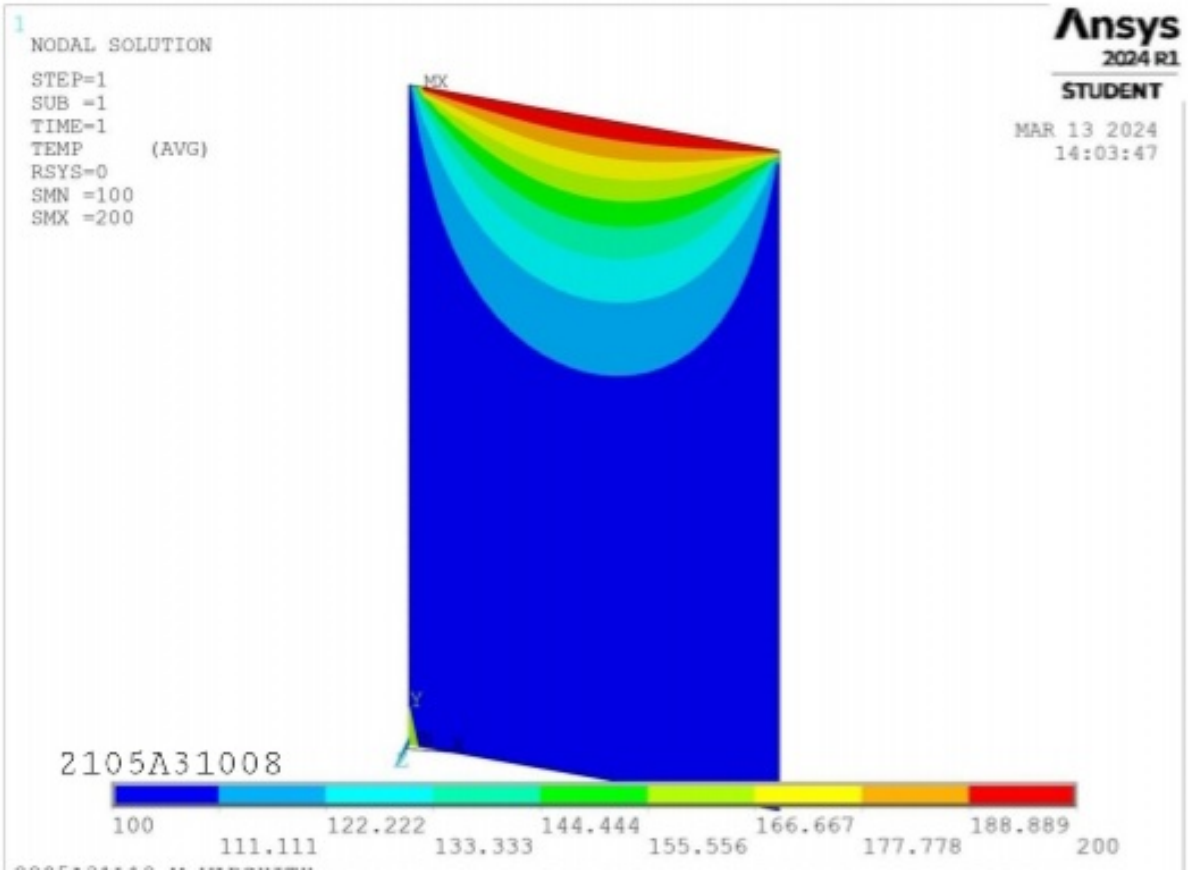
COMPUTATIONAL STRUCTURAL AND THERMAL ANLYSIS LAB

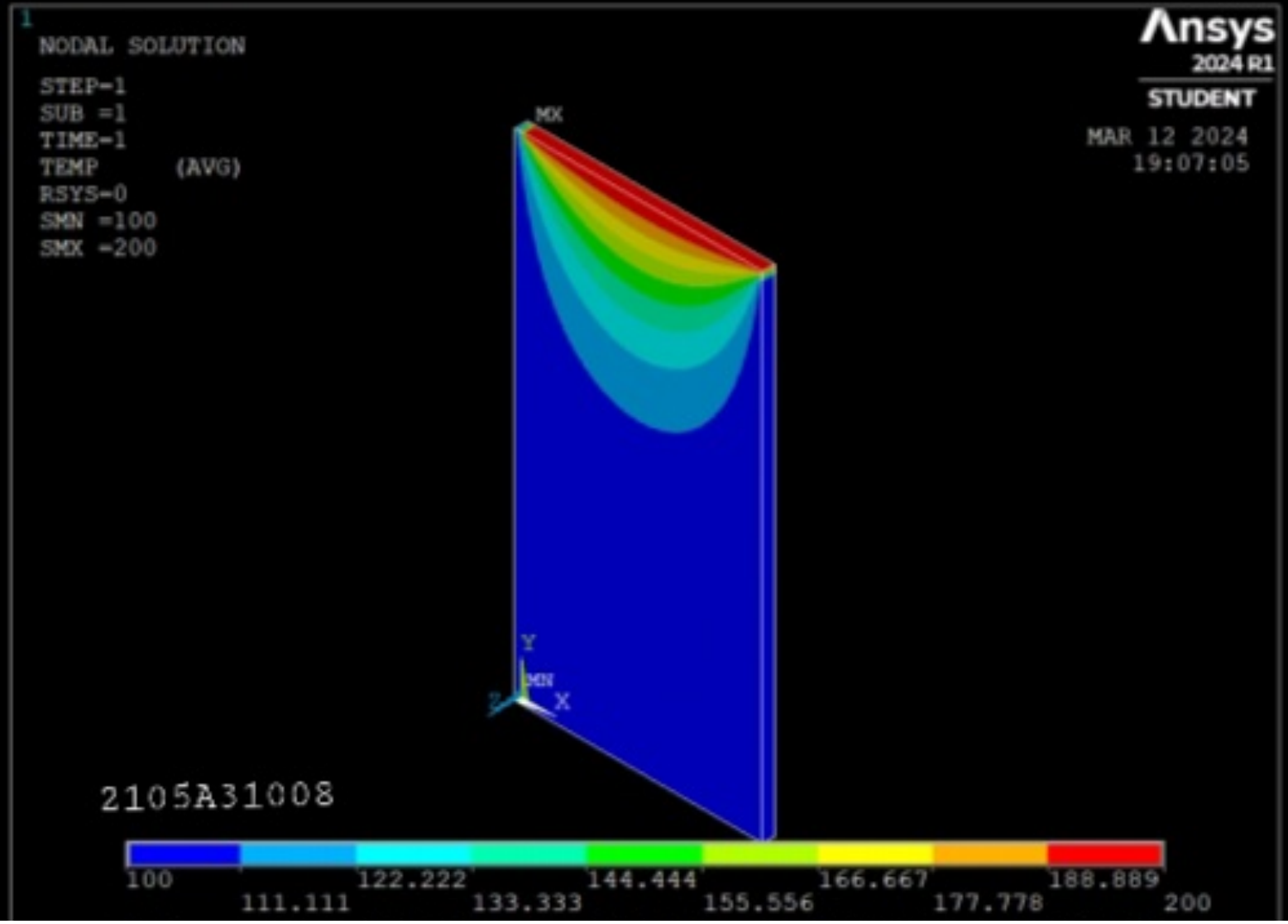
"ANSYS APDL MODELS"

