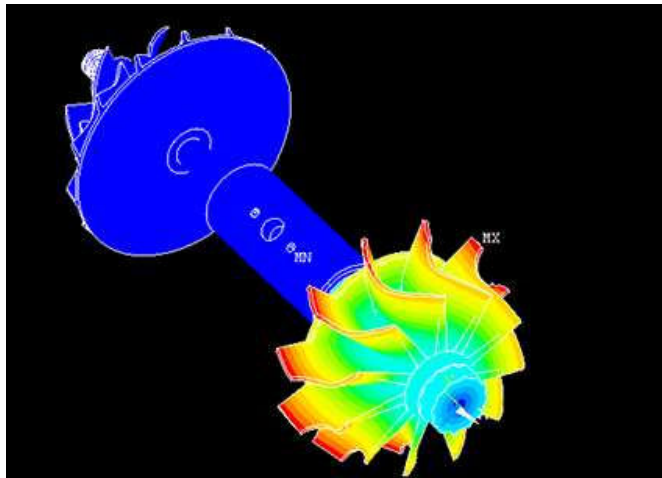*A Certificate Course*
on

FINITE ELEMENT ANALYSIS USING ANSYS APDL

From 15th February 2021 to 20th February 2021

ORGANIZED BY

DEPARTMENT OF MECHANICAL ENGINEERING

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY,

(Approved by AICTE, Permanently Affiliated to JNT University Kakinada,
ACCREDITED BY NAAC and Recognized under 2(f) &12 (b) by UGC New Delhi)
Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113

AVANTHI EDUCATIONAL SOCIETY

Avanthi Educational Society under the Leadership of Sri M. Srinivasa Rao garu as chairman was started in the Year 1991. Within a short span of its establishment, the group has made a remarkable stride in the field of education offering various courses at Under Graduate, Post Graduate, Pharmacy & Engineering levels. This milestone is achieved as the institution carved itself to impart quality and career oriented education, countering the challenges of the modern world through planning, dedication, determination, prompt execution and with the innovative ideas of our advisory board.

Today, Avanthi Educational Society is proud to have a strength of over 16000 students with 15 institutions under its ambit. It is the path of glory towards the success during the last 19 years. The institution has been adjudged many times as the second-best educational institutions in the twin cities and 16th best in all over India through the impartial survey made by the renowned magazine "India Today".

AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

AIET started in the year 1999 and offers various courses at Engineering and PG level. The college is providing with rooms, computer centre, laboratories and seminar hall with audio-visual equipments. Industry Institute interaction is conducted regularly to emphasize on the latest trends in the present market.

It is very near to Narsipatnam. Frequent bus facilities are available both from and to Visakhapatnam and Narsipatnam. Very safe and secure hostel facility is available for Girl students. These are the additional facilities besides excellent academic atmosphere in the college campus.

DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical Engineering department was started in the year 2005 with intake strength of 60 seats, this was increased to 120 students in 2012 and this was increased to 180 students in 2013. The department has well qualified and trained faculty members. It has well equipped laboratories and workshops and includes a CAD/CAM laboratory where students are imparted training in advanced production techniques and design and analysis of machine elements.

The department of Mechanical Engineering has been contributing its humble share of the Mechanical Engineering graduates for national needs. Several of the graduates who have passed out of this department are occupying responsible positions in various Engineering Industries like Hindustan Shipyard Limited, Renault Nissan, Varun Motors, Tata Consultancy Services, HP and IBM and holding responsible positions in the premier educational institutes in and outside India.

ABOUT WORKSHOP

This course is in an **example-based format** for Finite Element Analysis, including various examples for **1D Truss, 2D Truss, 3D Truss, 2D plane stress, 2D plane strain, and 3D solid** elements.In each example, first, **key formulations are provided** to summary the theories. Next, you will be clearly instructed to **write your FEM codes, ANSYS scripts**. Every line of code will be clearly explained. After that, detailed instructions to **extract results (displacements, stress, strain)** from ANSYS and your FEM codes are provided. From there, you will learn how to make comprehensive comparisons between your FEM results and ANSYS to verify your codes and understanding. This will be the best way to prove your understanding and knowledge.

