Spoken-tutorial Project, IIT Bombay
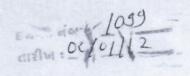## E-Brochure

Name of FOSS	Applications	Commercial equivalent	Employability	Department
Linux-Ubuntu	Virus free, robust, Operating System	Windows	Technician or System administrator for Computer Vendors (SME's), Indian Railways, Municipal Corporations, Air India and many SME's	Computer Science, IT, ECE, Electronics
LibreOffice -	Basic computer usage Office suite for documents, spreadsheets, presentations, database etc.	MS-Office	Administration, Data entry personnel, Travel Agency Assistant, Indian Railways, Municipal corporations, Govt. offices	All the departments including Schools
Writer	Word Processing, Documentation	Word		
Calc	Spreadsheets	Excel		
Impress	Presentations	Powerpoint		
Base	Managing Databases	Access		
Draw	Drawing	Windows-based Visio		
Math	Mathematical Operations	MathType		
PHP&MySQL	Web development and Database Management	.NET	Website Developer in all types of small and large enterprises, popular companies hiring PHP & MySQL trained persons are Air-India, Bridge & Roof Co., Media channels, agencies etc.	Computer Science and IT
C/C++, Java, Netbeans and Python	Programming language		Programmer in SMEs working in C, Java, Netbeans and Python, Lab- Assistant in colleges, Popular companies requiring programmers on C / C++, Java and Python are HCL technologies, Wipro, L&T, TCS	Computer Science and IT
Scilab	Scientific computation package for numerical computations	Matlab	Value addition in technical problem solving via use computational methods for engineering problems, Applicable in Chemical, ECE, Electrical, Electronics, Civil, Mechanical, Mathematics, etc.	Computer science, IT, ECE, Electronics, Mechanical
LaTeX	Document markup language and preparation system for Tex typesetting	MS-Word	Value addition to academic Skills set. Essential for International paper presentation and scientific journals.	All the departments
OpenFOAM	For Fluid Mechanics to solve and create fluid movies	Fluent	Companies like AUDI, Tata Steel, Volkswagen, etc. have started using it. Also Indian Govt. agencies like BARC (Babha Atomic Research Center) are making use of this free software	Mechanical

of FOSS	Applications	Commercial equivalent	Employability	Department
ad - now eSIM	EDA tool for circuit design, simulation, analysis and PCB design. It is an integrated tool built using open source software such as KiCad, Ngspice and Scilab.	Orcad	PCB designer in SME's and academic institutions, Lab assistant for Electronic Circuit Lab, Electronic network designer.	ECE, Electronics, EEE, Electrical
Firefox	Web browser	Internet Explorer	System Administrator and Lab assistant in SME's and academic institutes.	All the departments
GIMP	Image Editing and Graphic Design	Photoshop	Self employed photo editor, editor in photostudios, graphic design job in gift stores, advertising agencies, etc.	Arts and Textile designing, Fashion designing, Architecture
Q-CAD	Basic 2D design and drafting	AutoCAD		
Blender	Animation and Computer Graphics	Maya 3D	Animator in graphic and animation media, film etc. Sectors, such as advertising computer games, TV, education, interiordecoration, etc.	Arts, Design
Ruby	Programming language		Ruby was used to implemented the reactive control part for the Siemens service robot. Ruby Web Dialogs based app to manage and track oncall and on-site support for the IT help desk and IT operations teams.	Simulations, 3D Modeling, Business, Robotics, Networking, System Administration, etc.
Perl	High-level programming language		Perl has been called the system administrator's best friend for its ability to make common tasks easy. Perl's process, file, and text manipulation facilities make it particularly well suited for tasks involving quick prototyping, system utilities, software tools, system management tasks, database access, graphical programming, networking, and web programming.	Web developers, system administrators. Mathematicians, geneticists, journalists, managers, etc.
Jmol Application	Jmol applet is used to explore the structure of molecules. Jmol applet is used to depict X-ray structures.		Jmol returns a 3D representation of a molecule that may be used as a teaching tool, or for research e.g. in chemistry and biochemistry. There is a standalone application and a development tool kit that can be integrated into other Java applications.	Chemistry, Biochemistry
CellDesigner	Software for Planning & Designing Wireless Communication Systems, Modeling tool		CellDesigner has fully implemented the Korowajczuk 3D model, capable of performing simultaneously outdoor and indoor multi-floor predictions.	BioScience and Biotechnology