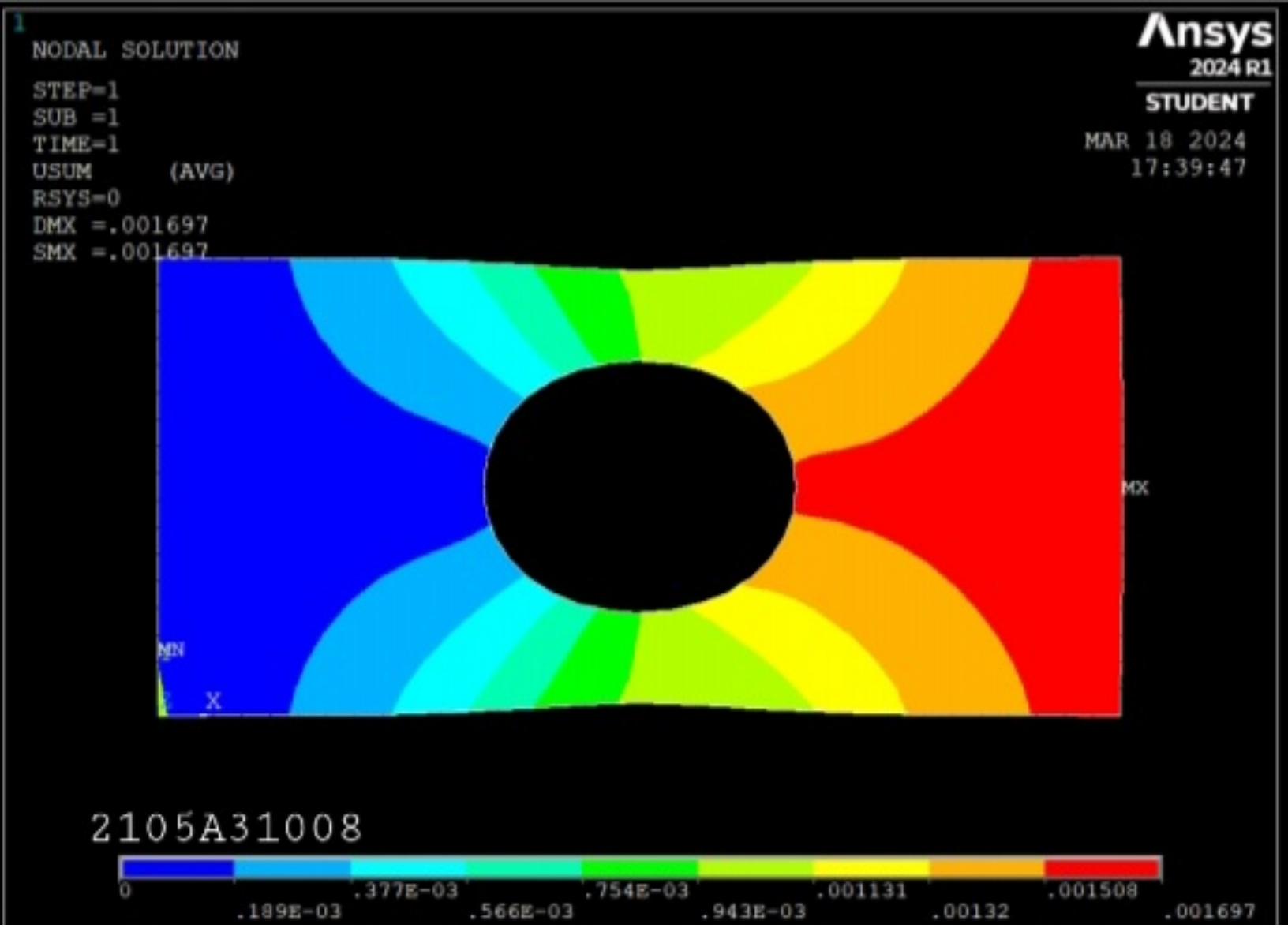
2105A31008
MANOJ THOKALA

EXPERIMENT-1 : THERMAL ANALYSIS AND HEAT TRANSFER ANALYSIS OF PLATE

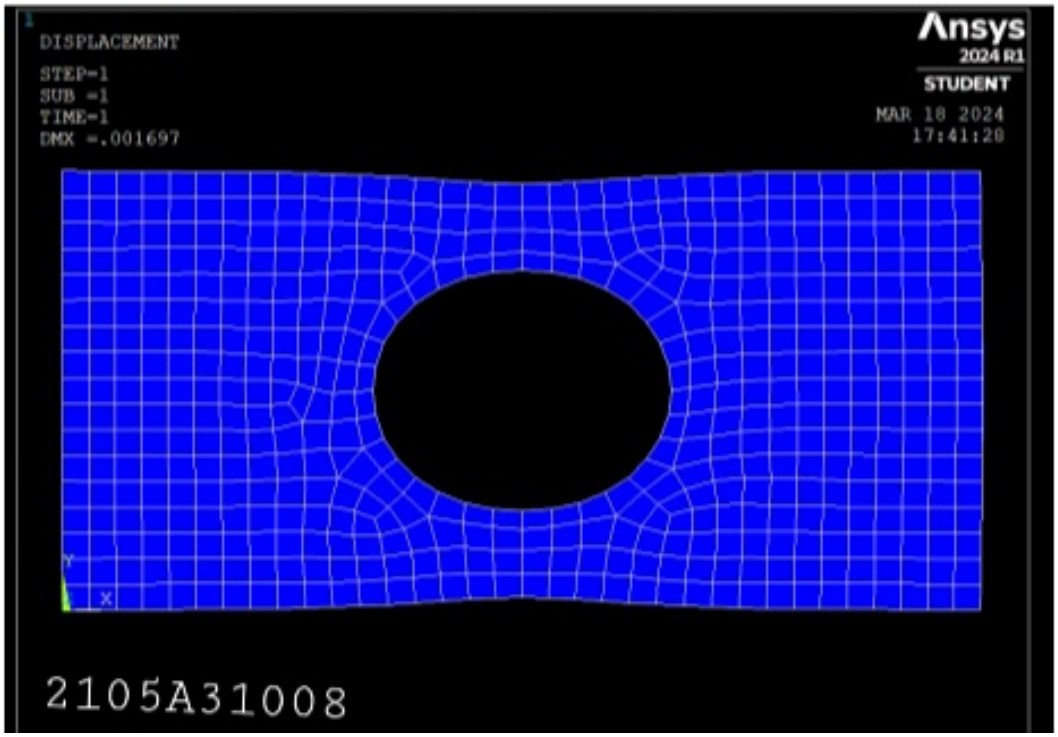
NODAL SOLUTION



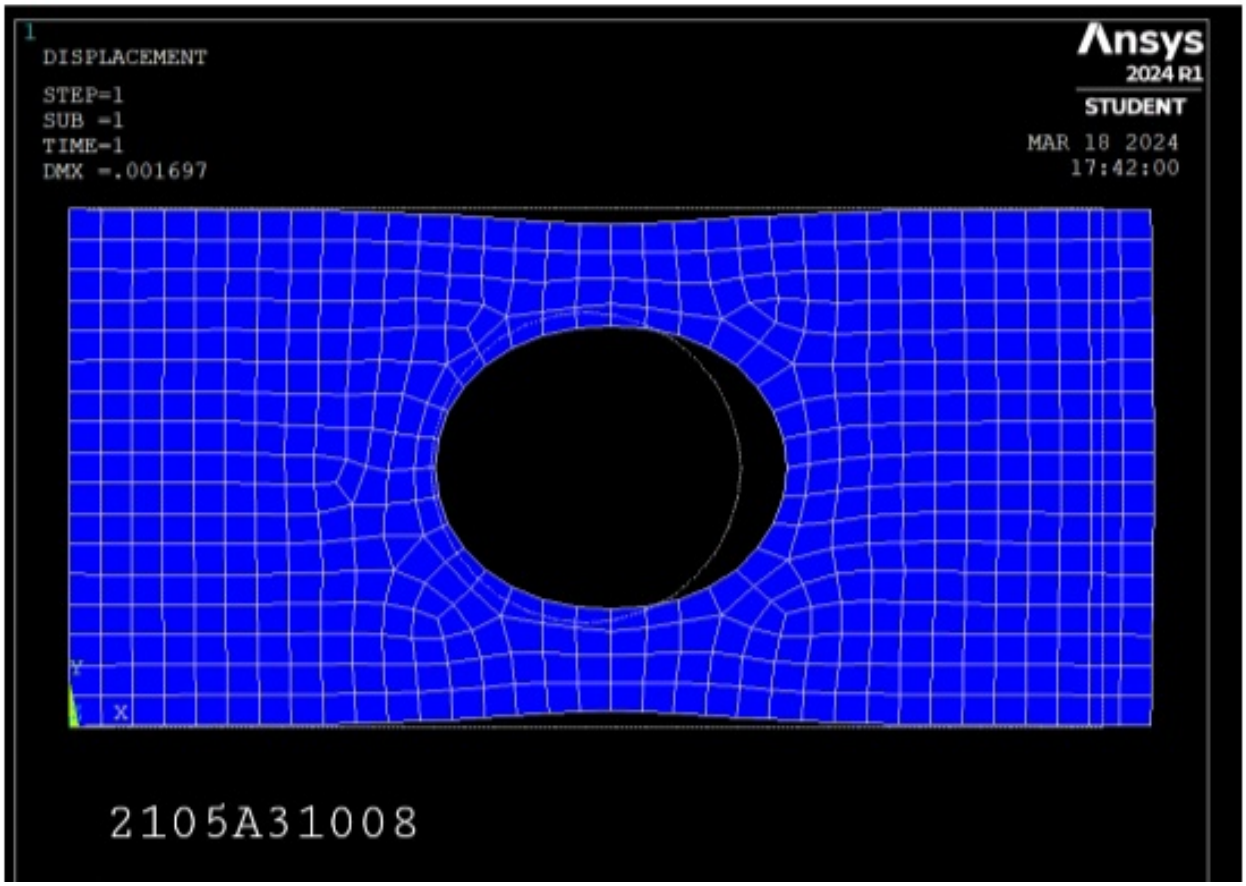

1
NODAL SOLUTION
STEP=1
SUB =1
TIME=1
TEMP (AVG)
RSYS=0
SMN =100
SMX =200
Ansys
2024 R1
STUDENT
MAR 12 2024
19:07:05
MX
MN
Y
Z
X
2105A31008
100
111.111
122.222
133.333
144.444
155.556
