

ME370: ADAMS LAB

**Department of Mechanical Engineering,
IIT Bombay**

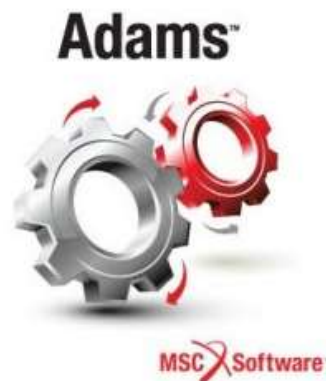


Session 1 Report

Group: 8A

Name: Ameya Halarakar

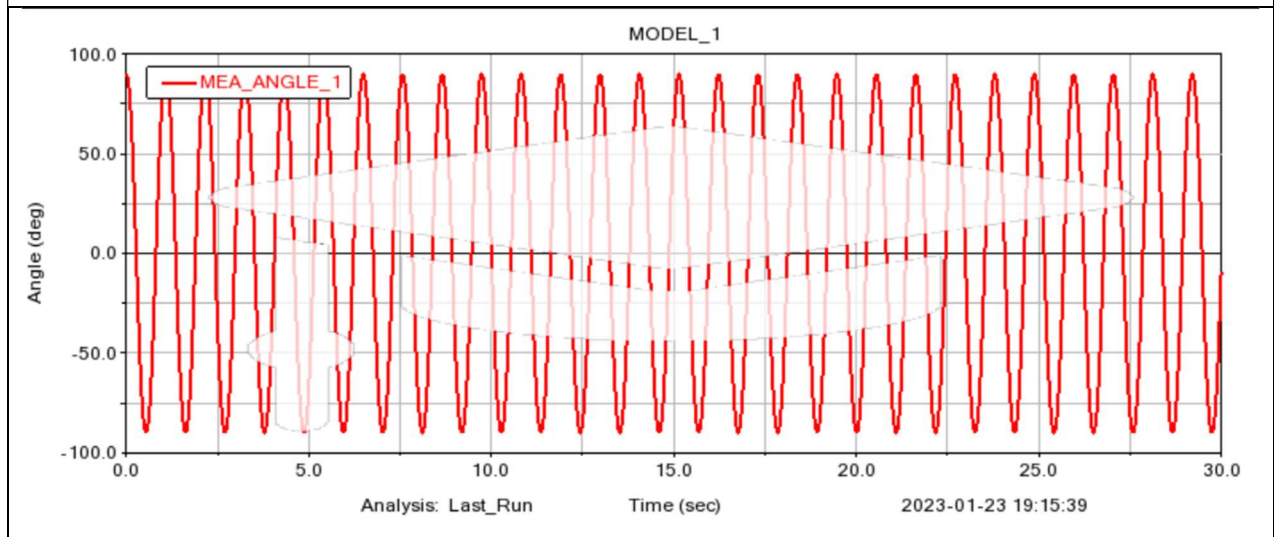
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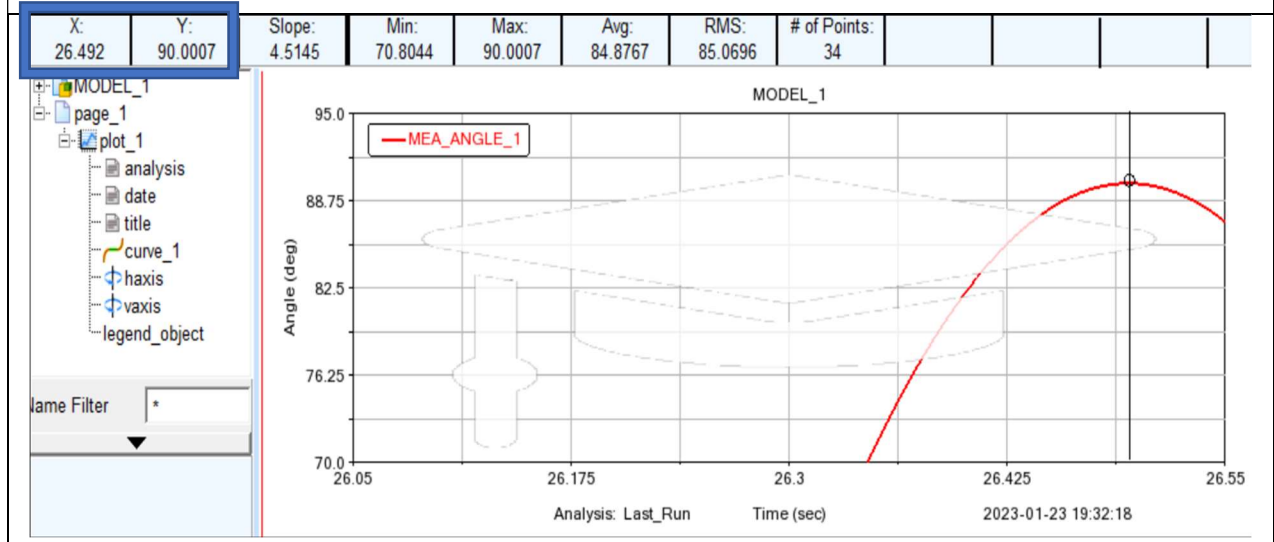
Date: January 23, 2023