Also, by practicing the examples, you can achieve very good or advanced coding skills in MATLAB and scripting in ANSYS.

TOPICS TO BE COVERED

- Key Formulations in FEA: Truss elements (1D, 2D, 3D), 2D plate (plane strain, plane stress) and 3D Solid elements.
- Practical coding skills in MATLAB for FEA of 1D, 2D, and 3D structures
- Practical skills in ANSYS for FEA of 1D, 2D, and 3D structures
- Advanced skills in writing APDL scripts for Finite Element Analyses
- Source codes (MATLAB + ANSYS) for all FEA examples are available for freely download and modify for future study

For Registration, please contact Mr. M.S.Naidu, Assistant Professor, Department of Mechanical Engineering.

CHIEF PATRON	PATRON	CHAIRMAN
Smt .M.Gnaneswari	Dr. C P V N J Mohan Rao	Sri. V. Harikiran
President ,	Principal,	Head of the Department
Avanthi Educational Society	Avanthi Institute Of Engineering And Technology	Mechanical Engineering

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DEPARTMENT OF MECHANICAL ENGINEERING

CIRCULAR

Date: 08/03/2021

We are happy to inform you that, Department of Mechanical Engineering, AIET is organizing six day certificate course on "Finite Element Analysis using ANSYS APDL Software" from 15th March, 2021 to 20th March, 2021 in Physical mode for all IV B. Tech students. Interested candidates are directed to enrol above course on or before 14/03/2021. For further details contact Course Coordinator Mr. M.S Naidu, Assistant Professor, Mechanical Engineering Department.

Resource Person Details:

1. Sri I. Prakash,
   Design Engineer,
   Data Pro,
   Visakhapatnam.

2. Dr. A. Ramki,
   Assistant Professor,
   Department of Mechanical Engineering,
   Raghu Engineering College,
   Dakamari, Visakhapatnam.

V. Harikiran

HOD of Mechanical Engineering Department

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.

Copy to: Principal, AIET

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DEPARTMENT OF MECHANICAL ENGINEERING

A Six-day workshop on

Finite Element Analysis using ANSYS APDL Software

From 15th March 2021 to 20th March 2021

Syllabus of the Workshop:

Chapter-1

• Introduction about the workshop and Ansys APDL Fundamentals, Various types of tools in ANSYS APDL and their applications

Chapter-2

• ANSYS Mechanical APDL for Finite Element Analysis, 1D, 2D and 3D Elements with examples of ANSYS Elements

Chapter-3

• Introduction to the ANSYS GUI, Enlisting different FEM methods and detailed explanation

Chapter-4

• Introduction to Non-Linear Analysis, Coupling & Constraint Equations

Chapter-5

• Material Properties, Material Library, specifying properties, Boundary Conditions, types of Loads, Applying loads

Chapter-6

• Static Structural Analysis & Thermal Analysis

EXPECTED OUTCOMES

• To understand how to create a 2D in Ansys APDL
• To create a 2D model using sketch driven features
• Create a 2D model using Material Library.
• Application of Loads
• Analysis of Loads under Static and Thermal Analysis.

COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.

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DEPARTMENT OF MECHANICAL ENGINEERING

Finite Element Analysis using ANSYS APDL Software

From 15ᵗʰ March 2021 to 20ᵗʰ March 2021

Schedule

DAY - 1 (15.03.2021)

09:00AM-09:30AM - Inaugural Session & addressing the Guests

09:30AM-11:00AM – Introduction about the workshop and Ansys APDL Fundamentals

11:00AM-11:15AM – Tea Break

11:15AM-1:15PM – usage of Various types of tools in ANSYS APDL and their applications and create, save various types of APDL documents.