166.667
177.778
188.889
200


1
NODAL SOLUTION
STEP=1
SUB =1
TIME=1
USUM (AVG)
RSYS=0
DMX =.001697
SMX =.001697
Ansys
2024 R1
STUDENT
MAR 18 2024
17:39:47
MX
MN
Y
X
2105A31008
0
.189E-03
.377E-03
.566E-03
.754E-03
.943E-03
.001131
.00132
.001508
.001697

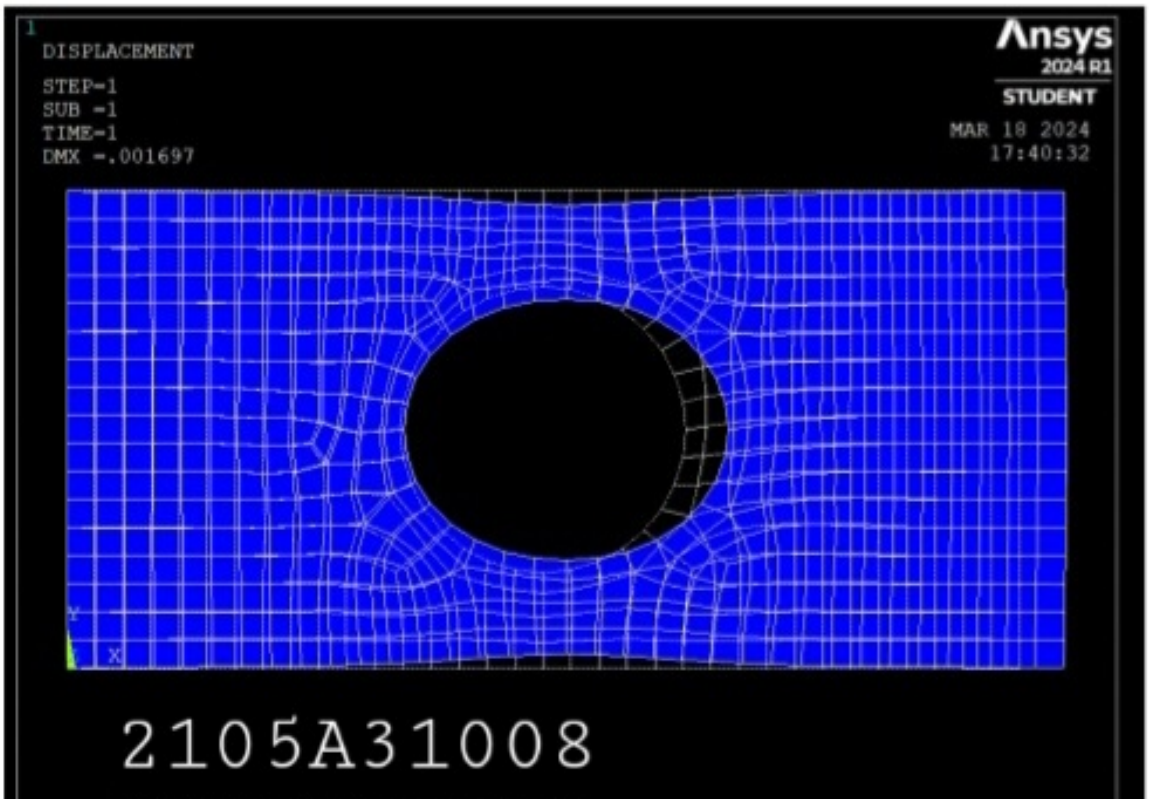
DEFORMED SHAPE :



DEFORMED+UNDEFORMED EDGE :

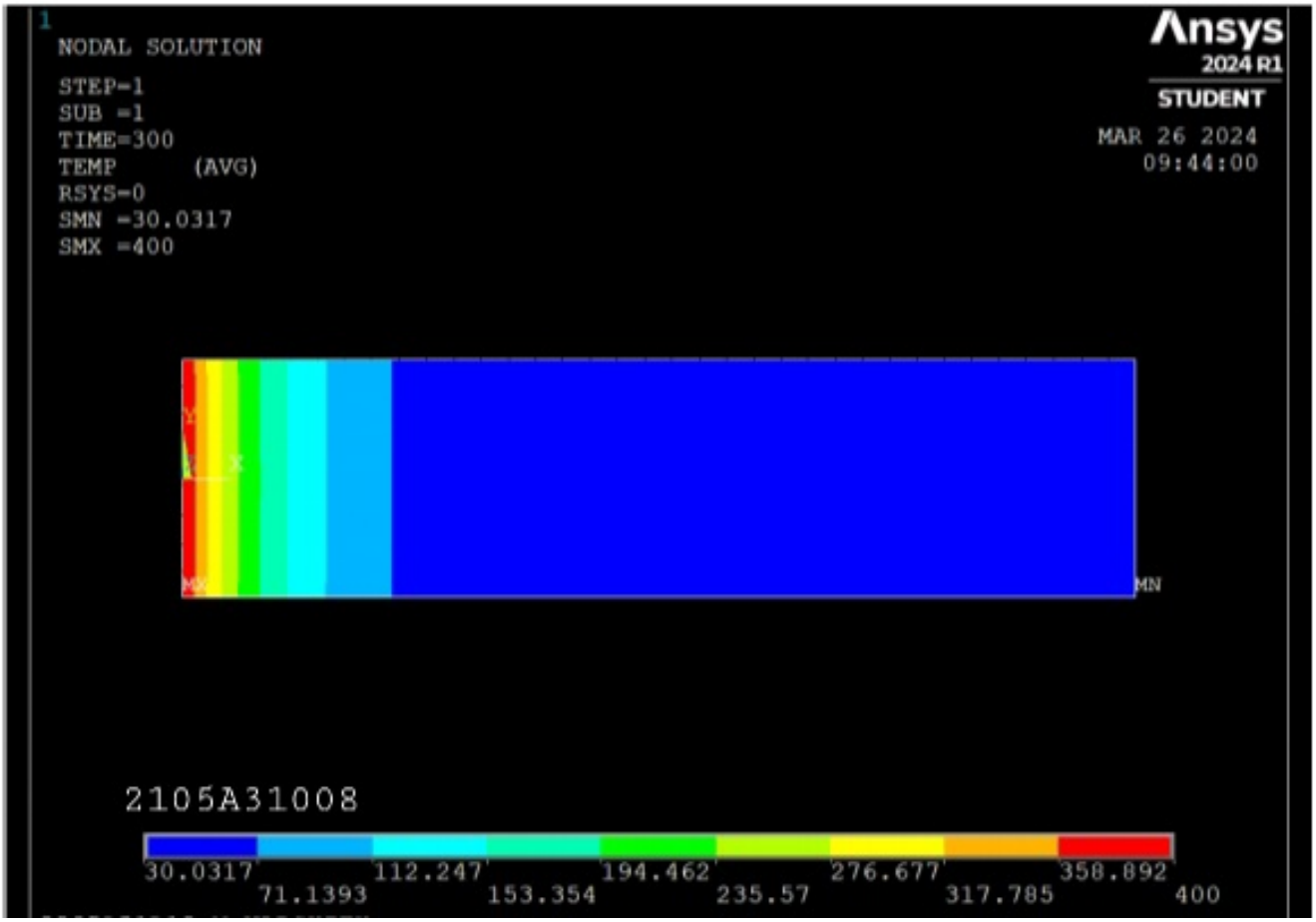


DEFORMED+UNDEFORMED SHAPE :

