

Online courses on Spoken Tutorial platform (IIT Bombay)

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MIT ACSC, Alandi (D), Pune has taken the subscription of online courses conducted by Spoken Tutorial for the students and faculties from all the streams.

About Spoken Tutorial

The Spoken Tutorial project is the initiative of the 'Talk to a Teacher' activity of the National Mission on Education through Information and Communication Technology (ICT), launched by the Ministry of Human Resources and Development, Government of India. It is a flexible learning mode through which a student/faculty can learn anywhere/anytime. It is a project initiative taken by IIT Bombay about teaching and learning a particular FOSS (Free and Open Source Software) like Linux, Scilab, LaTeX, PHP & MySQL, Java, C/C++, LibreOffice etc. via an easy Video tool.

Online Course details

Level: National

Course Structure:

- Participant can complete any 6 courses in duration of 1 year.
- 3 Courses per Semester.

Selection of the course: The participants can select the courses from the list of courses available on the Spoken Tutorial Portal.

Eligibility: UG, PG or Research scholar students and even teachers of Science, IT, Engineering, Commerce and Management disciplines can learn any of the FOSS on this platform.

Registration: No registration fee for the faculties and students of MIT ACSC.

Benefits:

- Participants with this knowledge will have an edge in the job market.

- Participants can become entrepreneurs and use Open Source Software in their businesses, and save money, if they were using commercial software.
- Participants will receive Certification from reputed Institute, which will be helpful for them in their career.

Contact: For any query contact Program Coordinator Mr. Sunil Mahajan, Head Electronics Department

List of the courses offered by Spoken Tutorial:

Basic Computer Skills & Office Automation	
Software / FOSS name	Applications / Skills & Employability
Introduction to Computers	How to use computers for day-today activities.
LibreOffice – Writer, Calc, Impress, Base, Draw, Math	Office Automation system – Documentation, Spreadsheet, Slide making.
Linux, Linux AWK, Ubuntu, BOSS	Free and Open source operating system. Actively being taken up by E-Governance programs and SMEs.
Firefox	Web browser. Used for all internet browsing purposes.
Tux Typing	Teaches 10 Finger typing.

Programming Languages / Information Technology	
C / C++, Advance C++, Java, Java Business Application, Netbeans	C is the most popular language worldwide. Java is also popular with ability to run the same program on different systems relevant to World Wide Web <i>software</i> . NetBeans is an open-source integrated development environment (IDE). Smooth JavaScript editor, Templates profiler & GUI Design tool. JBA is used to create business applications and provide domain expertise.
Ruby	Ruby is an object oriented scripting language use widely for developing web applications.
GIT	GIT is a version-control system for tracking changes in computer files and coordinating work on those files among multiple people.
Android App using Kotlin	Learn to architect and develop Android apps in the Kotlin programming language. With these techniques you'll create apps in less time, writing less code, and with fewer errors.
HTML	Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser.

Modelling and Simulation	
DWSIM	DWSIM is a software for modeling, simulation, and optimization of steady-state chemical processes, Use in Chemical industry.
OpenModelica	OpenModelica is used for Simulating, Optimising, Analysing complex dynamic systems. Eg. In power plant, water treatment, automotive processes optimization.

Mathematics / Statistics	
GeoGebra	Dynamic Mathematics Software (DMS) for teaching and learning mathematics from middle school through college level.
R (like SPSS)	Programming language used for statistical computing and graphics.
Biopython	Tool for Computational Biology and Bioinformatics.

Scripting Languages / Web Development	
Python	Used for web programming eg. Django, Zope, Google App Engine, Desktop applications, Web Development sites eg. Facebook, Google search, Wikipedia.
PERL	Perl is a general-purpose programming language useful as a Glue language for tying together systems – hence invaluable to System Administrators and for Web Development.
PHP & MySQL	Used as Web development and Database Management Systems package.
Drupal	Drupal is a content management system (CMS) written in PHP and distributed under the GNU General Public License. Useful for website-building and web applications.

Mechanical / Civil / Electrical – Engineering disciplines	
Open Foam	Data processing and visualisation. Aerodynamics, Building constructions.
Oscad (eSim)	Tool for circuit design, simulation, analysis and PCB design.
QGIS	QGIS is an application that supports viewing, editing, and analysis of geospatial data. It allows users to analyse and edit spatial information, in addition to composing and exporting graphical maps.

Chemistry / Bio-Chemistry	
Avogadro	Avogadro is a molecule editor and visualizer.
GChemPaint	GChemPaint allows you to draw and display 2D chemical structures. Very useful to teach and learn abstract chemistry concepts.
Cell Designer	Cell designer is a drawing tool – a structured diagram editor for biochemical networks & gene-regulatory drawings.
Jmol Application	It is used for molecular modelling chemical structures in 3 dimensions. eg. In molecular biology pertinent structures.

Electronics / Physics	
Arduino	Arduino is an open source platform used for building electronics projects. Or creating interactive objects or environments. eg. Used in Robotics
Ngspice	It is a program used in integrated circuit and board-level design to check the integrity of circuit designs and to predict circuit behavior.
ExpEYES	ExpEYES stands for Experiments for Young Engineers and Scientists. A tool for learning science by exploring and experimenting.
Single Board Heater System(SBHS)	The application of this device is in the Control Systems area of Engineering.

Learning Management System	
Moodle	Moodle is a learning management system or an online platform for customized learning, assignment and assessment purposes.
LaTeX	The best tool for Technical writing. eg. Math typesetting for Science, Engineering, Technology writing of theses, projects, journal articles, books etc. LaTeX has automatic generation of high quality PDF reports.
Scilab (like MATLAB)	Scientific computation package for Advanced mathematical computations. Use for academics in Physics, Engineering, Applied mathematics, Statistics & in Data Analytics companies and departments.