Question 1 (Simple Pendulum)

VARIATION OF ANGLE BETWEEN PENDULUM AND AXIS WITH TIME

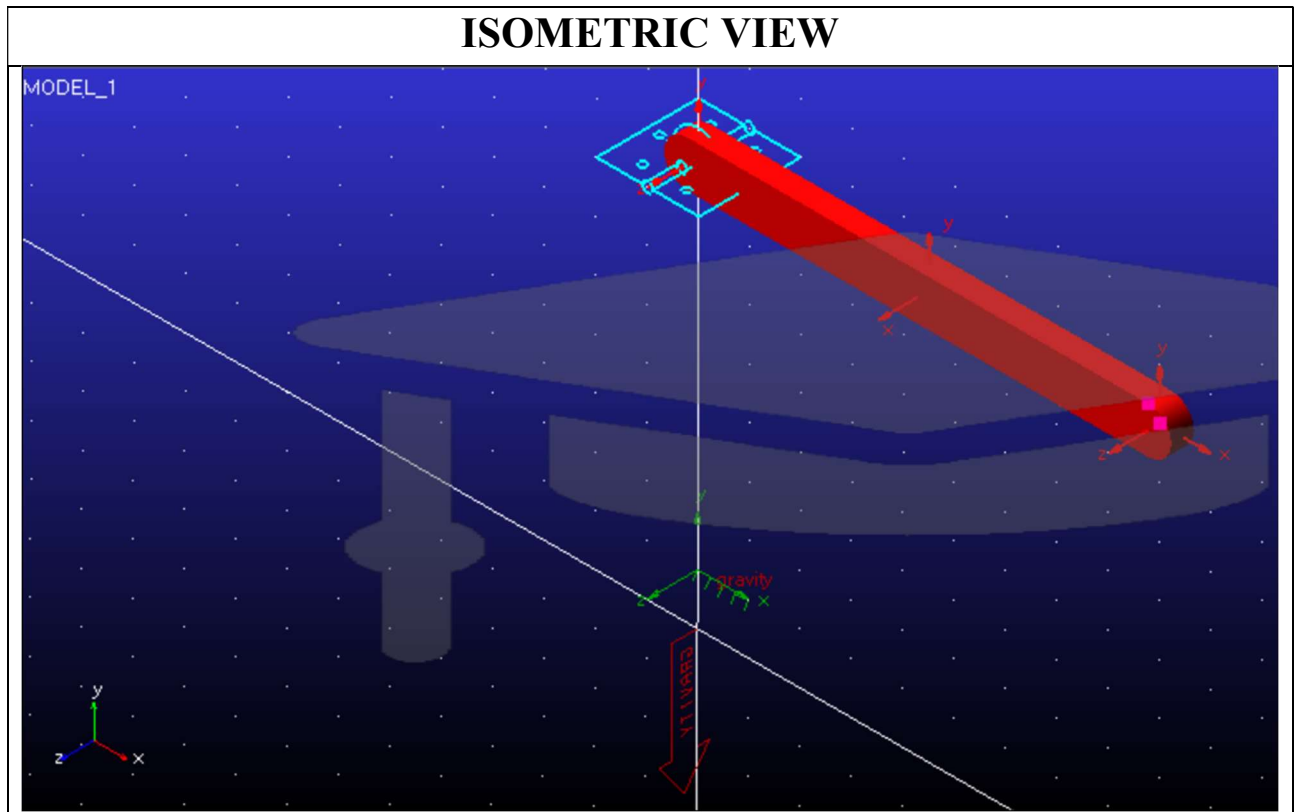


ZOOMED IMAGE OF 20TH CYCLE

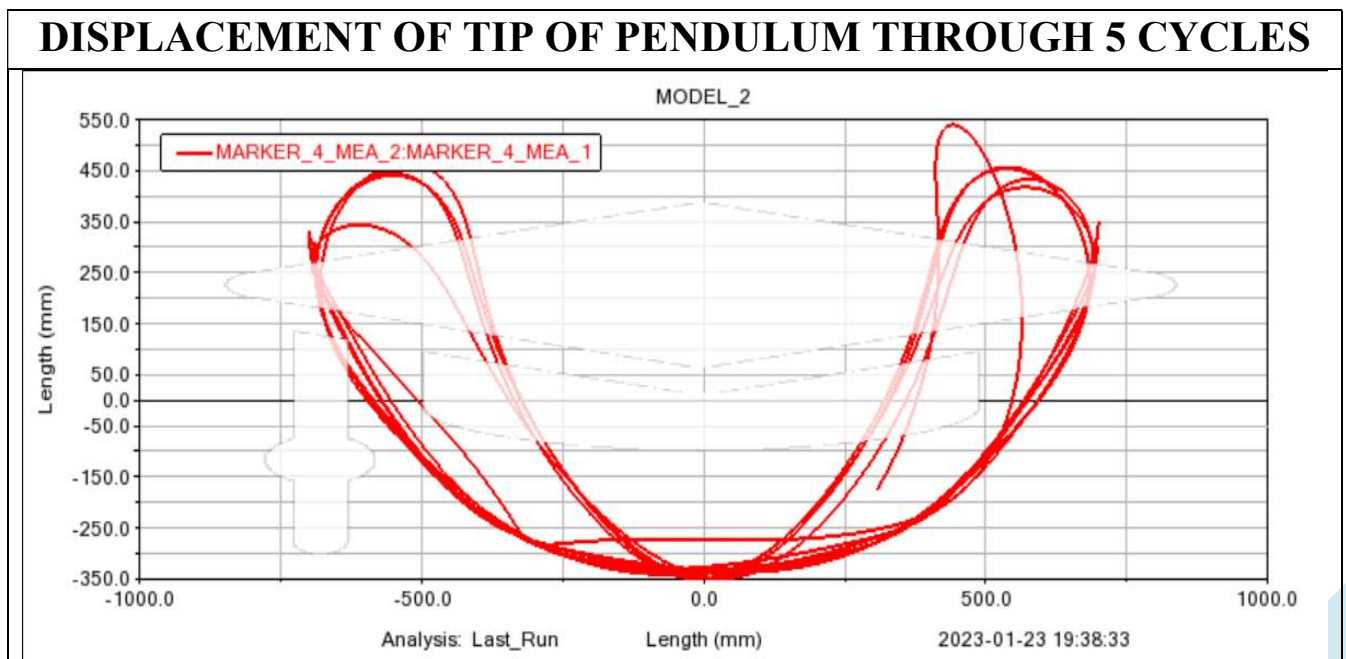