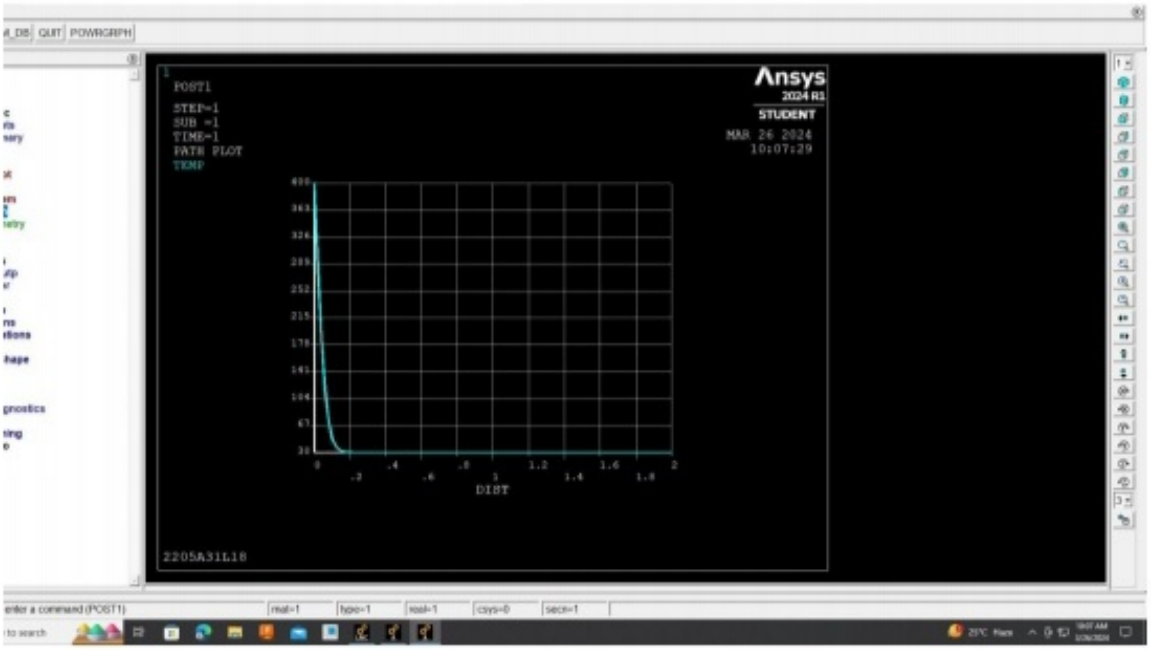


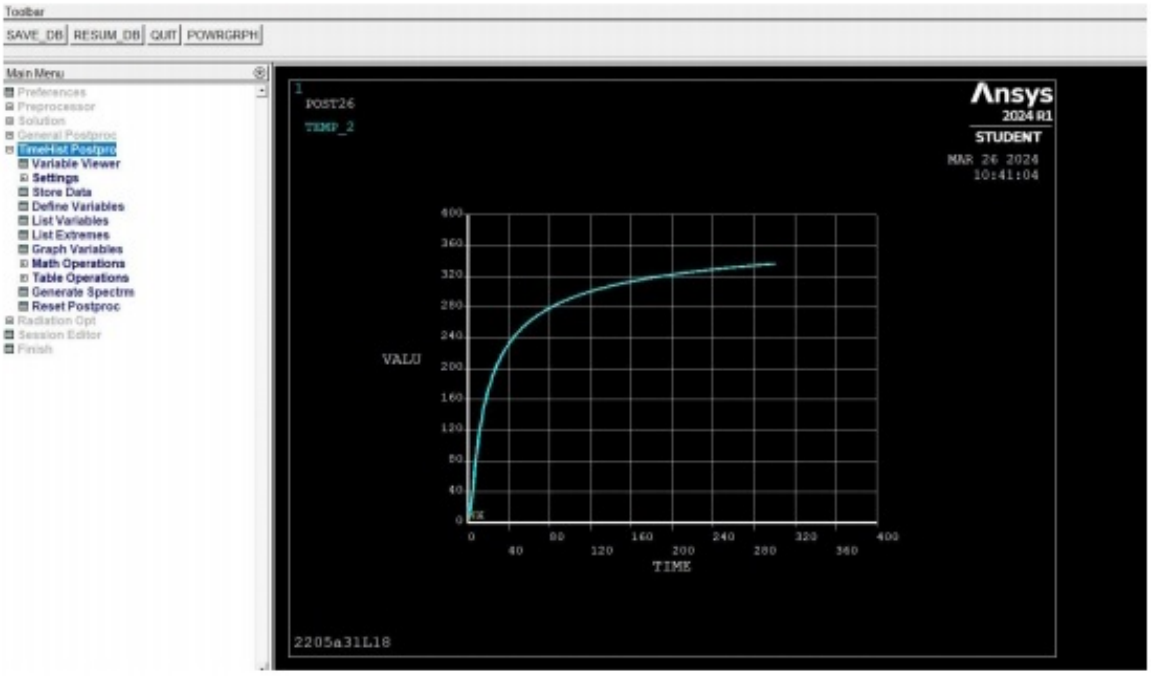
EXPERMENT-3 : THERMAL ANALYSIS OF A FIN

NODAL SOLUTION



TEMPERATURE GRAPHS :