of FOSS	Applications	Commercial equivalent	Employability	Department
GChemPaint	GChemPaint is an editor for 2D chemical structures with a multiple document interface.		GChemPaint is currently being developed as part of The Chemistry Development Kit, and a Standard Widget Tool kit-based GChemPaint application is being developed, as part of Bioclipse.	School level Chemistry
Inkscape	Graphic Designing	Adobe Illustrator, Coreldraw	Photo editing, Photo Manipulation and Graphic Design	All the departments including Schools
Bash	Bash is a "Unix shell" commandline interface for interacting with the operating system. Bash has the ability to run an entire script of commands, known as a "Bash Shell script" or "Shell script".		Familiarity with GNU/Linux command lines, and familiarity with basic programming concepts is a prerequisite for learning BASH. System administrators will greatly benefit by learning to automate common tasks using BASH.	System Administrators
Ascend	ASCEND is a free, open source, mathematical modelling system.		Its main uses have been in the field of chemical process modelling, with its novel modelling language conventions and powerful solver.	Chemical Engineering
Joomla	Content Management System		To build Website.	All the Departments
Biopython	Tool for Computational Biology and Bioinformatics.		To access online database such as NCBI. It can perform common operations such as transcription, translation, obtain complements, reverse complements, parsing, running BLAST.	Biology, Biochemistry and Dept. of Bioinformatics.
Java Business Application	To create a business application from scratch. Example : Library Management System		To built the business application and provide domain expertise	Computer Science and IT
Kturtle	An educational programming environment which helps in learning how to build logic and how to program, in an easy manner.		Some of its features are : intuitive syntax highlighting, simple error messages, integrated canvas to make drawings on, integrated help function, slowmotion or step execution, and more.	School level
Ktouch	Typing tutor teaches how to type using an online interactive keyboard		Learn typing at your own pace. Gradually increase your typing speed and along with it, your accuracy.	
FrontAccounting	FrontAccounting (FA) is a free and open source accounting software.	Alternative to Tally	FrontAccounting (FA) is a professional web-based Accounting system, written in PHP.	Commerce, Management

of FOSS	Applications	Commercial equivalent	Employability	Department
ogadro	Avogadro is a free and open source, advanced molecule editor and visualizer designed for cross-platform use in computational chemistry, molecular modeling, material science, bioinformatics, etc.	ChemDraw	Academic positions in Chemistry involving teaching as well as R & D.	Chemistry and Bio-Chemistry
Drupal	Drupal is a free and open source content management system (CMS) written in PHP and distributed under the GNU General Public License		Web developer, Web architect, Computer solutions provider, Web technologies, Information systems, Content Managers, Digital solutions.	MCA, MBA, B.Comm., B.Comm. IT, any Engineering dept.
DWSIM	DWSIM is an open-source CAPE-OPEN compliant chemical process simulator. It allows us to conduct experiments and analyze data using advanced models and operations.	ASPEN Plus, CHEMCAD, PRO/II	As engineer in Power, Petrochemicals, Pharmaceutical, Chemical industry.	Chemical Engineering
Open Modelica	OpenModelica is an open source modelling and simulation environment intended for industrial and academic usage.It is an object oriented declarative multi domain modelling Language for complex systems.	Dymola	As engineer in Power, Automotive, Aerospace industry.	Chemical Engineering, Mechanical, Aerospace.
UCSF Chimera	UCSF Chimera is a program for interactive visualization and analysis of molecular structures and related data. Using Chimera, one can generate high-quality images and animations.	ChemDraw	Academic positions in Chemistry involving teaching as well as R&D. Also in chemical industry R&D.	Chemistry
Arduino	Arduino is open-source hardware, open-source software and microcontroller based kit.		Microcontroller and embedded system manufacturing industry, Robotics.	Electrical, Electronics Physics, and Computer Engineering

