

**ALVA'S INSTITUTE OF ENGINEERING AND
TECHNOLOGY**

Shobhavana Campus, Mijar - 574225, Moodbidri.
Dakshina Kannada Karnataka, India.



Department of Mechanical Engineering

CERTIFICATION COURSE

on

"ANSYS"

ACADEMIC YEAR

2019-2020



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Dated 4.10.2019

CIRCULAR

The Certification course/ Workshop on **ANSYS**, will be conducting from **7th October 2019 to 11th October 2019** in **CAMD Lab**, Mech block, AIET, Mijar. All registered students are hereby informed to attend and actively participate in the course.


(HOD)
H. O. D.
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Date: 4/10/2019

Place: AIET, Moodbidri.

APPROVAL LETTER

To,

The Principal,
AIET, Moodbidri

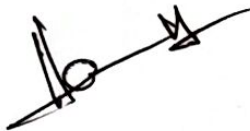
Respected Sir,

Sub: - Approval for Organizing the Students Certification/Training Program on
"ANSYS"-Reg.

With reference to the subject cited above, I would like to bring to your kind notice that, the Department is planning to host a Student Training Program/certification course on "**ANSYS**" from "**7th October 2019 to 11th October 2019**".

Kindly consider the above request and approve the same for further proceedings.

Thanking you Sir.



Coordinator:

Mr. Pramod V B

Mr. Kiran C H

Mr. Praveen K C



Principal:

PRINCIPAL

**Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K**



Head of the Department:

H. O. D.

**Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225**

Resource Person

Mr. Pramod V B, Mr Kiran C H and
Mr. Praveen K C

AIET, Moodbidri

Convener:

Dr. Satyanarayan

Associate Prof. Department of ME

Coordinators:

1. Prof. B G Keshavanth
2. Prof. Sudheer P N

ABOUT THE INSTITUTION

Alva's Education Foundation (AEF) established in 1995 with the vision of our Chairman Dr. M. Mohan Alva has succeeded in making Moodbidri, an Educational hub in the South Canara Region, with more than 25000 students pursuing various courses ranging from primary school to post-graduate courses in social sciences, pure sciences, engineering and management. There are 21 institutions functioning under the Alva's Education Foundation.

Alva's Institute of Engineering and Technology, Moodbidri is a Premier Engineering Institute of Alva's Education Foundation, established in the year 2008. The college is certified to the ISO 9001: 2008 standards. The institute offers top quality education in five under graduate programs in Engineering- Computer Science, Civil, Electronics & Communications, Information Science, and Mechanical Engineering- Three Post Graduate programs- Master of Technology in Thermal Power Engineering, Computer Science & Engineering, VLSI Design Embedded System and Master of Business Administration.



Alva's Institute of Engineering
and Technology, Moodbidri



**5 days Certification
course/Workshop on**

"ANSYS"

From 7th Oct to 11th Oct 2019

Organized by

Department of Mechanical Engineering

Venue: CNC lab, Mech Building, AIET,

ABOUT ME DEPARTMENT

The Department was started in the year 2008. Department of Mechanical Engineering was established in the year 2008 with an intake of 60 and has enhanced to 180 from academic year 2012-13. The Post Graduate course, M.Tech in Thermal Power Engineering was introduced from the academic year 2012-13 with an intake of 18 students. Department is recognized as a research centre by VTU. Department is actively involved in Curricular and extracurricular activities in associations with professional bodies. The main objective of the department is to provide academic excellence, knowledge and nurture talent in the area of Mechanical Engineering. The department has started Bio Diesel research testing centre in the campus to explore in the area of Alternative Fuels.

Department vision is to develop Quality Mechanical Engineers to meet the ever growing and ever changing needs of the economy. The Department is committed to provide high quality technical education at under graduate and post graduate level by means of state of art curriculum with best teaching-learning process.