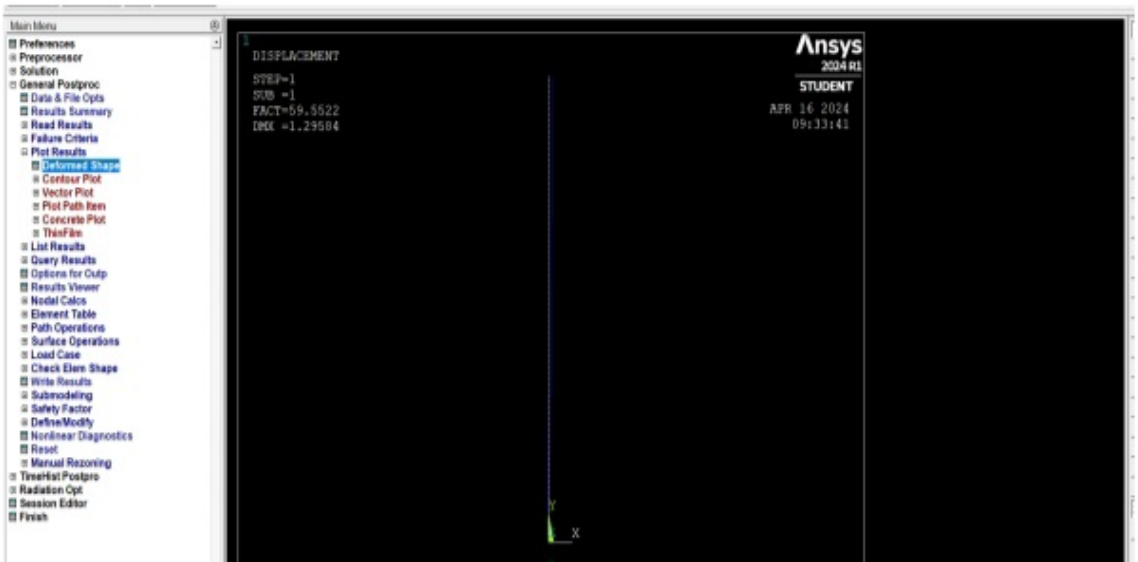




EXPERIMENT-4 : BUCKLING ANALYSIS

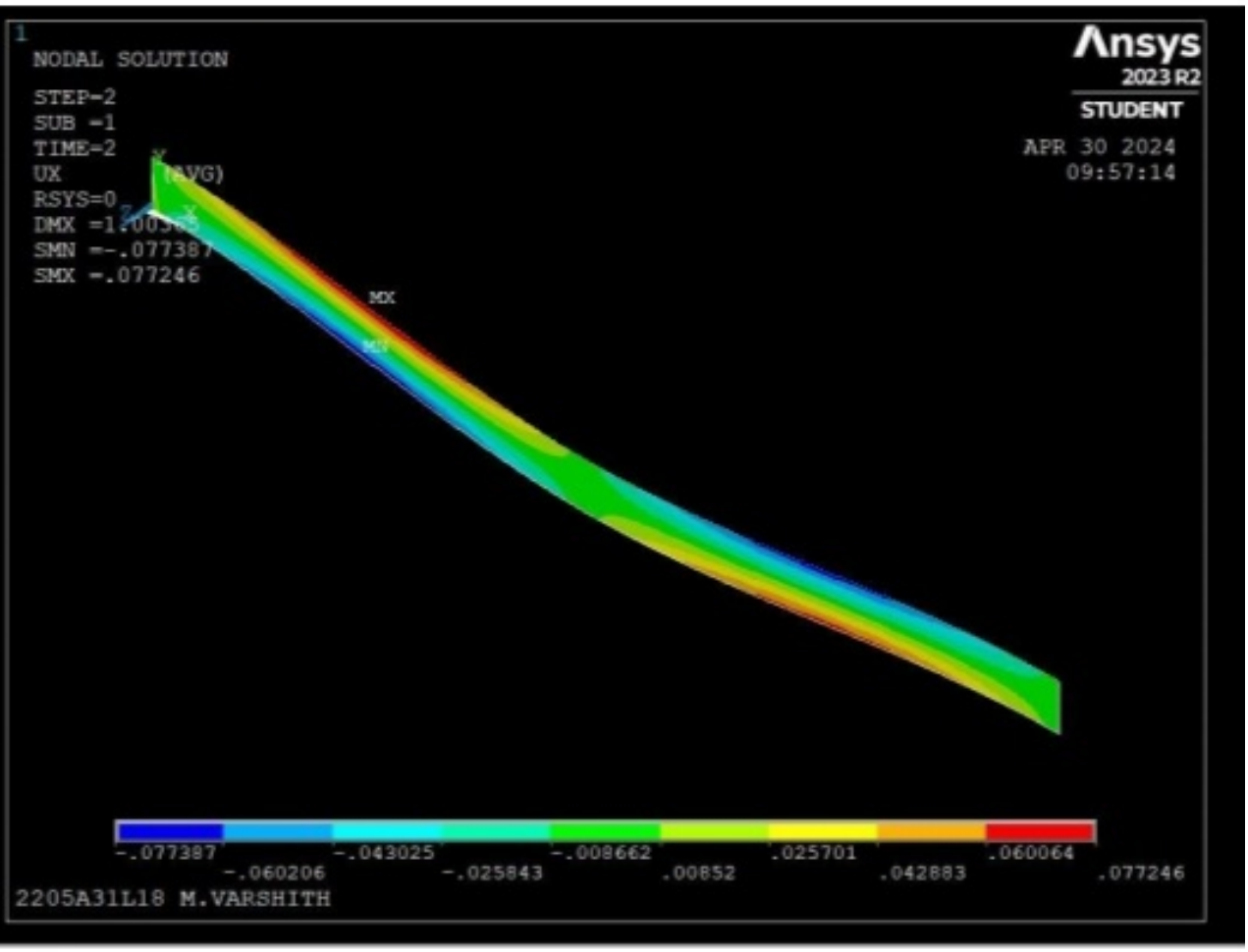
DEFORMED SHAPE

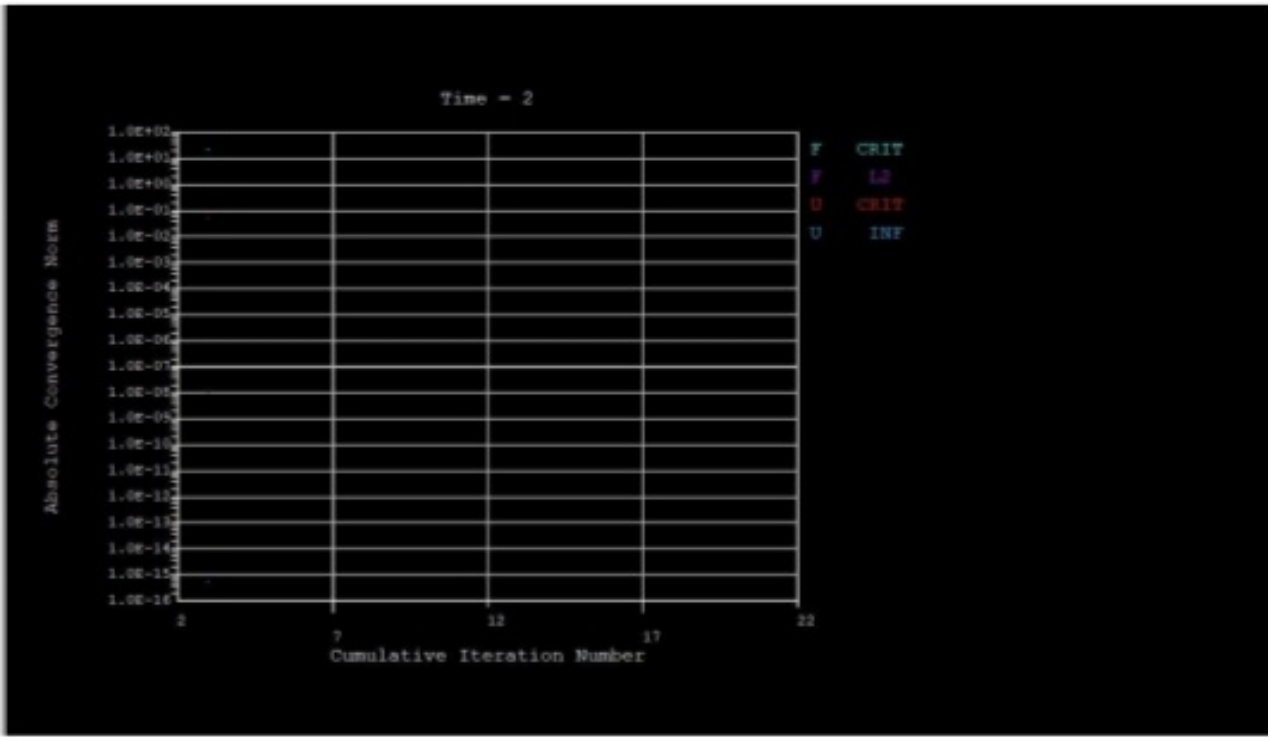
DEFORMED+UNDEFORMED SHAPE



EXPERIMENT-5 : NON-LINEAR ANALYSIS

NODAL SOLUTION



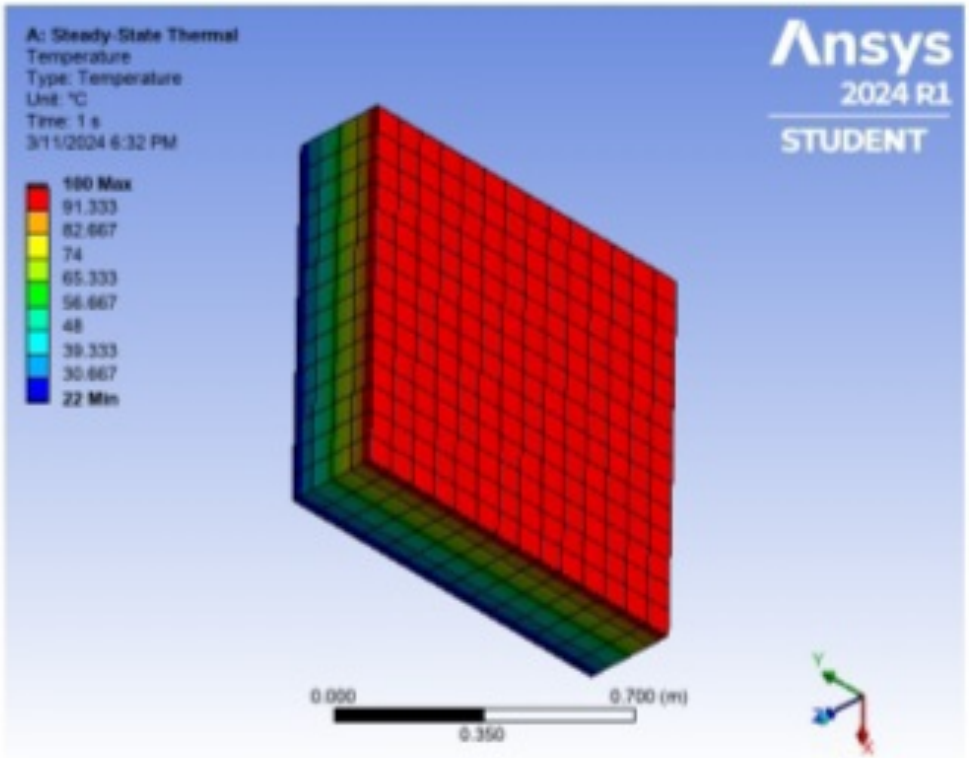


“ANSYS WORKBENCH MODELS”