RESULT:

Angle made by the link with the vertical at the end of 20 cycles is **90.007** Degrees

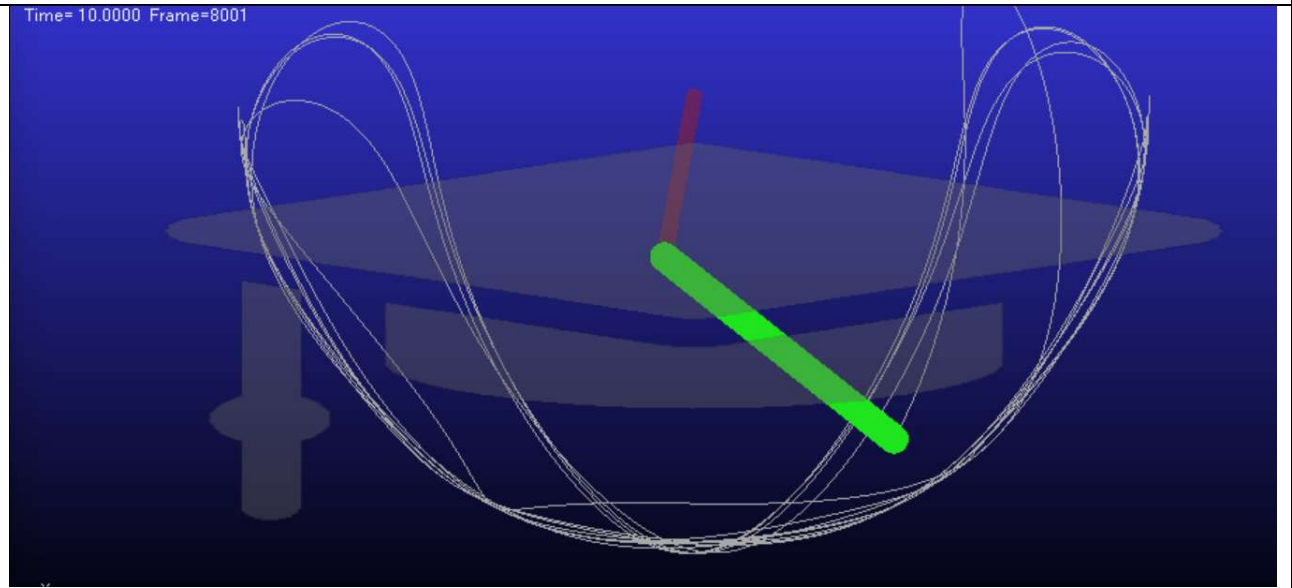


Question 2 (Compound Pendulum)

