SCOPE

Scilab is a scientific software package (www.scilab.org) that provides a powerful open computing environment for engineering and scientific applications. Scilab is currently being used in educational and industrial environments around the world. It is distributed freely through the Internet since 1994.

This workshop aims at providing a brief introduction to:

- Basics of Scilab
- Optimization toolbox of Scilab
- Global optimization
- Fractional Calculus and Fractional Differential Equations

Hands-on exercise on the above topics will also be conducted.

COURSE CONTENTS

- Introduction to Scilab basic commands and syntax.
- Linear algebra, matrix manipulations, solving a system of linear equations.
- Solving Ordinary Differential Equation with Scilab
- Control Systems Analysis with Scilab
- Optimization with Scilab
- Solving Global Optimization problems with Scilab
- Fractional Calculus with Scilab
- Solving Fractional Differential Equations (FDEs) with Scilab

FACULTY

The following are the workshop faculty

- Prof. P. S.V. Nataraj, IIT, Bombay
- Prof. B. M. Patre, SGGSIE&T, Nanded
- Mr. Dhiraj B. Magare, IIT, Bombay
- Mr. Vishwesh A. Vyawahare, IIT, Bombay
- Mr. Mukesh D. Patil, IIT, Bombay
- Mr. Bhagyesh V. Patil, IIT, Bombay

WHO CAN REGISTER?

Faculty from Engineering Colleges and Institutes

REGISTRATION PROCESS

There is no registration fee for the workshop.

However, participants are required to register in advance using the format given below. Please mail the duly filled registration form to **bmpatre@yahoo.com**.

Last date for registration is April 20, 2010.

This workshop is funded by the open source software project of National Mission on Education through Information and Communication Technology (ICT).

Web Links:

- I) http://www.spoken-tutorial.org/NMEICT-Intro II) http://scilab.in
- III) http://fossee.in

REGISTRATION FORM (Registration is Free)

- 1. Name
- 2. a. Designation
 - b. Institute
- 3. Mailing Address
- 4. E-mail
- 5. Phone Fax
- 6. Is your college approved by Yes/No AICTE
- 7. Educational Qualifications
- 8. Experience:

Place Signature of the Applicant

SPONSORSHIP CERTIFICATE

Mr. /Ms

Working in this institute as is hereby sponsored for the workshop.

Date: Signature of the sponsoring

Place: authority

TRAVELING ALLOWANCES/ACCOMMODATION

Outstation participants attending this workshop will be paid second class sleeper railway or bus fare, subject to a maximum of Rs. 600/- or actual fare whichever is less. Accommodation for outstation participants will also be provided at Nanded. (Please submit one passport size photo for our official records)

CONTACT/POSTAL ADDRESS

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VENUE

Central Computing Facilities and Seminar Hall (CSE Department)

SGGS Institute of Engineering and Technology, Vishnupuri, Nanded-431606

IMPORTANT DATES

Last Date for Registration: April 20, 2010

Workshop: April 23-25, 2010

Candidates will be informed about their selection by E-mail on or before 21st April, 2010.

About MHRD and FOSSEE

The overall aim of the Ministry of Human Resource Development (MHRD), Govt. of India, Scilab project is to facilitate the absorption of existing Free Open Source Software (FOSS) alternatives to commercial packages such as Matlab, Mathematica, Maple and Magma in science and Engineering Education across the country. This is achieved by generation of course-related and general-purpose learning material for engineers and scientists at both a beginner and advanced level. A major step in this regard is to spread the adoption of FOSS in education across the country by hosting workshops for training teachers and students.

About IIT Bombay

IIT Bombay is recognized as one of the centres of academic excellence in the country. Over the years, there has been dynamic progress at IIT Bombay in all academic and research activities, and a parallel improvement in facilities and infrastructure, to keep it on par with the best institutions in the world.

About SGGSIE&T, Nanded

Named after the tenth Sikh Guru, Shri Guru Gobind Singhji (SGGS) Institute of Engineering and Technology, Vishnupuri, Nanded was established by Govt. of Maharashtra in the year 1981 as a 100% grant-in-aid institution. The institute is autonomous since 2004. Hon. B.N. Kalyani, an eminent industrialist, (heading the Kalyani Group of Companies) is also working as Chairman of the Governing Board of this institute. The Government has also appointed renowned personalities from the business, industry, academics and its senior administrative cadre on the Governing Board.

Workshop on

Scilab and Its Applications to Global Optimization and Fractional Differential Equations

April 23-25, 2010

Jointly Organized by



Indian Institute of Technology, Bombay

and



Department of Instrumentation Engineering, SGGS Institute of Engineering & Technology, Nanded (MS)