EXPERIMENT-1 : FINITE ELEMENT THERMAL ANALYSIS OF PLATE

Temperature

Subject:	ANSYS WORKBENCH RECTANGLE
Author:	2105A31008
Prepared For:	
Date	Monday, March 11, 2024
Comments:	

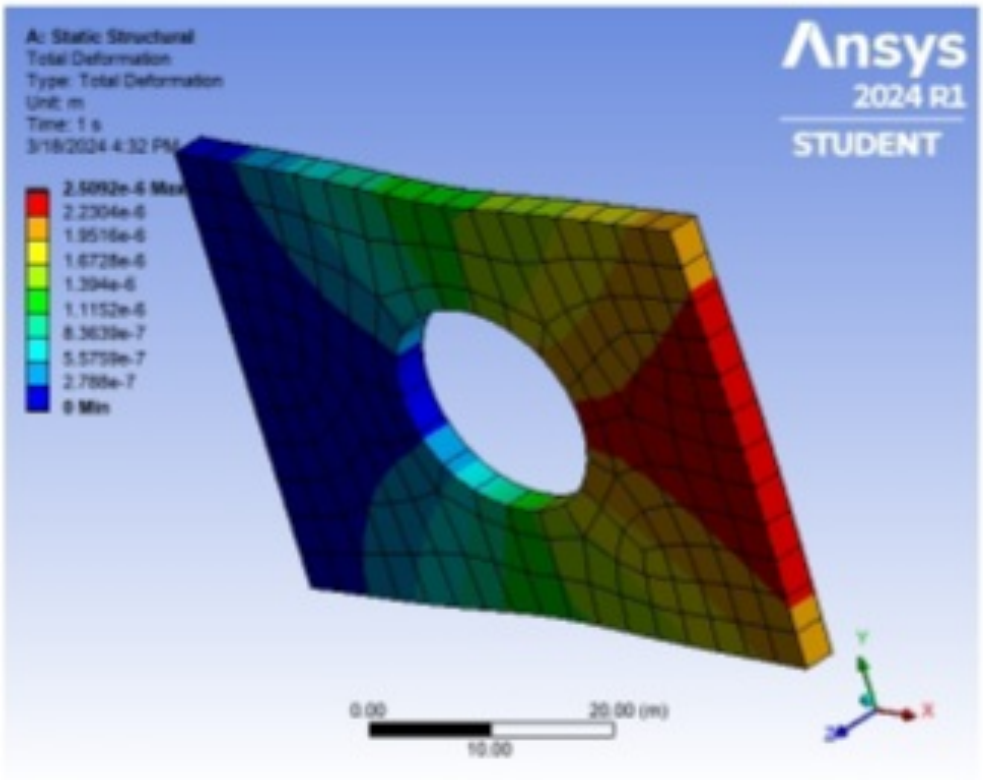


EXPERIMENT-2 : STATIC-STRUCTURAL ANALYSIS

TOTAL DEFORMATION

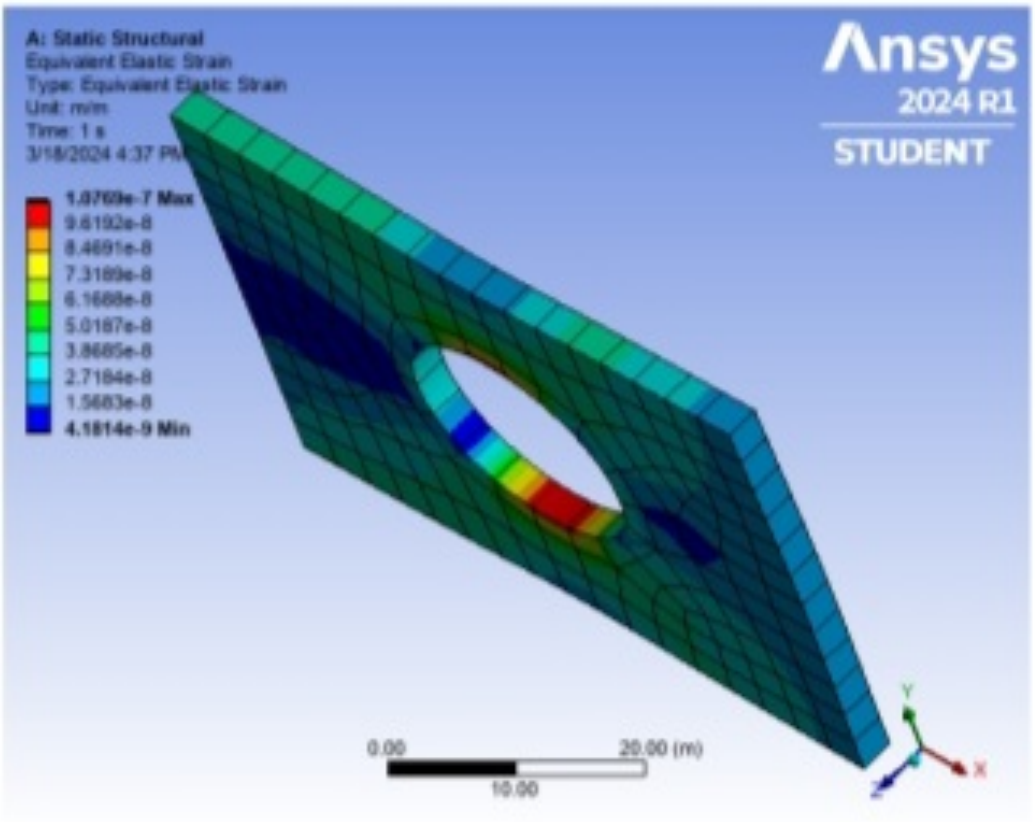
Total Deformation

Subject:	TOTAL DEFORMATION
Author:	
Prepared For:	
Date	Monday, March 18, 2024
Comments:	



Equivalent Elastic Strain

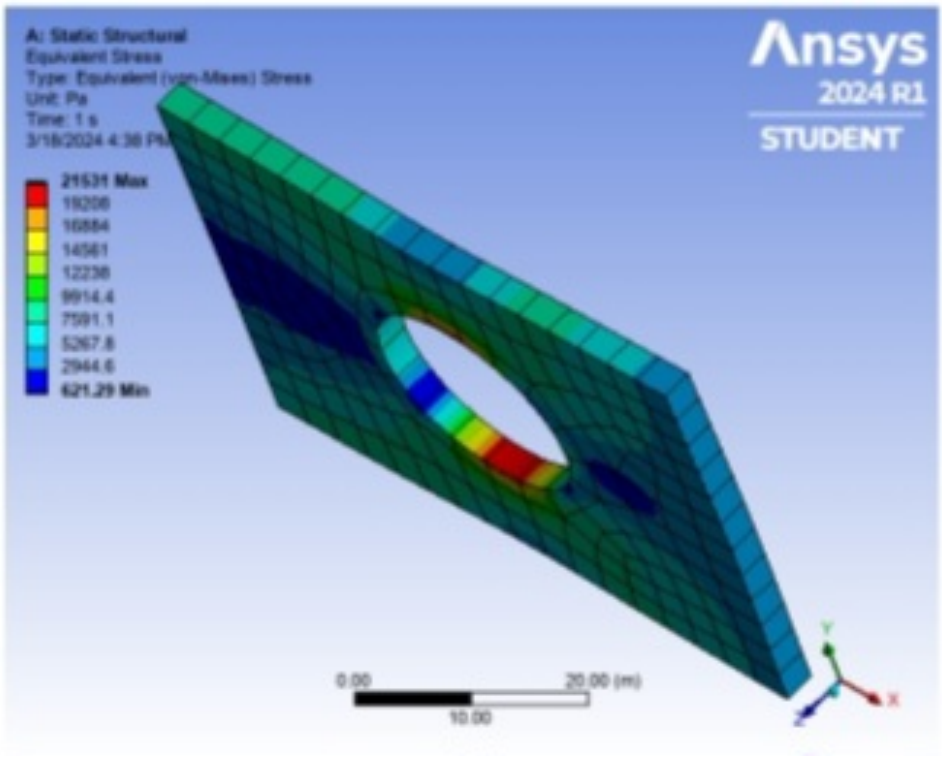
Subject:	EQUIVALENT ELASTIC STRAIN
Author:	
Prepared For:	
Date	Monday, March 18, 2024
Comments:	