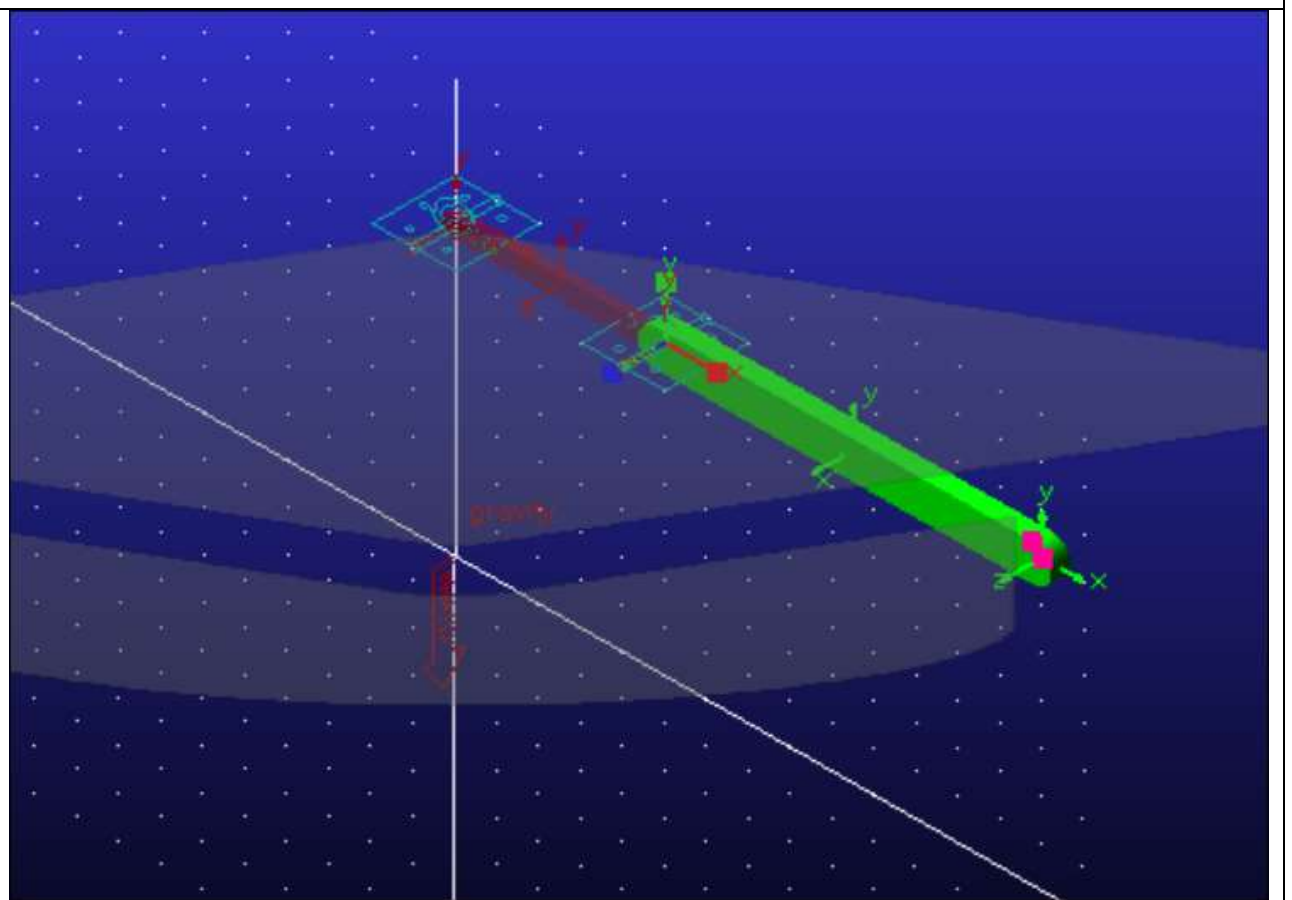


TRACE OF LOCUS OF TIP OF PENDULUM

Time= 10.0000 Frame=8001