COURSE CONTENT

Introduction to FEA/FEM & ANSYS

Creating geometry, key points, lines, areas and volumes

Meshing

Analysis of beams and plates

Dynamic analysis

PROGRAM SCHEDULE

7-October - 2019

Inauguration:	09:30 am to 10:00 am
Keynote Address:	10:00 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 1:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 2:	02:00 pm to 05:00 pm

8- October - 2019

Session 3:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 4:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 5:	02:00 pm to 05:00 pm

9- October - 2019

Session 6:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 7:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 8:	02:00 pm to 05:00 pm

10- October - 2019

Session 9:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 10:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 11:	02:00 pm to 05:00 pm

11-October- 2019

Session 12:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 13:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 14:	02:00 pm to 05:00 pm

VISION OF THE DEPARTMENT

Impart Quality Technical Education to excel in Mechanical Engineering to meet the needs of the community

MISSION OF THE DEPARTMENT

1. Empower student knowledge in basic and applied areas of Mechanical Engineering
2. Strengthening collaboration with industries, research organizations and institutes for internship, joint research and consultancy
3. To inculcate entrepreneurial skills and human values in order to cater the needs of society
4. Exposure to industrial practices for managerial skills and professionalism

Attendance List Of Students For ANSYS Certification course

SLN	USN	NAME
1.	4AL17ME411	Prasanna V K
2.	4AL17ME412	Prashanth D H (2nd shft)
3.	4AL17ME413	Praveen Kumar Yadav
4.	4AL17ME414	Rangaraju R
5.	4AL17ME415	Ravi
6.	4AL17ME416	Ravi E Kansogi
7.	4AL17ME417	Shashikanth Janamatti
8.	4AL17ME418	Shravankumar
9.	4AL17ME419	Vinay
10.	4AL17ME420	Vineeth Nayak
11.	4AL14ME062	Nikhil P
12.	4AL14ME074	Rajath Raj U k
13.	4AL14ME110	Aswaghosh B S
14.	4AL14ME738	Vaishnav V R
15.	4AL15ME009	Akshay Babu
16.	4AL15ME012	Akshay p
17.	4AL15ME019	Ashik Santhosh
18.	4AL15ME020	Ashrith J
19.	4AL15ME021	Athul Krishnan
20.	4AL15ME027	Chethan Kumar
21.	4AL15ME030	Darshan K D
22.	4AL15ME039	Jyothi A
23.	4AL15ME043	Kiran Kumar S R
24.	4AL15ME077	Yash Raj shetty
25.	4AL15ME085	Vidyasheesh
26.	4AL15ME098	Likith Poojary
27.	4AL15ME099	Shetty Yash N
28.	4AL15ME721	Pawan s madivalar
29.	4AL15ME727	Saurav Manikantan
30.	4AL15ME730	Nidesh D Shetty
31.	4AL15ME733	Sujith M
32.	4AL16ME431	Somashekar C
33.	4AL15ME086	VEERESH BIRDAR
34.	4AL14ME096	SHRAVIKA K A
35.	4AL15ME102	Sharvan


H. O. D.

Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

36.	4AL16ME092	Vijaylaxmi P S
37.	4AL16ME093	Vikas D S
38.	4AL16ME094	Vishal Sridhaya P
39.	4AL16ME095	Vishnu
40.	4AL16ME096	Vishnuprasad Shetty
41.	4AL14ME111	Pratheek G S
42.	4AL15ME001	Abhinav Anilkumar
43.	4AL15ME101	Yogiraj S A
44.	4AL16ME097	Seemashwori Devi
45.	4AL16ME098	Jyothi S
46.	4AL16ME099	Rakshith C
47.	4AL16ME100	Prasanna Venkatesh
48.	4AL16ME102	Shashank CM
49.	4AL16ME103	Sumith Kumar
50.	4AL16ME104	Vivekanada C N
51.	4AL16ME105	Chandana
52.	4AL16ME711	Kirankumar B Basanagoudar
53.	4AL16ME712	Madesha N
54.	4AL16ME713	Manjunath M G
55.	4AL16ME714	Manoj Honnappa Sannamani
56.	4AL16ME716	Puneeth Kumar C M
57.	4AL16ME717	Rashmitha
58.	4AL16ME718	Raveena
59.	4AL16ME719	Santhosh K B
60.	4AL17ME400	Ashik Rai
61.	4AL17ME401	Bharath N
62.	4AL17ME402	Bindushree G R
63.	4AL17ME403	G N Sthavarmath
64.	4AL17ME404	Janani M
65.	4AL17ME405	Jayanth S
66.	4AL17ME406	Mahesh Kumar BO
67.	4AL17ME407	MohanKirshna M G
68.	4AL17ME408	Mohsin Fayad khan
69.	4AL17ME409	Muttanna Bhangi
70.	4AL17ME410	Nayak Rachit Jagannath

