

Shanti Education Society's

**A. G. Patil Institute of Technology,  
Solapur.**

Affiliated to DBATU, Lonere/Solapur University, Approved by AICTE &  
Recognized by Govt of Maharashtra

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(NAAC Accredited – “B+” Grade)



**CAMPUS RECRUITMENT TRAINING ON  
ANSYS SOFTWARE FOR THIRD & FINAL YEAR  
STUDENTS**

**FROM 22/02/2020 TO 27/02/2020**

# ANSYS Workshop

## Schedule and Syllabus

Sr. No	Time	Title
22/02/2020	10:00 to 05:00	Introduction to CAE General working of FEA Stiffness matrix Boundary conditions Elements and Element Shapes General procedure to conduct FEA FEA software Key Assumptions in FEA Types of Engineering Analysis Classification of materials
23/02/2020	10:00 to 05:00	System requirements Starting ANSYS Workbench 14.0 ANSYS Workbench 14.0 GUI Working on a Project Units in ANSYS Workbench ANSYS Workbench Database and File format Changing the unit system Components of the system
24/02/2020	10:00 to 05:00	Introduction to Modeling Introduction to DesignModeler Window Illustration1: I-section Illustration 2: Spring Plate Illustration 3: Clamp
25/02/2020	10:00 to 05:00	Overview Introduction, Extrusion, Revolution, Sweep, Sketching, Introduction, Adding a hole, Adding a round, Adding a chamfer, Patterns, Assembly, Alternate solid modeler
26/02/2020	10:00 to 05:00	Introduction Meshing of Plate with Holes Generating the mesh, optimize the model and generating the local mesh (illustration through three examples) Assembly Meshing
27/02/2020	10:00 to 05:00	Introduction to Static Structural Analysis Pre-processing, Solution, Post-processing Static Structural Analysis of: Cantilever Beam Plate with a central circular holes and square slot Pressure vessel, Bracket, Clevis assembly

## Summary:

ANSYS is an analysis and simulation software of designs of a wide range of domains - from mechanical to electrical to fluid mechanics. This course introduces the concept of analysis like structural, and thermal analysis - and simulation of designs. The course covers steps involved in various stages of analysis and simulation - including pre-processor, solution, and post-processor stages. The course relies on real-time and hands-on sessions for effective knowledge transfer.

Upon the completion of this course, students will have a solid understanding of analysis and simulation of designs. Key topics covered include:

- Generating Mesh
- Optimizing Models to Refine Mesh
- Surface and Line Models
- Static Structural Analysis
- Modal Analysis

The workshop was instrumental for the students of mechanical engineering department. The experience of the resource person was vital for demonstration of the ANSYS software.

Objective was to familiarize students with ANSYS software's such that they get trained in it and get a good job after their graduation.

**A.G.Patil Institute of Technology, Solapur**  
 6 Day's Fastrack Technical Training on "Ansys Software" (Campus Recruitment Training)

**B.E.-MECH-ENGINEERING (2019-20)**

Training & Placement Cell

R. N.	Students Name	22.02.2020		23.02.2020		24.02.2020		25.02.2020		26.02.2020		27.02.2020	
		M	E	M	E	M	E	M	E	M	E	M	E
1	ARBAZ AHMED ANIS AHMAD MOMIN	AB	AB	AB	AB	AB	AB	AB	AB				
2	BAGWAN SUFIYAN MANZOOR	AB				AB	AB	AB					
3	BANNE BHARAT GURUNATH	AB											
4	BIRAJDAR CHANVIR RAJKUMAR	AB	AB	AB	AB	AB	AB	AB	AB				
5	DHANGE HARISH LAXMAN	AB	AB	AB	AB	AB	AB	AB	AB				
6	DONGRI ABRAR FAIZ AHMAD	AB	AB	AB	AB	AB	AB	AB	AB				
7	EDAKE AKASH RAVINDRA	AB	AB	AB	AB	AB	AB	AB	AB				
8	FARAS MUBARAK SALEEM	AB	AB	AB	AB	AB	AB	AB	AB				
9	GOTSURVE SHUBHAM RAJU	AB	AB	AB	AB	AB	AB	AB	AB				
10	HAGAWANE GANESH SHIVANAND	AB	AB	AB	AB	AB	AB	AB	AB				
11	HULYALKAR SOURABH SUBHASH	AB	AB	AB	AB	AB	AB	AB	AB				
12	JADHAV VAIBHAV VIDYASAGAR	AB	AB	AB	AB	AB	AB	AB	AB				
13	KALE REVANSIDDH PARSAPPA	AB	AB	AB	AB	AB	AB	AB	AB				
14	KASHETTI SWAMINATH R	AB	AB	AB	AB	AB	AB	AB	AB				
15	KULKARNI AKASH VAIBHAV	AB	AB	AB	AB	AB	AB	AB	AB				
16	KULKARNI HRISHIKESH D	AB	AB	AB	AB	AB	AB	AB	AB				
17	PATIL ABHIJIT JAGADISH	AB	AB	AB	AB	AB	AB	AB	AB				
18	PATIL PRASHANT BABURAO	AB	AB	AB	AB	AB	AB	AB	AB				
19	PISE SUMIT SUNIL	AB	AB	AB	AB	AB	AB	AB	AB				
20	SHAIKH AMAN BANDENAVAJ	AB	AB	AB	AB	AB	AB	AB	AB				
21	SHAIKH AMIR BANDENAVAJ	AB	AB	AB	AB	AB	AB	AB	AB				
22	SHAIKH MAULALI NISAR	AB	AB	AB	AB	AB	AB	AB	AB				
23	SHAIKH PARVEJ JAKIR	AB	AB	AB	AB	AB	AB	AB	AB				
24	SHIRASIKAR VIJAY DILIP	AB	AB	AB	AB	AB	AB	AB	AB				
25	SONAWANE SAKET AVINASH	AB	AB	AB	AB	AB	AB	AB	AB				
26	SURYAWANSHI NIRAJ SUDHIR	AB	AB	AB	AB	AB	AB	AB	AB				
27	SWAMI RAGHAVENDRA IRAYYA	AB	AB	AB	AB	AB	AB	AB	AB				
28	TELSANG BALKRUSHNA P	AB	AB	AB	AB	AB	AB	AB	AB				
29	VACCHE NAGESH SURYAKANT	AB	AB	AB	AB	AB	AB	AB	AB				
30	WAGHMODE ANJALI DADARAO	AB	AB	AB	AB	AB	AB	AB	AB				
31	MUNDEWADI MUSHAF ILIYAS	AB	AB	AB	AB	AB	AB	AB	AB				
32	SONAWANE PUNIT AVINASH	AB	AB	AB	AB	AB	AB	AB	AB				
33	JAMADAR SAHIL RASOOL	AB	AB	AB	AB	AB	AB	AB	AB				
34	PATTANSHETTI S. R.	AB	AB	AB	AB	AB	AB	AB	AB				
35	MAHIMKAR O. A.	AB	AB	AB	AB	AB	AB	AB	AB				
36	MANE ABHISHEK BALASAHEB	AB	AB	AB	AB	AB	AB	AB	AB				
37	BORGAONKAR AKSHAY SADANAND	AB	AB	AB	AB	AB	AB	AB	AB				
38	BHANDARE PRAMOD	AB	AB	AB	AB	AB	AB	AB	AB				
39	VHANMORE NAGESH	AB	AB	AB	AB	AB	AB	AB	AB				
40	BACCHABHAI MAAZ AB.RAJHEEM	AB	AB	AB	AB	AB	AB	AB	AB				
41	MAHALINGADE VAIBHAV DHANAJI	AB	AB	AB	AB	AB	AB	AB	AB				
42	CHOUGULE RAHUL CHANGDEV	AB	AB	AB	AB	AB	AB	AB	AB				
43	KAMBLE SUDRASHAN TANAJI	AB	AB	AB	AB	AB	AB	AB	AB				
44	KANMUS RAVI RAJKUMAR	AB	AB	AB	AB	AB	AB	AB	AB				
45	GAIKWAD KEDAR	AB	AB	AB	AB	AB	AB	AB	AB				