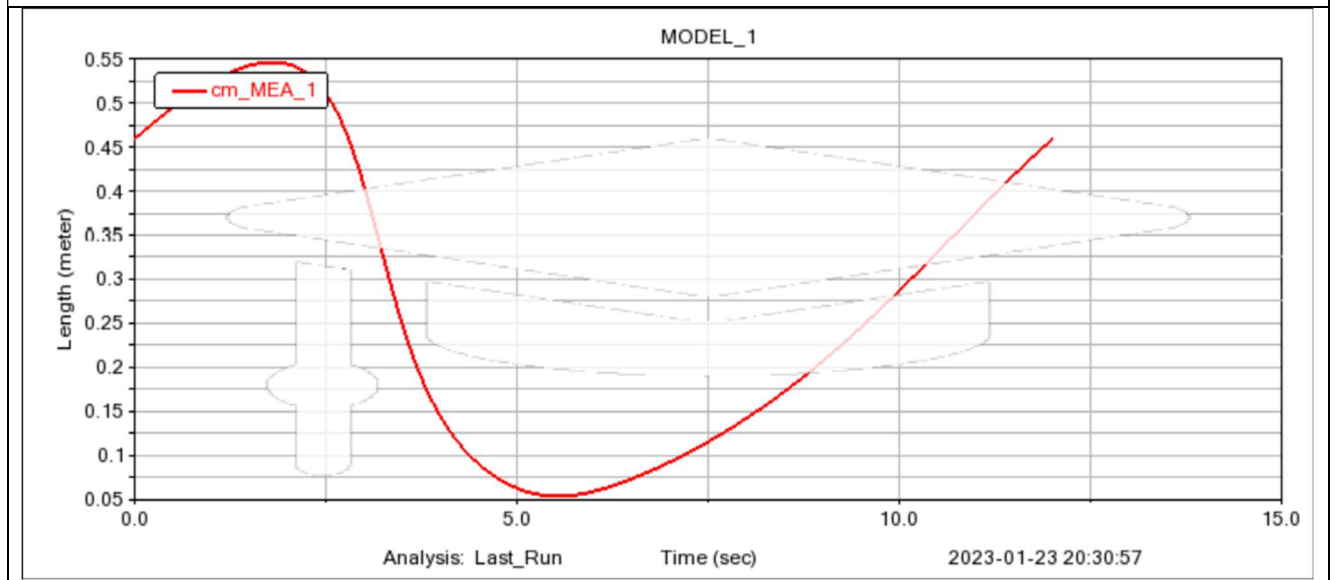


ISOMETRIC VIEW

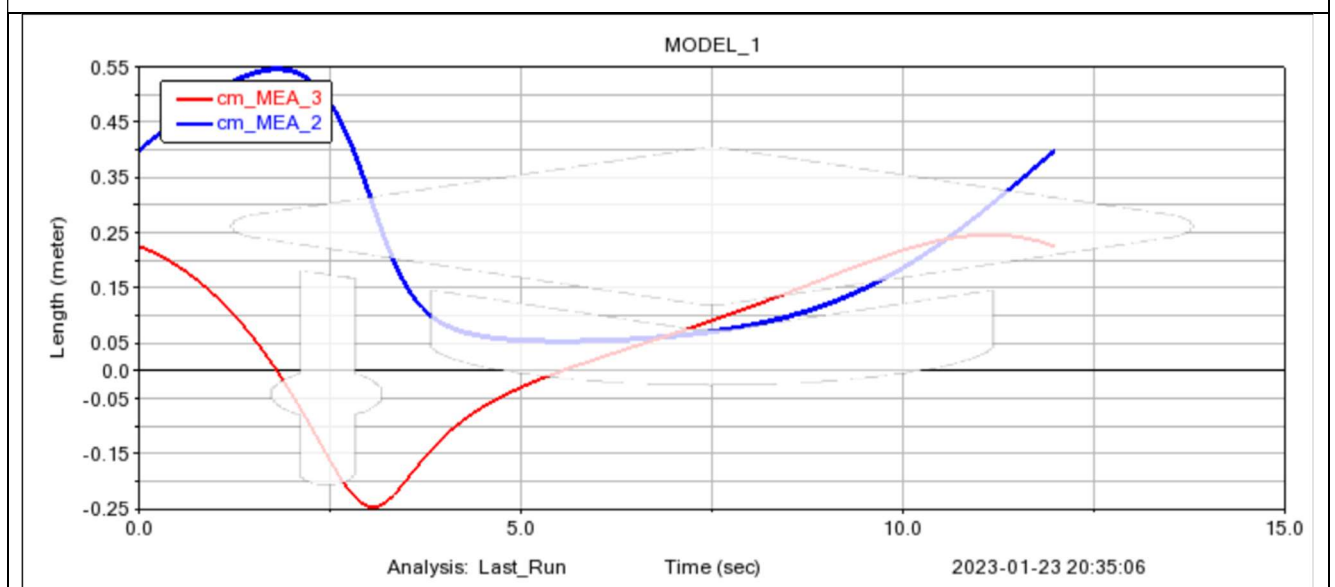


Question 3 (4-Bar Linkage)

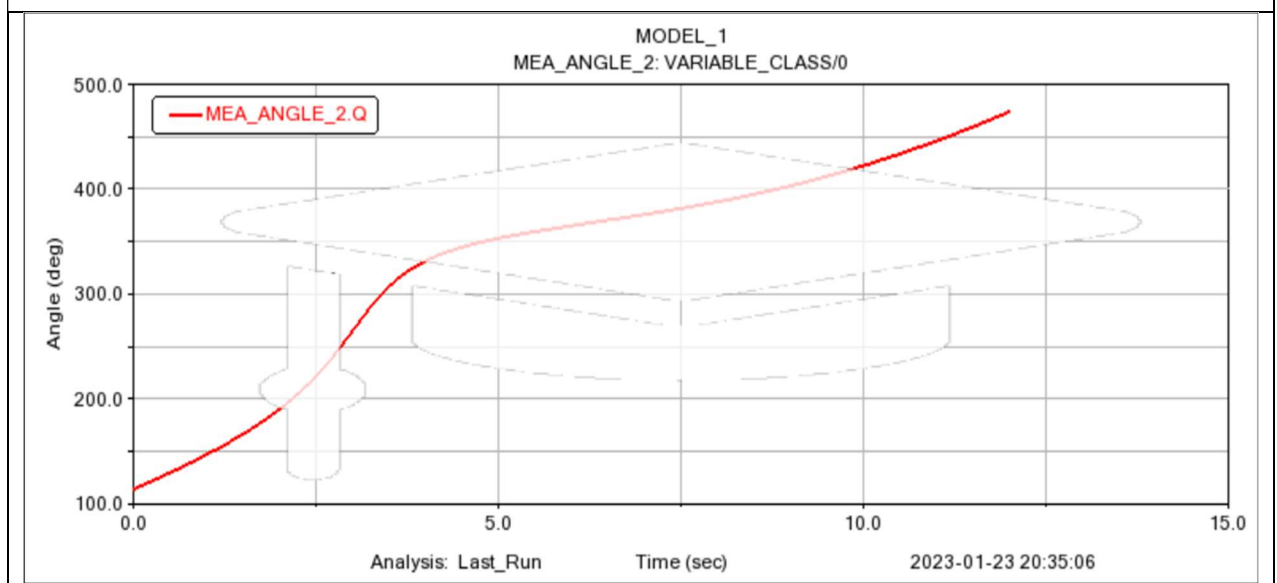
**MAGNITUDE OF DISPLACEMENT OF
MIDPOINT OF ROCKER VS TIME**



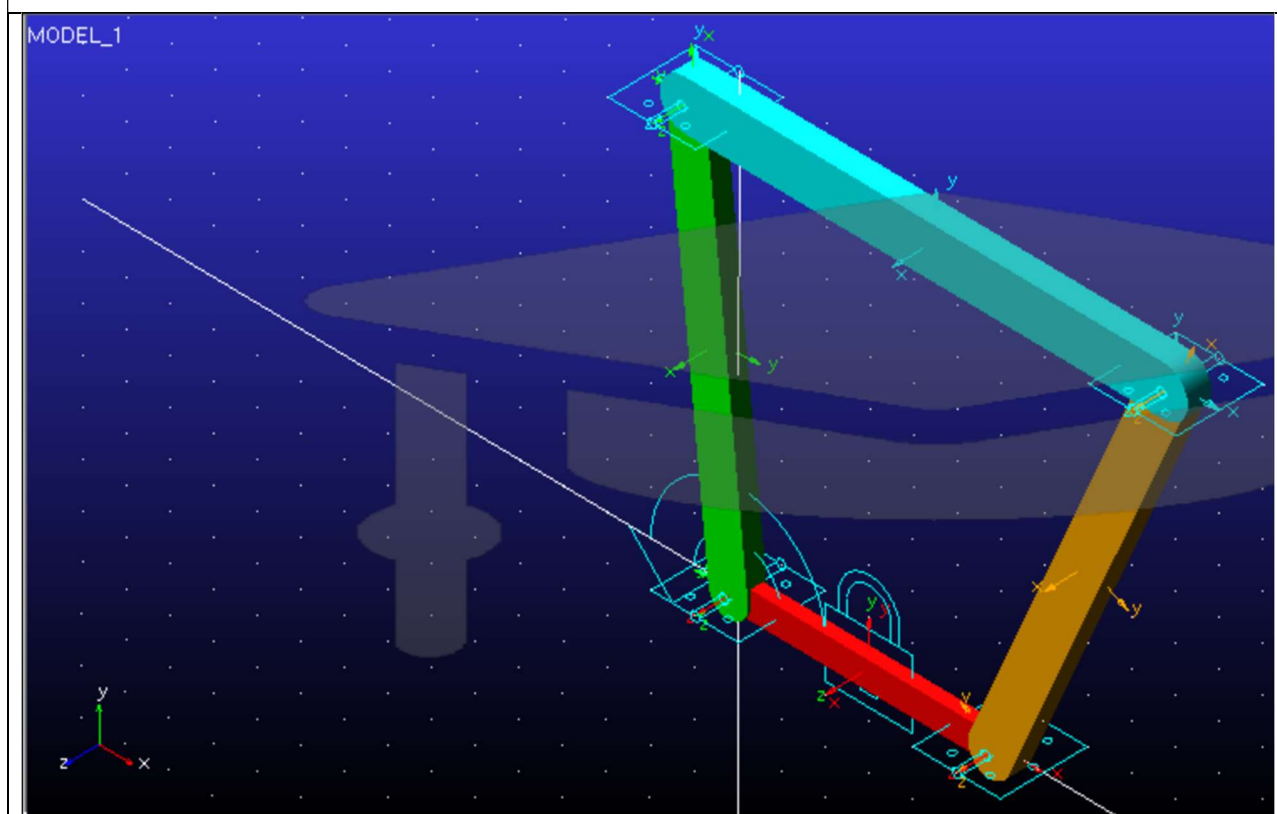
X & Y DISPLACEMENT OF MIDPOINT OF ROCKER VS TIME