1:15PM-02:15PM - Lunch Break

02:15PM-04:00PM - Explanation about Differentiate and switch between a selection of Materials and Properties. Perform various tasks concerning design parameters and geometry selection

DAY – 2 (16.03.2021)

09:00AM-09:30AM - ANSYS Mechanical APDL for Finite Element Analysis

09:30AM-11:00AM – FEA and ANSYS Mechanical APDL

11:00AM-11:15AM – Tea Break

11:15AM-1:15PM – Explanation of 1D, 2D and 3D Elements with examples of ANSYS Elements

1:15PM-02:15PM - Lunch Break

02:15PM-04:00PM - Enlisting different FEM methods and detailed explanation of any one, Introduction to the ANSYS GUI

DAY – 3 (17.03.2021)

09:00AM-09:30AM - Introduction to Non-Linear Analysis

09:30AM-11:00AM – Using the Toolbar & Creating Abbreviations

11:00AM-11:15AM – Tea Break

11:15AM-1:15PM – Coupling & Constraint Equations

1:15PM-02:15PM - Lunch Break

02:15PM-04:00PM - Beam Modelling and Practice Session

DAY – 4 (18.03.2021)

09:00AM-09:30AM - Solid Modeling

09:30AM-11:00AM – An Overview of Solid Modeling Operations

11:00AM-11:15AM – Tea Break

11:15AM-1:15PM – Working with Boolean operations

1:15PM-02:15PM - Lunch Break

02:15PM-04:00PM - Working Plane, importing of 3D models, The ANSYS Mesh Tool, Smart sizing, Meshing m. Free Meshing

DAY – 5 (19.03.2021)

09:00AM-09:30AM - Material Properties

09:30AM-11:00AM – Material Library, Specifying properties

11:00AM-11:15AM – Tea Break

11:15AM-1:15PM – Boundary Conditions, types of Loads, Applying loads

1:15PM-02:15PM - Lunch Break

02:15PM-04:00PM - Solvers a. Types of Solvers, b. Solver Setup, c. Load Step Options, d. Solving Multiple Load Steps

DAY – 6 (20.03.2021)

09:00AM-09:30AM - Static Structural Analysis

09:30AM-11:00AM – Modal Analysis - Workshops, Exercises and Case Studies

11:00AM-11:15AM – Tea Break

11:15AM-1:15PM – Thermal Analysis - Workshops, Exercises and Case Studies.

1:15PM-02:15PM - Lunch Break

02:15PM-04:00PM - Workshops, Exercises and Case Studies and Practice Session, Valedictory Session.

COORDINATOR   **HOD**

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.

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Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam- 531113
From 15-03-2021 to 20-03-2021