[Signature]
H.O.D.
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, Moodbidri - 574 225



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D K - 574225

Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Attendance List Of Students For ANSYS Certification course

SLN	USN	NAME	7-10-19		8-10-19		9-10-19		10-10-19		11-10-19	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	4AL17ME411	Prasanna V K	P	P	P	P	P	P	P	P	P	P
2.	4AL17ME412	Prashanth D H (2nd shift)	P	P	P	P	P	P	P	P	P	P
3.	4AL17ME413	Praveen Kumar Yadav	P	P	P	P	P	P	P	P	P	P
4.	4AL17ME414	Rangaraju R	P	P	P	P	P	P	P	P	P	P
5.	4AL17ME415	Ravi	P	P	P	P	P	P	P	P	P	P
6.	4AL17ME416	Ravi E Kansogi	P	P	P	P	P	P	P	P	P	P
7.	4AL17ME417	Shashikanth Janamatti	P	P	P	P	P	P	P	P	P	P
8.	4AL17ME418	Shravankumar	P	P	P	P	P	P	P	P	P	P
9.	4AL17ME419	Vinay	P	P	P	P	P	P	P	P	P	P
10.	4AL17ME420	Vineeth Nayak	P	P	P	P	P	P	P	P	P	P
11.	4AL14ME062	Nikhil P	P	P	P	P	P	P	P	P	P	P
12.	4AL14ME074	Rajath Raj U k	P	P	P	P	P	P	P	P	P	P
13.	4AL14ME110	Aswaghosh B S	P	P	P	P	P	P	P	P	P	P
14.	4AL14ME738	Vaishnav V R	P	P	P	P	P	P	P	P	P	P
15.	4AL15ME009	Akshay Babu	P	P	P	P	P	P	P	P	P	P
16.	4AL15ME012	Akshay p	P	P	P	P	P	P	P	P	P	P
17.	4AL15ME019	Ashik Santhosh	P	P	P	P	P	P	P	P	P	P
18.	4AL15ME020	Ashrith J	P	P	P	P	P	P	P	P	P	P
19.	4AL15ME021	Athul Krishnan	P	P	P	P	P	P	P	P	P	P
20.	4AL15ME027	Chethan Kumar	P	P	P	P	P	P	P	P	P	P
21.	4AL15ME030	Darshan K D	P	P	P	P	P	P	P	P	P	P
22.	4AL15ME039	Jyothi A	P	P	P	P	P	P	P	P	P	P
23.	4AL15ME043	Kiran Kumar S R	P	P	P	P	P	P	P	P	P	P
24.	4AL15ME077	Yash Raj shetty	P	P	P	P	P	P	P	P	P	P
25.	4AL15ME085	Vidyasheesh	P	P	P	P	P	P	P	P	P	P
26.	4AL15ME098	Likith Poojary	P	P	P	P	P	P	P	P	P	P
27.	4AL15ME099	Shetty Yash N	P	P	P	P	P	P	P	P	P	P
28.	4AL15ME721	Pawan s madivalar	P	P	P	P	P	P	P	P	P	P
29.	4AL15ME727	Saurav Manikantan	P	P	P	P	P	P	P	P	P	P
30.	4AL15ME730	Nidesh D Shetty	P	P	P	P	P	P	P	P	P	P
31.	4AL15ME733	Sujith M	P	P	P	P	P	P	P	P	P	P
32.	4AL16ME431	Somashekar C	P	P	P	P	P	P	P	P	P	P
33.	4AL15ME086	VEERESH BIRDAR	P	P	P	P	P	P	P	P	P	P
34.	4AL14ME096	SHRAVIKA K A	P	P	P	P	P	P	P	P	P	P
35.	4AL15ME102	Sharvan	P	P	P	P	P	P	P	P	P	P

Signature

Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar MOODBIDRI - 574 225



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225

Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Attendance List Of Students For ANSYS Certification course

SLN	USN	NAME	7-10-19		8-10-19		9-10-19		10-10-19		11-10-19	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	4AL17ME411	Prasanna V K	P	P	P	P	P	P	P	P	A	A
2.	4AL17ME412	Prashanth D H (2nd shift)	P	P	P	P	P	P	P	P	P	P
3.	4AL17ME413	Praveen Kumar Yadav	P	P	P	P	P	P	P	P	P	P
4.	4AL17ME414	Rangaraju R	P	P	P	P	A	P	P	P	P	P
5.	4AL17ME415	Ravi	P	P	P	P	P	P	P	P	P	P
6.	4AL17ME416	Ravi E Kansogi	A	P	A	P	P	P	P	P	P	P
7.	4AL17ME417	Shashikanth Janamatti	P	P	P	P	P	P	P	P	P	P
8.	4AL17ME418	Shravankumar	P	P	P	P	P	P	P	P	P	P
9.	4AL17ME419	Vinay	P	P	P	P	P	P	P	P	P	P
10.	4AL17ME420	Vineeth Nayak	P	P	P	P	P	P	P	P	P	P
11.	4AL14ME062	Nikhil P	P	P	P	P	P	P	P	P	P	P
12.	4AL14ME074	Rajath Raj U k	A	A	P	P	P	P	P	P	P	P
13.	4AL14ME110	Aswaghosh B S	P	P	P	P	P	P	P	P	P	P
14.	4AL14ME738	Vaishnav V R	P	P	P	P	P	P	P	P	P	P
15.	4AL15ME009	Akshay Babu	P	P	P	P	A	A	P	P	P	P
16.	4AL15ME012	Akshay p	P	P	P	P	P	P	P	P	P	P
17.	4AL15ME019	Ashik Santhosh	P	P	P	P	P	P	P	P	P	P
18.	4AL15ME020	Ashrith J	P	P	P	P	P	P	P	P	P	P
19.	4AL15ME021	Athul Krishnan	P	P	P	P	P	P	P	P	P	P
20.	4AL15ME027	Chethan Kumar	P	P	A	A	P	P	A	A	P	P
21.	4AL15ME030	Darshan K D	P	P	P	P	P	P	P	P	P	P
22.	4AL15ME039	Jyothi A	P	P	P	P	P	P	P	P	P	P
23.	4AL15ME043	Kiran Kumar S R	P	P	P	P	P	P	P	P	P	P
24.	4AL15ME077	Yash Raj shetty	P	P	P	P	P	P	P	P	P	P
25.	4AL15ME085	Vidyasheesh	P	P	P	P	P	P	P	P	P	P
26.	4AL15ME098	Likith Poojary	P	P	A	A	P	P	P	P	P	P
27.	4AL15ME099	Shetty Yash N	P	P	P	P	P	P	P	P	P	P
28.	4AL15ME721	Pawan s madivalar	P	P	P	P	P	P	P	P	P	P
29.	4AL15ME727	Saurav Manikantan	P	P	P	P	P	P	P	P	P	P
30.	4AL15ME730	Nidesh D Shetty	P	P	P	P	P	P	P	P	A	A
31.	4AL15ME733	Sujith M	P	P	P	P	P	P	P	P	P	P
32.	4AL16ME431	Somashekar C	P	P	P	P	P	P	P	P	P	P
33.	4AL15ME086	VEERESH BIRDAR	P	P	P	P	A	A	P	P	P	P
34.	4AL14ME096	SHRAVIKA K A	A	A	A	A	P	P	P	P	P	P
35.	4AL15ME102	Sharvan	A	A	A	A	A	A	A	A	A	A

