Workshops

We organise basic Python workshops at IIT Bombay and also at other institutions in the country. During these workshops, the participant would use Spoken Tutorials to work on various exercises and examples.

Salient features of Workshops

- Free of cost.
- Recipe-based approach for beginners.
- High quality material taught by experts in the domain
- One may start using Python for curricular needs like plotting, symbolic & numeric calculations, right away.

Scipy *(International Conference on Python for Education & Scientific Computing)*

SciPy.in is a conference providing opportunity to spread the use of Python programming language in the Scientific Computing community in India. This conference has been successfully organised by **FOSSEE** for the last four years.

Weblinks

SciPy:
http://scipy.in

FOSSEE:
http://fossee.in

Spoken Tutorials:
http://spoken-tutorial.org

Downloads:
http://fossee.in/Downloads

Mailing list for discussion and help:
http://fossee.in/mailman/listinfo/python-help

Contact us

General help, Queries & Workshop requests:
Email - info@fossee.in

IIT Bombay

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**National Mission on Education through ICT
MHRD**

python

![FOSSEE logo - better SCIENCE AND ENGINEERING education]

Free and Open source Software in Science & Engineering Education.

About FOSSEE

The goal of this project is to enable the teachers and students of Science & Engineering in India to use open source software tools for all their computational needs, thereby improving the quality of instruction and learning. We are focusing on Python in the area of Scientific Computation.

We are at

The project is based at the **Indian Institute of Technology, Bombay (IIT-B).**

Funded by

The project is funded by **MHRD** as a part of the National Mission on Education through **Information and Communication Technology (NMEICT)**.

We do

- Solve curricular exercises using **FOSS** tools.
- Organize sprints, generate relevant material.
- Design courses to teach the use of **FOSS** tools.
- Conduct workshops to spread the adoption of these tools.
- Conduct conferences to popularize these tools across the country.
- Create content for these courses - written material, spoken tutorials and Lectures.

We've done so far

- Conducted 35 workshops across India
- Developed Text Book Companion project that is running successfully
- Assisted several institutes in training faculty for usage of **Python**
- Conducted first SDES trial course at IIT Bombay and BMS college, Bangalore
- Held the International Conference on Scientific Python - **SciPy 2009/10/11/12**
- Conducted a 10-day workshop (5 weekends) on Python, Linux CLI and Latex tools for 750 teachers across the country

![Python logo]

What is Python ?

Python is a general-purpose, high-level programming language with simple, easy to learn syntax that emphasises code readability.

Why Python ?

- Easy to learn
- Portable and cross-platform
- Full-fledged programming language
- Excellent scientific computing libraries
- Supports both Procedural and Object Oriented programming
- SAGE, NumPy, SciPy, Matplotlib and Cython make Python an Open Source alternative to MATLAB, Mathematica, Magma and Maple

Applications of Python

- User interfaces
- 2D/3D Graphics
- Web development
- Exploration and Visualisation
- Numeric and Symbolic computation
- Game development & other domains
- High performance Parallel Computing

Projects of Python

Spoken Tutorials

A Spoken Tutorial refers to explaining any computer-based activity with the screen cast and a narration. The screen-casting software captures all the activities on the screen along with the narration to play it back as a video clip.

The Spoken Tutorial can be used to explain the steps involved in carrying out any screen-based activity, such as using the features of some software.

SDES Course

(Software Development techniques for Engineers & Scientists)

Engineering students use computers for a large number of curricular tasks - mostly computation centered. This course is intended to train those students in good software practices and tools for producing code and documentation.

Textbook Companion Project

The Textbook Companion Project aims to port worked out examples and select exercise problems from standard text books using Open Source Software tools, such as Python. Any standard text book can be used for this purpose.

The objectives of the project are:

- To develop programming logics for the problems given in the textbooks
- Create a repository with solutions to the problems, for future reference