Channabasaveshwara Institute of Technology
(Affiliated to VTU, Belgaum & Approved by AICTE, New Delhi)
(**NAAC Accredited &ISO 9001:2015 Certified Institution)**
NH 206 (B.H. Road), Gubbi, Tumkur – 572 216. Karnataka.

BEST PRACTICES

CSE for CIT

An initiative taken by Dr. Shantala C P and Dr. Sridhar K N Rao Faculty involvement beyond their regular teaching Making use of human resources in developing IT based facility which involves in, Administration Services Human Resource Management Infrastructure Management Effective utilization of Open Source Software etc.

CIT Private Cloud:

This Project is to design, develop and maintain a cloud computing setup at CIT, Tumkur, specifically for research in Big-Data. This cloud computing setup, a small-scale cloud, would be realized only by the use of free and open-source software. It will support the various research communities, apart from the Big-Data, such as data-center networking, cloud-security, virtualization, etc. It also provides an excellent opportunity for the researchers and students of CIT, to engage in active and innovative research works. Hence, we envisage the proposed setup to foster research in cloud computing in India in general and in CIT in particular.

Moodle :

Moodle is a course management system (CMS) – a software package designed to help educators create quality online courses and manage learner outcomes. Before you can do anything in Moodle you must create a New Account. By

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default this is done via e-mail confirmation. A message is sent from Moodle after completing the New Account registration form

Faculties are working for the following open source tools:

•OSS for NON-IT department

•IT-Support for NON-IT

•Training

•Project

•Industry Expectation Skill Set Mapping

•Leave Management System- odoo

•HR Management System

•Audit

•Event Processing System for CIT(Big Data & Java)

Faculty members are also working on open source softwares for the following subjects

SLNO	SUBJECT NAME	OPEN SOURCE TOOL
1	ANALOG COMMUNICATION	1. KONEKI 2.Mihini 3.Paho 4.Benjamin Cabé
2	MICROWAVES AND RADAR	tipofthesowrd MSO reagle Theboel hendorog
3	Information theory and coding	simulate SystemVerilog Do circuit simulation, PCB design, Electronic circuit design Design and Simulate complete Analog, Digital and mixed signal designs free Circuit schematic capture and simulation for Mobile and Web. EDA utilities for RTL translation, parsers, integration etc VLSI Layout tool LTSpice
4	DSP	Scilab:

		5TSP S6copeDSP jmathstudio - Java Image/Signal toolkit spdrs960 - Digital Model Train S10ignal Box Exocortex.DSP DSP Lab WSJT BRL-CAD MATLAB +
	SEMESTER VI	
5	Digital Communication	Novius OS
6	Operating System	Linux jsos BareMetal-OS osv freebsd redox
7	MIcroElectronic Circuits	EasyEDA Liquid PCB GarlicSim Micro-Cap, SapWin
8	Antennas and Propagation	gprMax QRadioPredict Arraytool
9	microprocessor	GNU 8085 Simulator 6809 Simulator PUP Microprocessor Simulator mspsim 68HC11 Simulator RexSimulator SC/MP Processor Emulator Em8085 Stack Based Virtual Machine CEDAR
10	satellite communication	OpenSAND SatNOGS Hybrid Simulated-Emulated Platform (HySEP

		AMSAT
11	Computer Communication Network	Netkit Cloonix NetMirage CORE GNS3 (IMUNES) LINE Marionnet Mininet Netkit NS-3 OFNet OpenStack all-in-one Psimulator2 UNetLab and EVE-NG VNX VNUML
12	Optical Fiber Communication	Scilab winlens zemax vob++, vob pro spock oslo six, oslo pro oslo light **Selection and Simulation Tools for Power Modules and Semiconductor Devices**
13	Power Electronics	**Selection and Simulation Tools for Power Modules and Semiconductor Devices** AKM Simulator Clock Tree Expert C-SIM EE-Sim GreenPoint iDesign™ IPOSIM iSim

		TOREXsim **Power Electronics** **Parts and Datasheets** **Locators** Datasheet Archive Datasheet Locator Digi-Key DC-DC Selector Octopart SiliconExpert SourceESB
14	HDL AND EMBEDDED SYSTEM DESIGN	NASM FASM GNU Binutils RTAI SDCC Lcarus Veriwell Ghdl, freehdl Signs Verilator
15	REAL TIME SYSTEMS	FreeRTOS RT-Thread mbed OS NuttX Apache Mynewt Fusion Embedded RTOS Protothreads
16	ANALOG ELECTRONIC CIRCUITS	Electric VSLI Design System SPICE gLogic Logisim Circuits Cloud GNU Circuit Analysis Package Circuit Logix LTSpice MultiSim Circuit Simulator 1.5j Mac Spice 5Spice
17	LOGIC DESIGN	Logic Gate Simulator Multi Media Logic

		Digital Logic Design Johnny Simulator Logisim Logical Simulator 4 Nelson Digital Logic Circuit simulator Digital Circuit Simulator Logic Circuit Designer Simple Logic Simulator Oscilloscope Simulator Film Simulator Line Coding Simulator Digital Signal Analyzer MicroSim SIMAC LDSIM M2M Labs Java Logic Simulator
18	NETWORK ANALYSIS	GraphChi JUNG Graphviz Graph-tool Gephi libSNA MeerKat Netlytic NetworKit NetworkX NodeXL Pajek SocNetV Socioviz
19	FIELD THEORY	SciPy Gnuplot Octave ZeGrapher CoCoA Cadabra

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