

Workshop/Seminar Feedback Form

Workshop/Seminar title: Teacher's training on 'Scilab'

Workshop/Seminar Date: 04-05-2019

Venue: JIIT, Sector-128, Noida

Attended by:

Ms Swati Chawla (PGT Physics)

Ms. Rani Vaid (PGT Physics)

Resource Person: Prof. Kannan Moudgalya,

During the workshop, Scilab through Spoken Tutorials, was taught with help from Coordinators, already trained for this purpose at IIT Bombay.

Organizer: The Scilab workshop is organised by the Teaching Learning Centre (TLC) at IIT Bombay, funded by the *Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching*

(PMMMNMTT), MHRD, Govt. of India.

Profile of the Resource Person:

1. Prof. Kannan Moudgalya, Principal Investigator, TLC (ICT), Spoken Tutorial and FOSSEE

projects, IIT Bombay

2. FOSSEE Team Members, IIT Bombay

1. Content of the Workshop/Seminar

Scilab is free and open source software for numerical computation providing a powerful computing

environment for engineering and scientific applications. Scilab includes hundreds of mathematical

functions. It has a high level programming language allowing access to advanced data structures,

2-D and 3-D graphical functions.

A large number of functionalities is included in Scilab :

• Maths & Simulation

For usual engineering and science applications including mathematical operations and data analysis.

• 2-D & 3-D Visualization

Graphics functions to visualize, annotate and export data and many ways to create and customize various types of plots and charts.

- **Optimization** Algorithms to solve constrained and unconstrained continuous and discrete optimization problems.
- **Statistics** Tools to perform data analysis and modelling

- **Control Systems** Standard algorithms and tools for control system study
- **Signal Processing** Visualize, analyze and filter signals in time and frequency domains.
- Application Development
 - Increase Scilab native functionalities and manage data exchanges with external tools.
- Xcos Dynamic systems modelling Modelling mechanical systems, hydraulic circuits, control systems...

There were 25 spoken tutorials (each of duration 10-45 minutes). Some of them are

- 1. Tutorial:1- The procedure to practise .
- 2. Tutorial:2-Side-by-Side learning video (only for offline content)
- **3.** Tutorial:3- Introduction to Scilab
- 4. Tutorial:4- First four Tutorials summary
- 5. Tutorial:5 Fifth Tutorial: Installing
- 6. Tutorial 6 to 10 Getting Started
- 7. Tutorial 11 to 23 Scripts and Functions
- 8. Tutorial 24 Digital Signal Processing
- 9. Tutorial 25- Control system

2. Learning outcomes (Knowledge and Information) from the workshop/Seminar?

Scilab is a free and open-source, cross-platform numerical computational package and a high-level,

numerically oriented programming language. It can be used for signal processing, statistical analysis, image enhancement, fluid dynamics simulations, numerical optimization, and modelling, simulation of explicit and implicit dynamical systems and symbolic. Students must use Scilab in their project work and other activities involving higher order calculations.

3. Which topics or aspects of the workshop/Seminar did you find most interesting or useful and can be applied to the classroom teaching?

Projects based on Scilab can be designed and given to learners as their project work .

How will you implement the knowledge & techniques acquired to your subject?

Students must use Scilab in their project work and other activities involving higher order calculations.

4. Comments and suggestions (How do you think the workshop/Seminar could have been made more effective?)

The workshop could have one to one facility of writing and answering the questions simultaneously. Since, spoken tutorials were offline, one cannot find answers instant for their queries.

GENERAL FEEDBACK	YES	NONC	DT SURE	
• The workshop/Seminar was applicable to my job	ΥD			
• I will recommend this workshop/Seminar for other faculty members.	ΥD			
• The program was well paced within the allotted time	ΥD			
• The material was presented in an organized manner	ΥD		D	
• The resource person was a good communicator	ΥD			
• The resource person was knowledgeable on the topic	ΥD		D	
• I would be interested in attending a follow-up,	ΥD	0		
more advanced workshop / Seminar on this same subject	YD D			
• I will be able to conduct follow up workshop for				
the benefit of fellow Staff				
Members				

GLIMPSES FROM THE WORKSHOP (Photographs with captions)



Learning Sci-lab



Interaction through Video – Conferencing Software

Report submitted by

Name : Ms Swati Chawla Ms Rani Vaid Designation : PGT Physics Submission Date : 10-05-2018