

Day-2:

FN	Introduction to governing equations
AN	Derivation of governing equations

Day-3:

FN	Partial differential equations, classification
AN	Behavior of Elliptical, Parabolic and Hyperbolic equations

Day-4:

FN	Introduction to meshing methods, necessity and applications
AN	Types of methods, 2D meshing techniques and 3D meshing techniques

Day-5:

FN	Post processing techniques and methods
AN	Description of FEM, FDM, FVM

Day-6:

FN	Problem solving using FVM numerical methods
AN	Solving the heat transfer problem using Ansys workbench

Day-7:

FN	Fluid flow problem using Ansys workbench
AN	Conjugate heat transfer problem using Ansys workbench.

Day-8:

FN	Practice session & doubts clarification.
AN	Valedictory

Course Coordinator   **Head of the Department**