Eન.. નંબર: 1099
તારીખ: ૦૯/૦૧/૧૭

::કચેરી આદેશ::

IIT Bombay દ્વારા ચલાવવામાં આવતા સ્પોકન ટ્યુટરીયલ પ્રોગ્રામ અંતર્ગત રાજ્યની કોલેજોના વિદ્યાર્થીઓને સ્કીલ ડેવલપમેન્ટનો લાભ મળી શકે તે હેતુસર તમામ કોલેજોને IIT Bombay સાથે રજીસ્ટર થવા તેમજ મહત્તમ વિદ્યાર્થીઓને લાભ આપવા જણાવવામાં આવેલ હતું. અનુભવે જણાયેલ છે કે કોલેજો પુરતા પ્રમાણમાં આ કોર્ષ ચલાવવા માટે IIT Bombay સાથે રજીસ્ટર થયેલ નથી તેમજ જે કોલેજો રજીસ્ટર થયેલ છે તેઓએ મોટા પ્રમાણના વિદ્યાર્થીઓને લાભ મળે તેવા પ્રયત્નો કરેલ નથી. રાજ્યની સરકારી કોલેજોને તેમના જિલ્લાની બિનસરકારી અનુદાનિત તેમજ બિનઅનુદાનિત કોલેજોને સદર પ્રોગ્રામ માટે પ્રોત્સાહિત કરવાની તેમજ પ્રોગ્રામનું મોનીટરીંગ કરવાની બાબત વિચારણા હેઠળ હતી.

આથી સામેલ પત્રક અનુસારની સરકારી કોલેજોને તેમના નામ સામે જણાવેલ જિલ્લા/વિસ્તારની બિનસરકારી અનુદાનિત, સરકારી અને બિન અનુદાનિત કોલેજોમાં IIT Bombay દ્વારા ચલાવવામાં આવતા સ્પોકન ટ્યુટોરીયલ પ્રોગ્રામના અસરકારક અમલીકરણ માટે નોડલ કોલેજ તરીકે નિમણુંક કરવામાં આવે છે. નોડલ કોલેજોએ નીચે મુજબની કામગીરી કરવાની રહેશે.

(૧) પોતાના કાર્યક્ષેત્રની કોલેજોમાં સદર કાર્યક્રમનાં અસરકારક અમલીકરણ માટે યોગ્ય કાર્યવાહી કરવાની રહેશે.

(૨) જ્યારે IIT Bombay દ્વારા માહિતી/તાલીમ માટે મીટીંગ બોલાવવામાં આવે ત્યારે ઉપસ્થિત થવાનું રહેશે.

(૩) પોતાના કાર્યક્ષેત્રની કોલેજોમાં થતી પ્રગતિનો અઠવાડીક અથવા માંગવામાં આવે તે રીતે અહેવાલ સુપ્રત કરવાનો રહેશે.

(૪) પોતાના કાર્યક્ષેત્રની કોલેજોને જરૂર જણાય તો પ્રોગ્રામ બાબતની તાલીમ આપવાની રહેશે.

(૫) પોતાના કાર્યક્ષેત્રની કોલેજોની મુલાકાત સબબ ટી/એ, ડી/એ પોતાની માતૃસંસ્થામાં આકારવાનું રહેશે.

ઉચ્ચ શિક્ષણ કમિશ્નર અને સીઈઓ, કેસીજી

પ્રતિ.

(૧) પત્રક અનુસારની સરકારી કોલેજો તમામ.

(૨) સરકારી/બિન સરકારી અનુદાનિત, બિન અનુદાનિત કોલેજો, તમામ

(૩) Madhukriti Shrivastav ,Project Manager, Spoken Tutorial Project, IIT Bombay.

બિડાણ: ઉપર મુજબ

Knowledge Consortium of Gujarat

Department of Education, Government of Gujarat

To,

Vice Chancellor/ Registrar / Principal
Government University/ Colleges of Gujarat

Subject: Recommending all the Universities and Colleges to start Software Training Certificate Courses from IIT Bombay for the academic year 2017-2018.