EQUIVALENT STRESS

Equivalent Stress

Subject:	EQUIVALENT STRESS
Author:	
Prepared For:	
Date	Monday, March 18, 2024
Comments:	

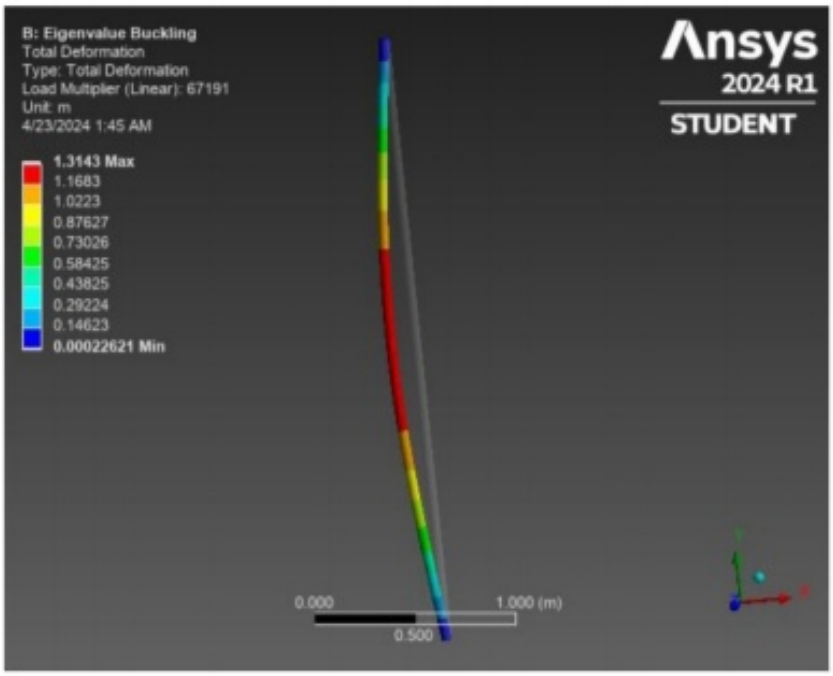


EXPERIMENT-3 : BUCKLING ANALYSIS OF COLUMN

EIGENVALUE BUCKLING

Total Deformation

Subject: Eigenvalue Buckling
Author:
Prepared For:
Date Tuesday, April 23, 2024
Comments:



EXPERIMENT-4 : PLASTIC DEFORMATION OF AN BEAM WITH UNIFORMLY VARYING LOAD

EQUIVALENT STRESS

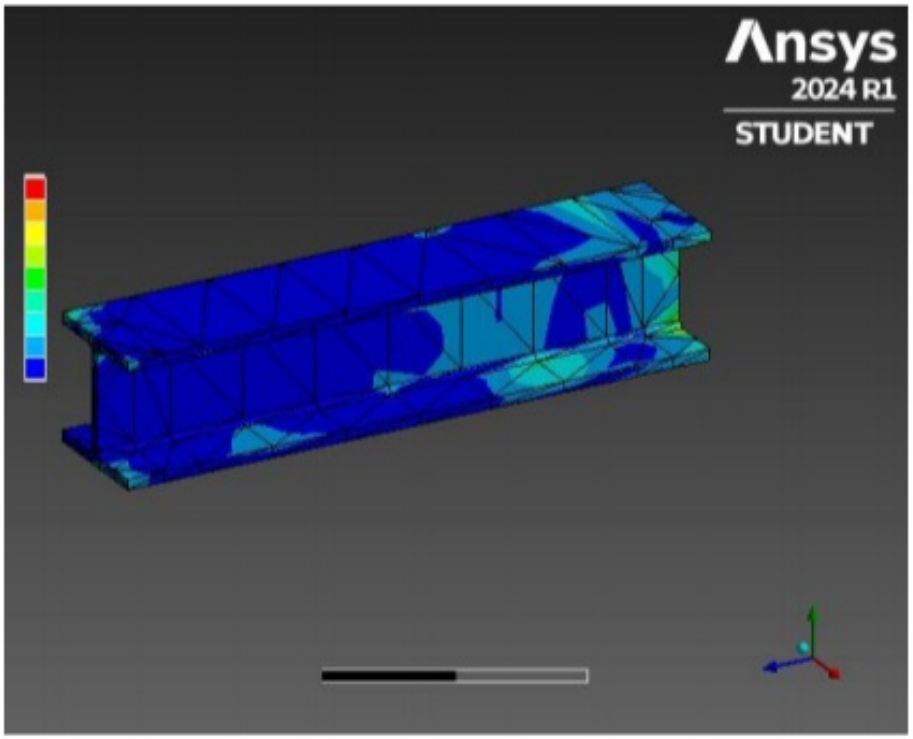
Subject: computational structural & thermal analysis

Project: 4.Non-Linear Structural Analysis of structure in ANSYS workbench

NAME&ROLL:

Date: Wednesday, April 14, 2024

Comments:



EQUIVALENT TOTAL STRAIN

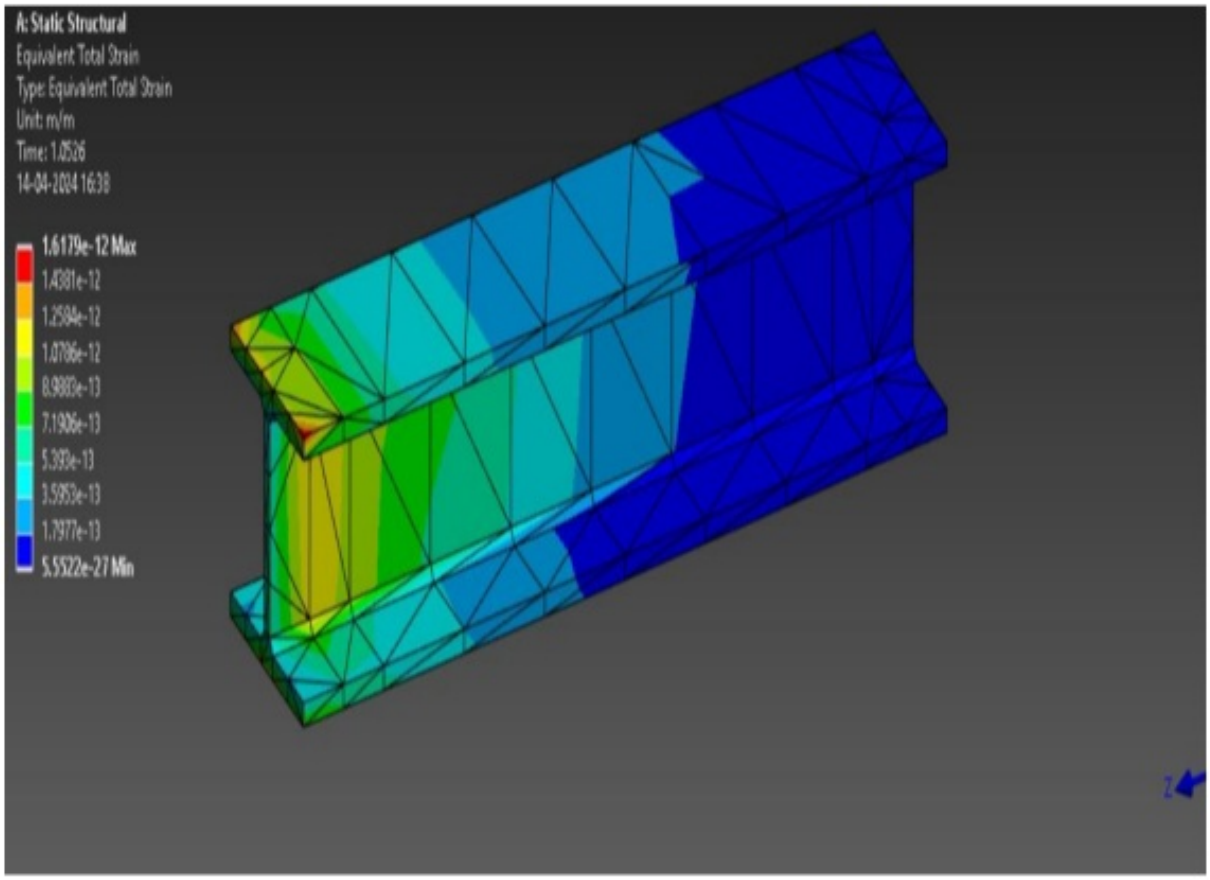
Subject: computational structural & thermal analysis