Finite Element Analysis using Ansys APDL Software

From 15-03-2021 to 20-03-2021

STUDENTS ATTENDANCE LISTS

S.NO	Roll Number	Name of the student	15.03.2021	16.03.2021	17.03.2021	18.03.2021	19.03.2021	20.03.2021
1	17811A0303	ALLU HARI BABU	✓	X	✓	✓	✓	✓
2	17811A0304	ANKAMREDDY SIVA KUMAR	✓	✓	✓	✓	✓	✓
3	17811A0305	BANDARU KALYAN KUMAR	✓	✓	✓	✓	✓	✓
4	17811A0306	BATHI VENU GOPAL	✓	✓	✓	X	✓	✓
5	17811A0307	BESETTY VINAY	✓	✓	✓	✓	✓	✓
6	17811A0308	BODDETI NEELESH KUMAR	✓	✓	✓	✓	✓	✓
7	17811A0309	BODDU GANESH KUMAR	✓	✓	✓	✓	✓	✓
8	17811A0310	BONDA SWAMY	X	✓	✓	✓	✓	✓
9	17811A0311	CHAVVAKULA VASU	✓	✓	✓	✓	✓	✓
10	17811A0312	CHEERA D V MANIKANTA SWAMY	✓	✓	✓	✓	✓	✓
11	17811A0313	DADI YUGANDAR	✓	✓	✓	✓	✓	✓
12	17811A0314	DANDU PRAVEEN SAI KRISHNA	✓	✓	✓	✓	✓	✓
13	17811A0315	DOSURU PAVAN	✓	✓	✓	✓	X	✓
14	17811A0316	GALI SURESH	✓	✓	✓	✓	✓	✓
15	17811A0317	GANGULAKURTHI SURYA CHARAN	✓	✓	✓	✓	✓	✓
16	17811A0318	GOKIVADA SRAVAN SAI SRINIVAS	✓	✓	✓	✓	✓	✓
17	17811A0319	GOLLAPUDI ADITYA PAVAN	✓	✓	✓	✓	✓	✓
18	17811A0320	GORLI RAJESH	✓	✓	X	✓	✓	✓
19	17811A0322	GUMULURU YASWANTH	✓	✓	✓	✓	✓	✓
20	17811A0323	GYPURI MANI KANTA	✓	✓	✓	✓	✓	✓
21	17811A0324	JERRIPOTHULA MADHAN MOHAN	✓	✓	✓	✓	✓	✓
22	17811A0325	KALLA DHARMA TEJA	✓	✓	✓	✓	✓	X

23	17811A0326	KARRI SAI AKHIL	✓	✓	✓	✓	✓	✓
24	17811A0327	KASIREDDI SATEESH	✓	✓	✓	✓	✓	✓
25	17811A0328	KAYALA NANI	✓	✓	✓	✓	✓	✓
26	17811A0329	KILLADA SIVA SAI KIRAN	✓	✓	✗	✓	✓	✓
27	17811A0330	KODA NAGENDRABABU	✓	✓	✓	✓	✓	✓
28	17811A0331	KOLLI CHIRANJEEVI	✓	✓	✓	✓	✓	✓
29	17811A0332	KOLLU SAINADH	✓	✓	✓	✓	✓	✓
30	17811A0333	KONA PAVAN KUMAR	✓	✓	✓	✓	✓	✓
31	17811A0334	KONDALA BHANU	✗	✓	✓	✓	✓	✓
32	17811A0335	KOTARI JAYANT KUMAR	✓	✓	✓	✓	✓	✓
33	17811A0336	KOVAGANA RAJESH	✓	✓	✓	✓	✓	✓
34	17811A0337	KUNDRAPU HARIBABU	✓	✓	✓	✓	✓	✓
35	17811A0338	MAJJI SRINIVASU	✓	✓	✓	✗	✓	✓
36	17811A0339	MAMIDI SAI	✓	✓	✓	✓	✓	✓
37	17811A0340	MATTHURTHI VAMSI SIVA KRISHNA	✓	✓	✓	✓	✓	✓
38	17811A0341	NAKKA ANIL	✓	✓	✓	✓	✓	✓
39	17811A0342	NALLABELLI GANESH NAIDU	✓	✓	✓	✓	✓	✓
40	17811A0343	NAMMI RAMAKRISHNA YADAV	✓	✓	✓	✓	✓	✓
41	17811A0344	NANEPALLI MOHAN	✓	✓	✓	✓	✓	✓
42	17811A0345	NIDDARA RAMA KRISHNA	✓	✓	✓	✓	✓	✓
43	17811A0346	NUTHALAPATI NAVEEN BABU	✓	✓	✓	✓	✗	✓
44	17811A0347	PALURI VENKATA SAI YASWANTH	✓	✓	✓	✓	✓	✓
45	17811A0348	PEELA SANJAY	✓	✓	✓	✓	✓	✓
46	17811A0349	PITHANI UMA MANIKANTA	✓	✗	✓	✓	✓	✓
47	17811A0350	PULLAGURA GOPI CHANDU	✓	✓	✓	✓	✓	✓
48	17811A0351	REDDI SRINU	✓	✓	✓	✓	✓	✓
49	17811A0352	SAKALA AVINASH KUMAR	✓	✓	✓	✓	✓	✓
50	17811A0353	SANIVADA ANANTH SAIKRISHNA	✓	✓	✓	✓	✓	✓
51	17811A0354	SARIPALLI PAVAN CHANDAR RAJU	✓	✓	✓	✓	✓	✓
52	17811A0355	SATYADA ANANDPAUL	✓	✓	✓	✓	✓	✓
53	17811A0356	SEELAMANTHULA MADHU BABU	✓	✓	✓	✓	✓	✓
54	17811A0357	SHAIK MUBEEN	✓	✓	✓	✓	✓	✗
55	17811A0358	SIRALA NAGU	✓	✓	✓	✗	✓	✓

No	Roll No	Name						
56	17811A0359	TALAPUREDDY VENKATA PAVAN KUMAR	✓	✓	✓	✓	✓	✓
57	17811A0360	VALIMARAKA KAMESWARA RAO	✓	✓	✓	✓	✓	✓
58	17811A0361	VASIREDDI SWAMY	✓	✓	✓	✓	✓	✓
59	17811A0362	VEERAVILLI SAI PRASAD NAIDU	✓	✓	✓	✓	✓	✓
60	17811A0363	VIROTHI HEMANTH SATYA KUMAR	✗	✓	✓	✓	✓	✓
61	17811A0365	MARISETTI V S R C VASANTH NAIDU	✓	✓	✓	✓	✓	✓
62	18815A0301	AERLANKI BHANU PRASAD	✓	✓	✓	✓	✓	✓
63	18815A0302	AMALAKANTA PAVAN	✓	✓	✓	✗	✓	✓
64	18815A0303	ATHAVA SAI KUMAR	✓	✓	✓	✓	✓	✓
65	18815A0304	BALLA SAIBABA	✓	✓	✓	✓	✓	✓
66	18815A0305	BEHERA NAVEEN	✓	✓	✓	✓	✓	✓
67	18815A0306	BELLAMKONDA SAI BHASKAR VARMA	✓	✓	✓	✓	✓	✓
68	18815A0307	BHEESETTI HEMA SANYASI NAIDU	✓	✓	✓	✓	✓	✓
69	18815A0308	BODDU VENKATRAM	✓	✓	✓	✓	✓	✓
70	18815A0309	BOLISETTI LOKSAI	✓	✗	✓	✓	✓	✓
71	18815A0310	CHADARAM RAKESH SIVARAJ	✓	✓	✓	✓	✓	✓
72	18815A0311	CHINNI NANIBABU	✓	✓	✓	✓	✓	✓
73	18815A0312	DADI LOKESH	✓	✓	✓	✓	✗	✓
74	18815A0313	EPPILI THARUN KUMAR	✓	✓	✓	✓	✓	✓
75	18815A0314	GANISETTY BHASKARRAO	✓	✓	✓	✓	✓	✓
76	18815A0315	GANTA NAGA PHANINDRA	✓	✓	✓	✓	✓	✓
77	18815A0316	GONNA MADHAV RAO	✓	✓	✓	✓	✓	✓
78	18815A0317	GUDE SAI KUMAR	✓	✓	✗	✓	✓	✓
79	18815A0318	GUDEPU JAWAHARSAIMANI	✓	✓	✓	✓	✓	✓
80	18815A0319	GURUDATTA RAMANA SAI KUMAR ADARI	✓	✓	✓	✓	✓	✓
81	18815A0320	INDALA JAGADEESH	✓	✓	✓	✓	✓	✓
82	18815A0321	JALUMURI SAI	✓	✓	✓	✓	✓	✓
83	18815A0322	KANDREGULA NAVEEN	✓	✓	✓	✓	✓	✓
84	18815A0323	KANDREGULA RAMESH	✓	✓	✓	✓	✓	✓
85	18815A0324	KARRI MUKHESH	✓	✓	✓	✓	✓	✗
86	18815A0325	KARRI NOOKA PAVAN KUMAR	✓	✓	✓	✓	✓	✓
87	18815A0326	KARRI SRIKANTH	✓	✓	✓	✓	✓	✓
88	18815A0327	KASAVARAJU PREM KUMAR	✓	✓	✓	✓	✓	✓

No.	Roll No	Name						
89	18815A0328	KASIREDDY TEJA	✓	✓	✓	✓	✓	✓
90	18815A0329	KATARI UDAY KUMAR	✓	✓	✓	✓	✓	✓
91	18815A0330	KOMMOJU DURGA RAJESH	✓	✓	✓	✗	✓	✓
92	18815A0331	KONAKALLA JASWANTH	✓	✓	✓	✓	✓	✓
93	18815A0332	KOYYA KRISHNA	✗	✓	✓	✓	✓	✓
94	18815A0333	KUNDRAPU MADHUBABU	✓	✓	✓	✓	✓	✓
95	18815A0334	KUPPINA MANGA RAJU	✓	✓	✓	✓	✓	✓
96	18815A0335	MAHAMMAD SARTAZ AZEEZ	✓	✓	✓	✓	✓	✓
97	18815A0336	MALLA TEJA SAI	✓	✓	✓	✓	✓	✓
98	18815A0337	MARADANA CHAITANYA	✓	✓	✓	✓	✓	✓
99	18815A0338	MARISETTY GANESH	✓	✓	✓	✓	✓	✓
100	18815A0339	MITTIPATI RAJESH	✓	✓	✓	✓	✓	✓
101	18815A0340	MUMMINA DURGA SATISH	✓	✓	✓	✓	✓	✓
102	18815A0341	NARAM YUGANDHAR NAGA GANESH	✓	✓	✓	✓	✓	✓
103	18815A0342	NAVARA SAI KUMAR	✓	✓	✓	✓	✗	✓
104	18815A0343	PADALA NAVEEN KUMAR	✓	✓	✓	✓	✓	✓
105	18815A0344	PANAPANA PAVAN KALYAN	✓	✓	✓	✓	✓	✓
106	18815A0345	PAVADA AJAY NAVEEN	✓	✗	✓	✓	✓	✓
107	18815A0346	PENTAKOTA NAGA SAIRAM	✓	✓	✓	✓	✓	✓
108	18815A0347	PETLA TRINADH SAI SWAMY NAIDU	✓	✓	✓	✓	✓	✓
109	18815A0348	POLIPALLI SRINU	✓	✓	✓	✓	✓	✓
110	18815A0349	PRAGADA CHANDRA SEKHAR RAO	✓	✓	✓	✓	✓	✓
111	18815A0350	PRUDHVI RAJU MARISETTI	✓	✓	✓	✓	✓	✓
112	18815A0351	REDDI HARI PRASAD	✓	✓	✓	✓	✓	✓
113	18815A0352	REPAKA RAKESH KUMAR	✓	✓	✓	✓	✓	✗
114	18815A0353	RUTTALA VENKU NAIDU	✓	✓	✓	✓	✓	✓
115	18815A0354	SARAGADAM SURYATEJA	✓	✓	✓	✓	✓	✓
116	18815A0355	SEETHINA HEMANTH	✓	✓	✓	✓	✓	✓
117	18815A0356	SENAPATI RAJU	✓	✓	✗	✓	✓	✓
118	18815A0357	SINGIDI SATEESH	✓	✓	✓	✓	✓	✓
119	18815A0358	SIRAPURAPU PRASAD	✓	✓	✓	✓	✓	✓
120	18815A0359	SONTENA MANIKANTA	✓	✓	✓	✓	✓	✓
121	18815A0360	SURISETTY ANU VAMSI	✓	✓	✓	✓	✓	✓