Dear Sir/Madam

CHE-Gujarat, instructing all the Universities & colleges to start, Spoken Tutorial Program.

Activities to be completed:

- All Universities must submit nodal officer names and 30 nodal colleges list to KCG-Gujarat. Later do half a day Awareness event, by January 2018.
- All colleges identify Faculty organizer and inform to KCG and IIT Bombay Team for starting training by December 21st, 2017 and make a Departmental Planner to plan the courses. PFA-Sample Departmental Planner.
- All colleges must take the Libre Office(Equivalent to MS Office) to start with as it is easy

This is an NMEICT, MHRD. Govt. of India initiative to enhance IT/Software skill set of our students. The audio video course material and certificates are all completely free of cost. Offered trainings are skill oriented & of academic importance (many of the offerings are part of Lab course) – PFA-Department wise Courses. All the courses can be learned in college campuses. Visit **http://spoken-tutorial.org/**

The appointed **Nodal Officer and Faculty Coordinators** may need to immediately contact the IIT Bombay - Spoken Tutorial Training Coordinator (Gujarat) **Ms. Madhukriti Srivastava** _at_ **madhukriti@gmail.com** (or);7738378229. This is in order to have a smooth start.

Knowledge Consortium of Gujarat

Department of Education, Government of Gujarat

Spoken Tutorial Program Online Process details:

| Register on Spoken Tutorial website : http://spoken-tutorial.org/accounts/register/ |
| Lab ready by course download : http://process.spoken-tutorial.org/images/1/1b/Download-Tutorials.pdf |
| Upload students data: http://process.spoken-tutorial.org/images/f/fe/Master_Batch_upload.pdf |

Spoken Tutorial Courses details as per the Stream:

UG, PG Comp. Sc., IT, BCA, MCA	Java, C, C++, Perl, Python, Scilab,Python,Linux,Java,Neatbeans, Bash,RUBY
MCA, MBA	Scilab, PHPMySQL, Drupal
Physics, Mathematics, Statistics,	Scilab (similar to Matlab)
Chemistry, Bio Sciences	JMol, GChempaint (understand molecules and chemical structures)
Economics, Social Sci, humanities	Linux, LibreOffice (like MS-Office)
Animation and Multimedia	Blender, GIMP, Inkscape, Audacity
PG, PhD students (for their project/ thesis writing work)	LaTex for report writing and Scilab for Statistics, LO Calc, LO Base, for Collection, classification, Tabulation

Thanking You

Sincerely

Prof A. U. Patel   7-12-17

Advisor, KCG

Former Vice Chancellor,
Gujarat University

Copy to:
1. Hon'ble Principal Secretary, Higher and Technical Education
2. Director, Higher Education
3. Coordinator, KCG

Pragna Puram, Opp. PRL., Near L D College of Engineering, Ahmedabad-380 015.

Ph. : 079-26302077 • Fax : 079-26302067 • Website : www.kcg.gujarat.gov.in

FC 101 D Tally Accounting 9.0 ERP

Objectives:

Accounting is of critical importance in the current world in providing information to businesses .This course will enable student to know each and every aspect of the computerized account.

Prerequisites: None

Contents:

a. Fundamentals of Tally Overview of Computerized Accounting System, Benefits of Computerized Accounting, Future of Tally, Features of Tally, Creating Company, Configure Tally.
b. Finalization in Tally Processing Transaction in Tally - Ledgers and Groups & Accounting Vouchers, Generating Printing of Accounting Voucher - Financial Reports in Tally.
c. Purchase & Sales Module in Tally Cash and credit Purchases, Cash and Credit Sales, Purchase Returns, Sales Returns, Bill of exchange, Revenue Recognition Principles, Master Configuration, Voucher Configuration.
d. VAT, TDS & Inventory in Tally Accounting & Inventory Reports in Tally, Accounting Reports, Inventroy Reports, Printing Reports.