Project: 4.Non-Linear Structural Analysis of structure in ANSYS workbench

NAME&ROLL:

Date : Wednesday, April 14, 2024

Comments:



TOTAL DEFORMATION

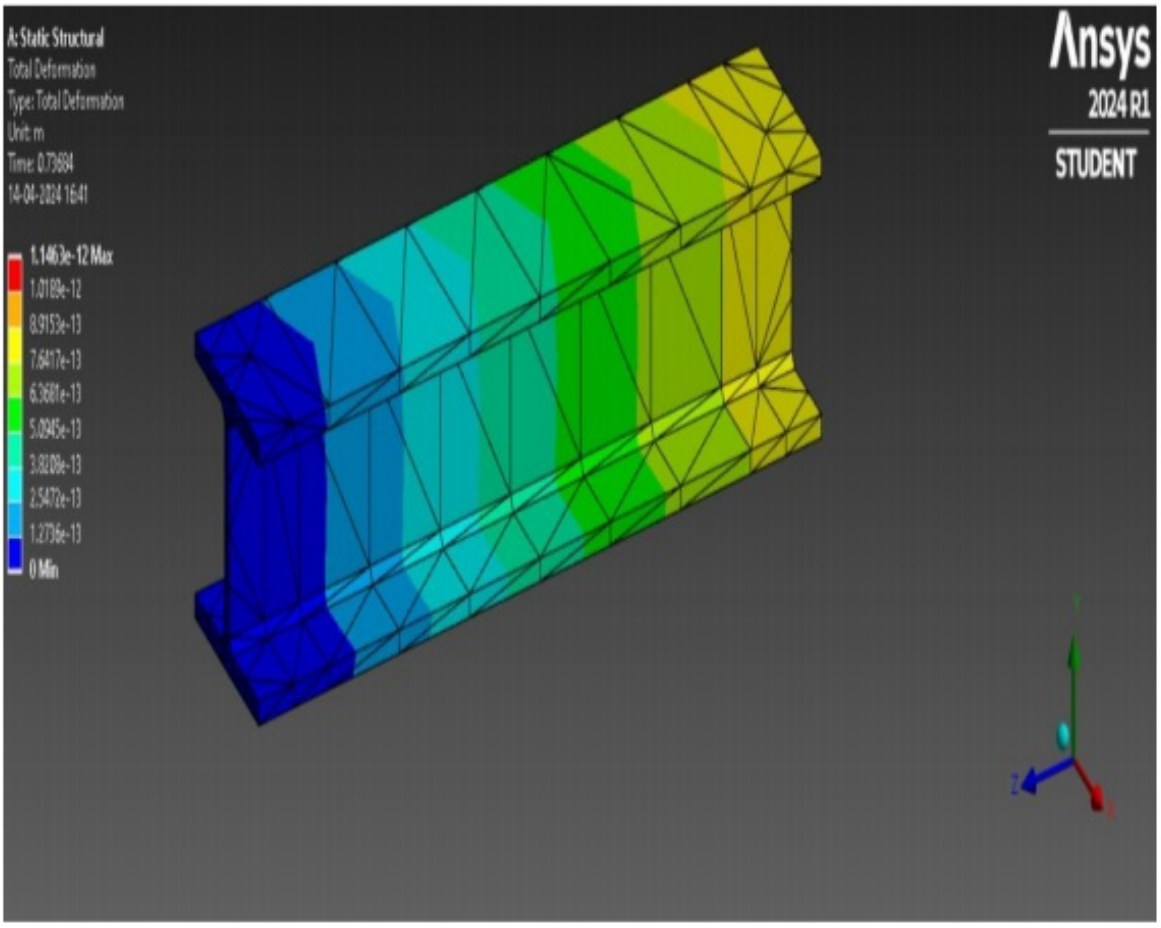
Subject: computational structural & thermal analysis

Project: 4.Non-Linear Structural Analysis of structure in ANSYS workbench.

NAME&ROLL:

Date : Wednesday, April 14, 2024

Comments:



EQUIVALENT PLASTIC STRAIN

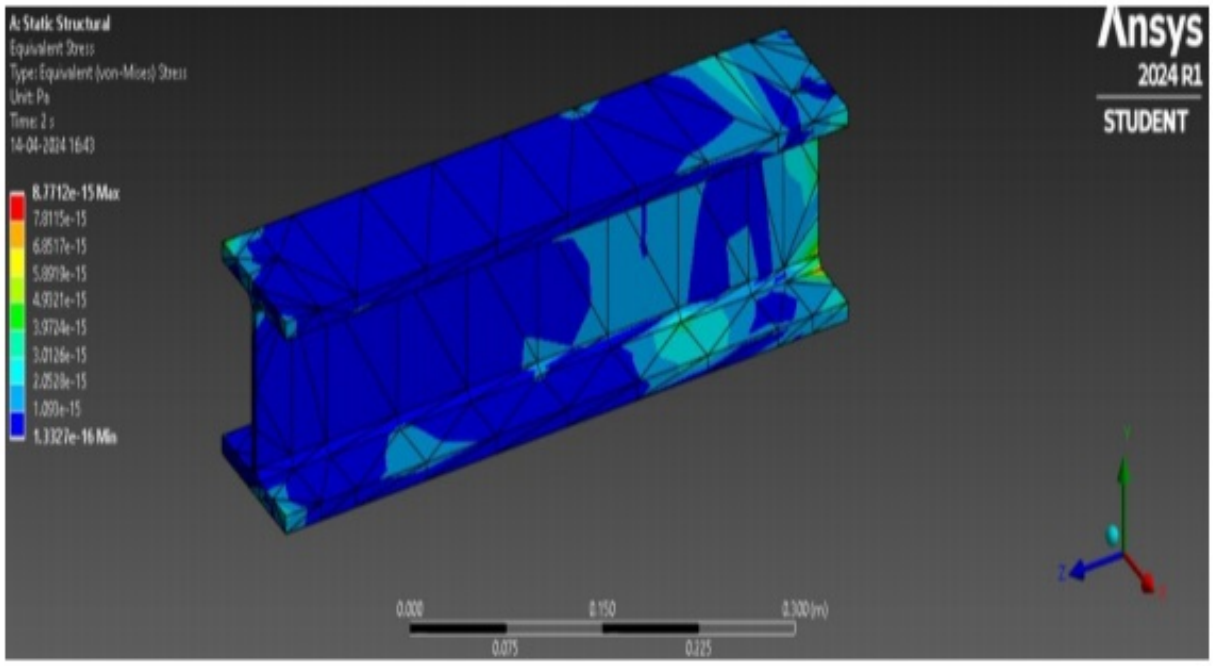
Subject: computational structural & thermal analysis

Project: 4.Non-Linear Structural Analysis of structure in ANSYS workbench.

NAME&ROLL:

Date : Wednesday, April 14, 2024

Comments:



DIRECTIONAL DEFORMATION

Subject: computational structural & thermal analysis

Project: 4.Non-Linear Structural Analysis of structure in ANSYS workbench.

NAME&ROLL:

Date : Wednesday, April 14, 2024

Comments: