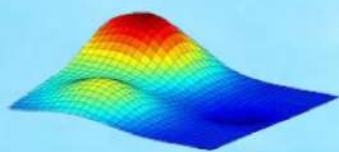**VALUE ADDED COURSE**

on

LEARNING OPEN-SOURCE SIMULATION SOFTWARE – SCILAB
(Course Code: VACMASS24)

ODD Semester

2024 - 2025

offered by

PG & Research Department of Mathematics

AUXILIUM COLLEGE (Autonomous)
(Accredited by NAAC with A⁺ Grade in the 4th cycle)
Gandhi Nagar, Vellore – 632 006, Tamil Nadu, India
www.auxiliumcollege.edu.in

in association with

Spoken Tutorial Project (STP), IIT-Bombay
(Funded by the National Mission on Education through ICT, Ministry of Education (previously MHRD), Govt. of India)

Course Objectives:

- To introduce SCILAB, a free open-source scientific software package alternative to MATLAB.
- To know the benefits of SCILAB.
- To develop the knowledge for solving numerical problems through SCILAB.
- To learn the SCILAB tool XCOS, a graphical editor to design hybrid dynamical systems models.
- To acquire knowledge to use the SCILAB software package in a Signal Processing and Python context.

Course Outcomes:

The Learners will be able to
- Understand and apply SCILAB as a computational tool.
- Perform Mathematical Modelling in SCILAB.
- Develop programs in SCILAB.
- Evaluate, analyze and plot results using SCILAB.
- Solve Non-linear, linear equations and ODE using SCILAB.
- Understand the concepts of DSP and Python with SCILAB programs.
- Develop SCILAB Toolbox for calling functions.

Topics Covered:

- Introduction to SCILAB
- 2D Visualization and Introduction to SCILAB XCOS
- Solving Linear Equations and ODE using SCILAB
- Signal Processing with SCILAB
- Python Interaction Mechanism in SCILAB

Course Duration: 30 Hours
Course fee: Rs. 500/-
Email Id: mathsdept2@auxiliumcollege.edu.in

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