



MANGALORE UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE

CSE 515: OPEN SOURCE TECHNOLOGIES

Hours/Week: 4

Credits : 4

I.A. Marks: 30

Exam. Marks: 70

Course Outcomes:

- CO1. Able to recognize the benefits and features of Open Source Technology.
- CO2. Interpret, Contrast and compare open source products among themselves
- CO3. Understand and demonstrate Version Control System along with its commands.

UNIT-I

12 Hrs.

History and Emergence of Open Source Software: The philosophy of OSS, Richard Stallman, The Cathedral and the Bazaar (CatB), commercial software vs OSS, free software vs freeware. Open source development models. Application Programming Interface (API). GNU Project, Free Software Foundation. Community Building: Importance of Communities in Open Source Movement. JBoss Community. Developing blog, group, forum, social network for social purpose.

UNIT-II

12 Hrs.

Open Standards: National Information Standards Organization (NISO), The Digital Library Federation (DLF). The Dublin Core Metadata Initiative. MARC standards, Resource Description and Access (RDA). Open Archives Initiative. OAI-PMH. Search / Retrieval via URL (SRU), SRW/CQL. Java Platform, Enterprise Edition (Java EE).

UNIT-III

12 Hrs.

Open Source Licenses: GNU General Public License (GPL) version 2,3, GNU Lesser General Public License (LGPL) version 2.1,3, GNU Affero General Public License (AGPL) version 3, Apache License, Version 2.0, Artistic License 2.0, etc.
Operating System: The Linux operating system and its use both for desktops and as server software.

UNIT-IV

12 Hrs.

Webserver: Apache HTTP Server and its flavors. WAMP server (Windows, Apache, MySQL, PHP). Open Source MySQL. Apache, MySQL, PHP, JAVA as development platform.

Unit 7: Open Source Software: Category of Open Source Software. OSS for podcasts, RDBMS, online social networks, etc. open source bibliometric software's like pajek, ucinet, etc

REFERENCES:

- 1) <http://directory.fsf.org/GNU/>
- 2) <http://www.diglib.org>
- 3) <http://www.entirelyopensource.com/>
- 4) <http://www.niso.org/>
- 5) The Dublin Core Metadata Initiative <<http://dublincore.org/>>
- 6) MARC standards <<http://www.loc.gov/marc/>>
- 7) Resource Description and Access (RDA) <<http://www.rdaonline.org/>>
- 8) WAMP server (Windows, Apache, MySQL, PHP) <<http://www.wampserver.com/en/>>
- 9) Open Source MySQL <<http://www.mysql.com/>>
- 10) Search / Retrieval via URL (SRU) <<http://www.loc.gov/standards/sru/>>
- 11) <<http://www.loc.gov/standards/>>
- 12) <<http://iesr.ac.uk/use/sru/>>
- 13) <<http://java.sun.com/javaaee/>>
- 14) <<http://www.jboss.org/>>