ANGLE BETWEEN ROCKER & GROUND LINK VS TIME

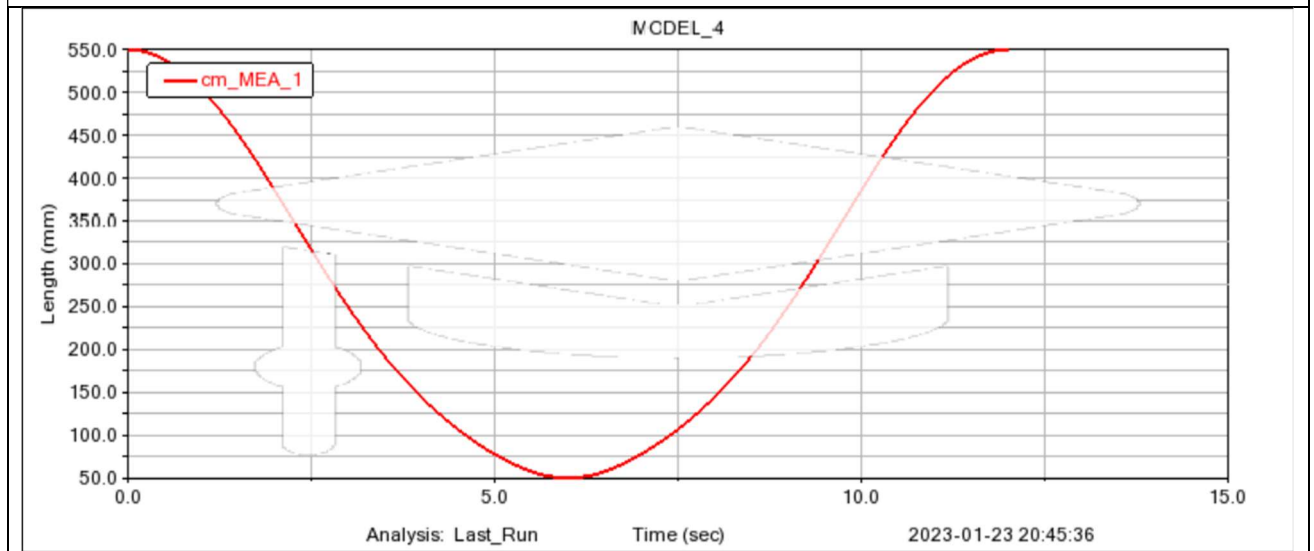


ISOMETRIC VIEW

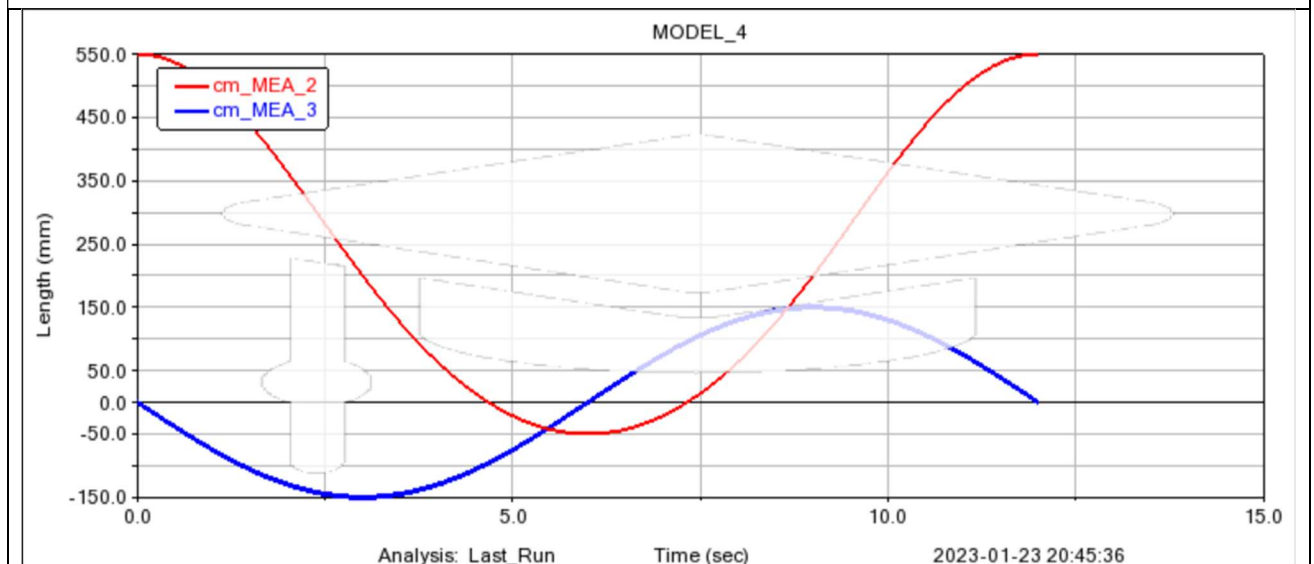


Question 4 (Slider Crank Mechanism)