Shomef

Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar MOODBIDRI - 574 225

Name: Jyoti S
USN → HAL16ME098



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF COMPUTER MECHANICAL ENGINEERING

Quiz on ANSYS Certification course

1. In a solid of revolution, if the geometry, support conditions, loads, and material properties are all symmetric about the axis and are independent of θ , then the problem can be treated as a ____

- a) two-dimensional one ✓
- b) one-dimensional one
- c) three-dimensional one
- d) plane strain

2. In a static structural type Boundary Value Problem, at any fixed support, How many non-zero Degrees Of Freedom exist?

- a) 0 ✓
- b) 1
- c) 2
- d) 3

3. In a static structural type Boundary Value Problem, at any roller support, How many non-zero Degrees Of Freedom exist?

- a) 0
- b) 1
- c) 2 ✓
- d) 3

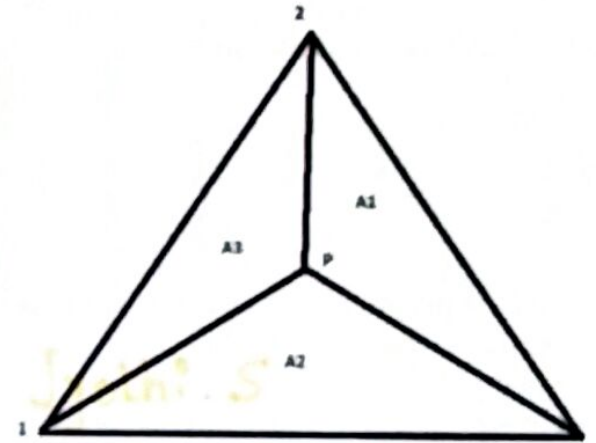
4. In a static structural type Boundary Value Problem, at any hinged support, How many non-zero Degrees Of Freedom exist?

- a) 0
- b) 1 ✓
- c) 2
- d) 3

5. In a 3D axisymmetric solid, because of symmetry about the longitudinal axis, the stresses do not vary along ____ coordinate.

- a) x
- b) y
- c) z
- d) θ ✓

6. For $A1=5$, $A2=10$, $A3=5$, what is the value of the shape function at node 1 of the element shown?



- a) 0.15
- b) 0.5 ✓
- c) 0.35
- d) 0.25

7. The finite element method formulation of the problem results in a system of

- a) Algebraic Equations ✓
- b) Logical Equations
- c) Arithmetic Equations
- d) Flow equations

8. FEM gives accurate representation of

- a) Real Geometry
- b) Complex geometry ✓
- c) Real and complex geometry
- d) Constant geometry

9. Finite element method is also called

- a) infinite element analysis
- b) frequency analysis



Quiz on ANSYS Certification course

- c) finite element analysis ✓
d) partial element analysis

10. Numerical algorithms are based on

- a) FEM and FDTD ✓
b) FEM and IFEM
c) TD and FD
d) FEM and FD

11. To solve the FEM problem, it subdivides a large problem into smaller, simpler parts that are called

- a) finite Elements ✓
b) infinite elements
c) dynamic elements
d) static elements

12. Displacement is a linear function, strain and stress are constant within an element is called a

- a) linear triangle
b) axisymmetric elements ✓
c) constant strain triangle element
d) unsymmetrical element

13. this triangular element, _____ per node chooses linear displacement functions for u and v and hence gives constant strain terms over the entire element

- a) 4 nodes and 6 DOF
b) 3 nodes and 2 DOF
c) 4 nodes and 6 DOF ✓
d) 2 nodes and 3 DOF

14. These are the elements having no internal nodes

- a) lagrange elements

- b) serendipity elements
c) symmetric ✓
d) unsymmetrical element

15. The standard method of inverting a matrix (the stiffness matrix) to yield the unknown nodal values of the field variable

- a) CRAMER'S method
b) Gaussian Elimination method ✓
c) Direct method
d) Penalty method

$$\frac{11}{15}$$

Training Evaluation Form

Date: 07 Oct 2019 to 11 Oct 2019

Title: ANsys

Trainer: Prasad V.B., Kishan C.H., Praveen K.C.