# ANSYS Workshop

## Final Test for assessment of participants

Total Questions: 15

Total Marks: 15

Duration: 30 minutes

All questions are compulsory/Tick the appropriate answer with blue ink pen only.

Name of Participant: *Hrishikesh Kulkarni*

1. No. of degrees of freedom for 3D Solid Element (both Hex and Tet).....

A. 3

B. 2

C. 6

D. 8

2. Large deflection option when switched ON accounts for which of the following:

A. Stiffness variation

B. Large rotations

C. Large strains

D. All of the above

3. ANSYS archive files are saved in.....format.

A. .wbpj

B. .scdoc

C. .wbpz

D. .cmdp

4. Which numerical method is used by ANSYS to converge a nonlinear solution?

A. Euler Method

B. Bisection Method

C. Taylor's Method

D. Newton-Raphson Method

5. Stresses and strains calculated on an element at.....

A. Nodes

B. Integration points

C. Element center

D. All of the above

6. Which of these loads are NOT supported in Harmonic Analysis?

A. Gravity Load

B. Pressure

C. Moment

D. All of the above

7. How many degrees of freedom exist for a cylindrical joint?

A. 2

B. 3

- C. 4
- D. 6

8. What are the mandatory material properties needed for Static Structural Analysis?

- A. Young's Modulus and Yield strength
- B. Young's Modulus and Poisson's ratio
- C. Yield Strength and Poisson's ratio
- D. Ultimate strength and Yield Strength

9. In ANSYS meshing, what does the pinch option in the local mesh control do?

- A. Generate prism layer near free surfaces
- B. Remove intricate & small features.
- C. Create a structured mesh on a face
- D. Move nodes around a local region

10. Possible to copy (Ctrl +C) and paste (ctrl + V) any geometrical entities such as curves, faces, and bodies in Space Claim.

- A. True
- B. False

11. Both the Pull Tool and Move Tool can be used to extrude a face.

- A. True
- B. False

12. A body suppressed in Space Claim will be imported into Mechanical.

- A. True
- B. False

13. Acceleration can be applied to a single individual part of an assembly.

- A. True
- B. False

14. Results from Random Vibration Analysis are frequency dependent.

- A. True
- B. False

15. FEM gives an exact solution to problems.

- A. True
- B. False



# Certificate of Participation

THE FOLLOWING AWARD IS GIVEN TO

for attending and actively participating in the  
workshop on ANSYS, organized by A. G. Patil  
Institute of Technology, Solapur on 20th Feb  
2020 to 27th Feb 2020.



A handwritten signature in dark ink, appearing to be 'S.P.', is written over a faint, illegible printed name.

Head of Department

A handwritten signature in dark ink, appearing to be 'A.G. Patil', is written over a faint, illegible printed name.

President



# Certificate of Participation

THE FOLLOWING AWARD IS GIVEN TO

SUMIT SUNIL PISE

for attending and actively participating in the  
workshop on ANSYS, organized by A. G. Patil  
Institute of Technology, Solapur on 22nd Feb  
2020 to 27th Feb 2020.



Head of Department

Principal