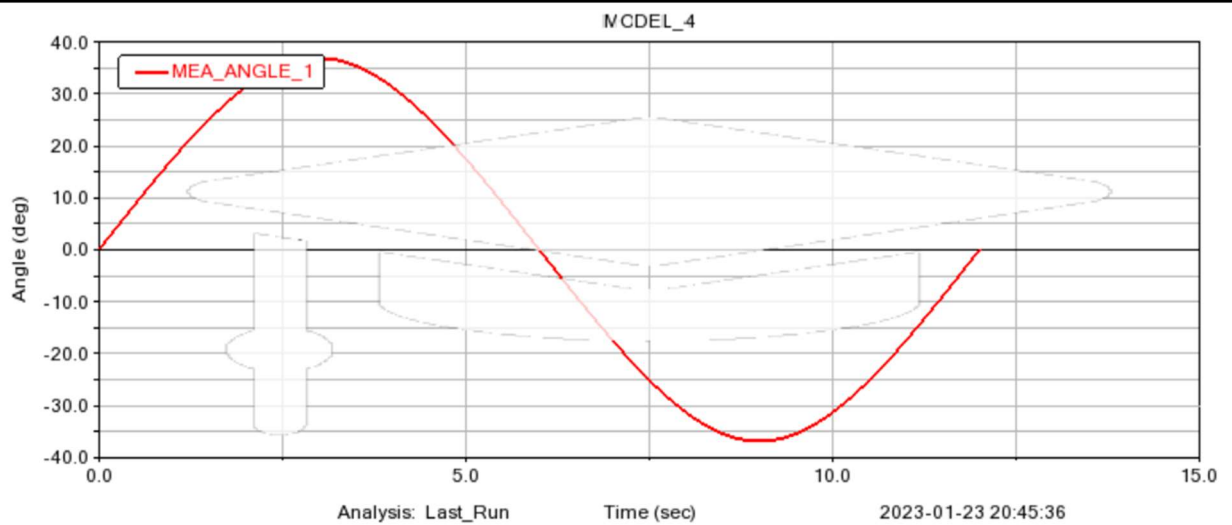
MAGNITUDE OF DISPLACEMENT OF MIDPOINT OF CONNECTING ROD VS TIME



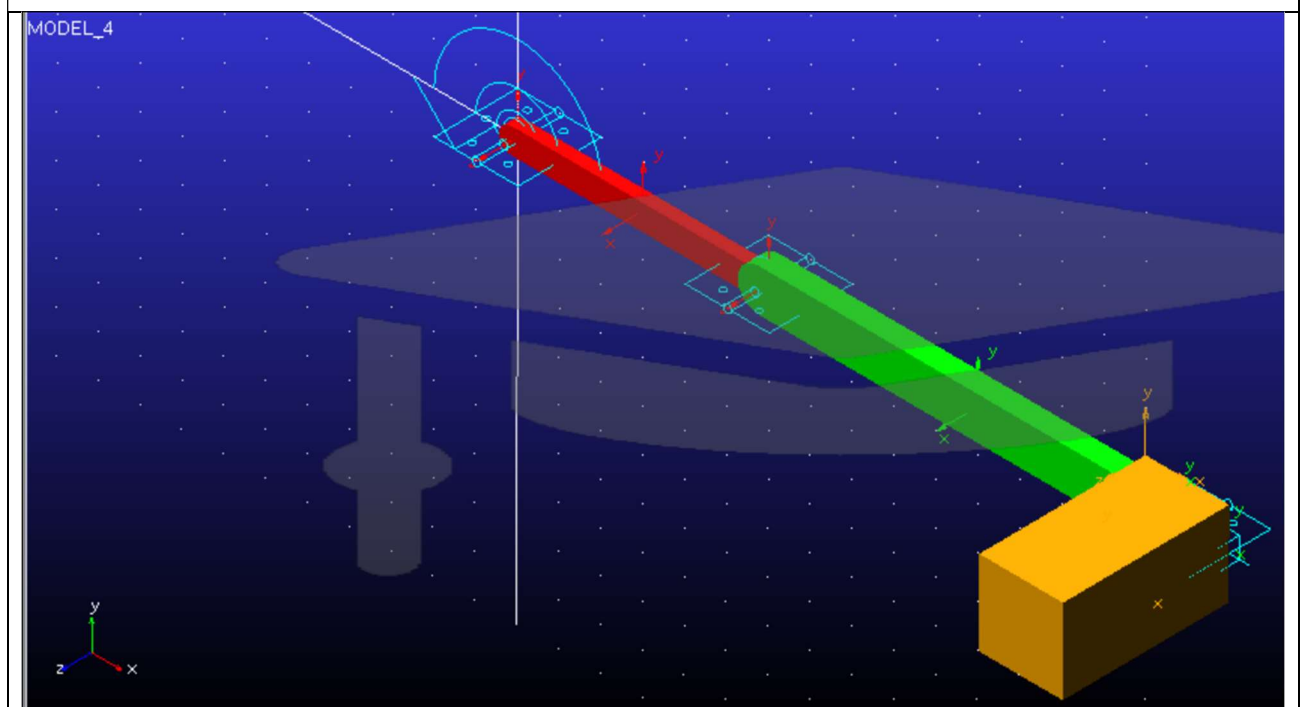
X & Y DISPLACEMENT OF MIDPOINT OF CONNECTING ROD VS TIME



ANGLE BETWEEN CONNECTING ROD & HORIZONTAL VS TIME



ISOMETRIC VIEW



—X—X—X—X—X—X—X—X—**END**—X—X—X—X—X—X—X—X—