Instructions: Please indicate your level of agreement with the statements listed below in #1-11.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The objectives of the training were clearly defined.	☐	☒	☐	☐	☐
2. Participation and interaction were encouraged.	☐	☒	☐	☐	☐
3. The topics covered were relevant to me.	☒	☐	☐	☐	☐
4. The content was organized and easy to follow.	☐	☒	☐	☐	☐
5. The materials distributed were helpful.	☐	☐	☒	☐	☐
6. This training experience will be useful in my work.	☐	☒	☐	☐	☐
7. The trainer was knowledgeable about the training topics.	☐	☒	☐	☐	☐
8. The trainer was well prepared.	☐	☒	☐	☐	☐
9. The training objectives were met.	☒	☐	☐	☐	☐
10. The time allotted for the training was sufficient.	☐	☒	☐	☐	☐
11. The meeting room and facilities were adequate and comfortable.	☐	☒	☐	☐	☐

12. What did you like most about this training?

The information given by the trainer is good

13. What aspects of the training could be improved?

Hands on training

14. How do you hope to change your practice as a result of this training?

15. What additional trainings would you like to have in the future?

more number of days should be conducted with Hands on training

16. Please share other comments or expand on previous responses here:

Training was good we learnt lot of information about CNC

Thank you for your feedback!

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY MOODBIDRI



A Unit of Alva's Education Foundation®
(Affiliated to VTU, Belagavi and Approved by A.I.C.T.E., New Delhi)
Shobhavana Campus, Mijar, Moodbidri DK Karnataka-574225

DEPARTMENT MECHANICAL ENGINEERING

Certificate

*This is to certify that Mr./Ms....Jyoth..S.....bearing the
USN ...NAL16ME098... from ...Mechanical Department has attended
the Students Workshop Program on "ANSYS" from 7th October
2019 to 11th October 2019.*

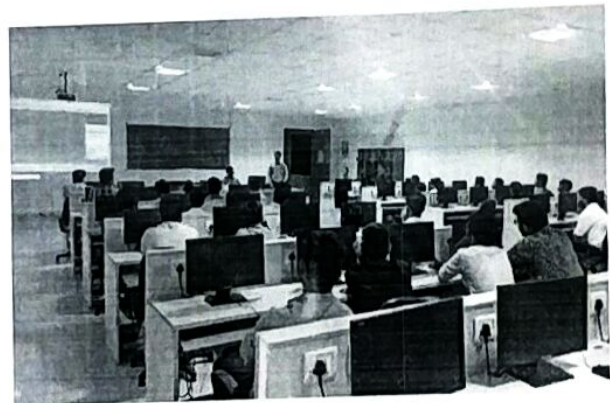
Mr. Hemanth S
Coordinator

Head of the Department
Mechanical Engineering

Dr. Peter Fernandes
Principal
AIET Moodbidri

REPORT ON ANSYS

Department of Mechanical Engineering, AIET, Mijar organized a **5 days Certification Course/Workshop** on "ANSYS" s on **7th October 2019 to 11th October 2019**. The workshop/certification course was inaugurated by, Dr. Satyanarayan, from Dept. ME and all staff members and student volunteers were also present during the inauguration function and also total **70 participants** had been attended this certification course.



For candidates especially for Ansys Mechanical finite element analysis software is used to simulate computer models of structures, electronics, or machine components for analyzing strength, toughness, elasticity, temperature distribution, electromagnetism, fluid flow, and other attributes. Ansys is used to determine how a product will function with different specifications, without building test products or conducting crash tests. For example, Ansys software may simulate how a bridge will hold up after years of traffic, how to best process salmon in a cannery to reduce waste, or how to design a slide that uses less material without sacrificing safety. Student has learnt how to analyze, mesh, creating, editing and analyzing the results.



Coordinator



H.O.D.
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225