122	18815A0361	TALARI JNANESWARAO	ᵛ				ᵛ	ᵛ
123	18815A0362	TAMANARA PREM KUMAR	X				ᵛ	ᵛ
124	18815A0363	THALADA RAKESH	ᵛ		ᵛ		ᵛ	ᵛ
125	18815A0364	THUMU DURGA PRASAD	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	X
126	18815A0365	TURUSALA SATISH	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
127	18815A0366	VANGALAPUDI VEERA BABU	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
128	18815A0367	VELLANKI PAVAN SAI	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
129	18815A0368	VILLURI MURALI KRISHNAM NAIDU	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
130	18815A0369	VIYYAPU PRASANNA A N MODAKONDALA RAO	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
131	18815A0370	VODUGONDA MOULI	ᵛ	ᵛ	ᵛ	X	ᵛ	ᵛ
132	18815A0371	YALAMANCHILI SRINU	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
133	18815A0372	YALLA SANYASINAIDU	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
134	18815A0373	YARRAMSETTI LAXMINARAYANA	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
135	18815A0374	YEDLA THRIMURTHULU	ᵛ	ᵛ	ᵛ		ᵛ	ᵛ
136	18815A0375	YEDURI PRAKASH	ᵛ	ᵛ	ᵛ	ᵛ	X	ᵛ
137	18815A0376	ADARI SRIKANTH	ᵛ	ᵛ	ᵛ		ᵛ	ᵛ
138	18815A0377	KOILADA PAVAN KALYAN	ᵛ	ᵛ	X	ᵛ	ᵛ	ᵛ
139	18815A0378	SEERAMREDDI SESHADRI	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
140	18815A0379	GEDELA UDAY CHARAN	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
141	18815A0380	KUPPILI TEJESWAR REDDY	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
142	18815A0381	PILLA KIRAN	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
143	18815A0382	TAMANARA RAJESH	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
144	18815A0383	BODDEDA ARAVIND	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
145	18815A0384	KANITHI SRINIVAS	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ
146	18815A0385	MADDALA BHARGAV	ᵛ	X	ᵛ	ᵛ	ᵛ	ᵛ
147	18815A0386	KOTANA SAIRAM	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ	ᵛ

COORDINATOR

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Permanently Affiliated to JNT University Kakinada,

ACCREDITED BY NAAC and Recognized under 2(f) &12 (b) by UGC, New Delhi)

Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113

CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Mrs _____of_____

____ ___ _ _____ has participated in the Certificate Course entitled on

"FINITE ELEMENT ANALYSIS USING ANSYS APDL SOFTWARE" during from

15ᵗʰ March 2021 to 20ᵗʰ March 2021 in Department of Mechanical Engineering.

COORDINATOR   HOD   PRINCIPAL

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF MECHANICAL ENGINEERING

Dt:22/03/2021

BRIEF REPORT

Department of Mechanical Engineering, Avanthi Institute of Engineering and Technology had organized a certificate course on **"FINITE ELEMENT ANALYSIS USING ANSYS APDL SOFTWARE"** from 15th march 2021 to 20th march 2021

We had Mr. I. Prakash, Design Engineer from Data Pro as the speaker to explain each and every detail about ANSYS, APDL fundamentals. He started off with what the course is about and gave a proper definition. Coming to the need ANSYS mechanical APDL for finite element analysis he extensively explained the plus points of this technology. One of the major advantage explained about Avionics & Flight Controls, Beam modelling, solid modelling are also explained.

Dr. A. Ramki, Assistant Professor, Mechanical Engineering Department, Raghu Engineering College as another speaker explained the limitation is Large amount of data is required as input for the mesh used in terms of nodal connectivity and other parameters depending on the problem. They are generally used for Biomedical Applications, Plate Dynamics, Industrial and Business Management. Some of the topics are focused during course Thermal analysis, key formulation, practical coding skills. And also explained about coupling & Constraint Equations, Smart meshing, smart sizing. Finally concluded the real time applications of Finite element Analysis and how it is utilized in mechanical related industries.

COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.