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: 18.01.2021.

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 "Design and Simulation using Ansys Workbench" - reg.

It's our greatest pleasure to bring to your kind notice that, we the Department of Mechanical Engineering would like to train our 3rdyear B.Tech students in the Design and Simulation using Ansys Workbench 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

NEC

Honorarium

Rs. 10000/-

Forwarded to Principal.

PRINCIPAL Aditya College of Engineering & Technology PAPALEM- 533

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ADB ROAD, ADITYA NAGARA, SURAMPALEM-533437

## **Department of Mechanical Engineering**

Date: 19.01.2021.

#### CIRCULAR

All the 3<sup>rd</sup> year students are here by informed that a ten days program is arranged to enhance the knowledge on **Design and Simulation using Ansys Workbench**, as per the schedule from 01<sup>st</sup> February, 2021. All interested students can attend the program and utilize the opportunity. The schedule is attached.

Course Coordinator: Dr. Pramod Kumar

+917903406446

Head of the Department

PRINCIPAL
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#### Department of Mechanical Engineering

# Design and Simulation using Ansys Workbench Syllabus

- 1. Introduction to ANSYS workbench
- 2. Geometry design in workbench
- 3. Meshing methods
- 4. Post processing Techniques
- 5. Heat transfer problems
- 6. Fluid flow problems
- 7. Fluent problems practicing
- 8. Conjugate heat transfer through pipes

Course Coordinator

Head of the Department

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## Department of Mechanical Engineering

# Schedule of Design and Simulation using Ansys Workbench 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 Design using design modeler in workbench

AN Practice on Design using design modeler in workbench

Day-3:

FN Meshing techniques & methods implementation

AN Heat transfer problem under steady state

Day-4:

FN Transient heat transfer problems

AN Laminar flow problems in Fluent

Day-5:

FN Turbulent flow problems in Fluent

AN Combined fluid flow and thermal problem in Fluent

Day-6:

FN Static structural analysis on Cantilever beam

AN Transient structural analysis on Cantilever beam and comparison of results

Day-7:

FN Fluid flow problem using Ansys workbench

AN Conjugate heat transfer problem using Ansys workbench.

Day-8:

FN Radiation problem in steady state thermal

AN Radiation between the two surfaces in steady state thermal

Day-9:

FN Fluent practice for mixed flow through pipes

AN Flow through nozzles

Day-10:

FN Practice session & doubts clarification.

AN Valedictory

Yomal Kum~
Course Coordinator

Head of the Department

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