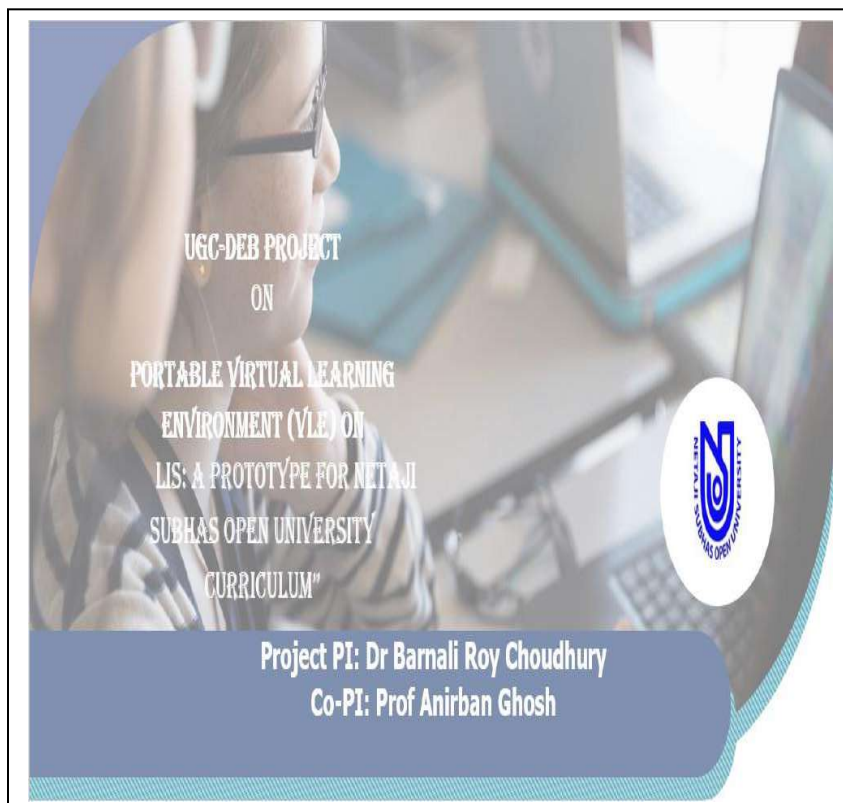


2020

Portable Virtual Learning Environment (VLE) on LIS: A Prototype for Netaji Subhas Open University curriculum



Project Report is prepared by:
Dr Barnali Roy Choudhury

Project PI: Dr Barnali Roy Choudhury
Project Co-PI: Prof Anirban Ghosh
Netaji Subhas Open University

Report on
Project entitled “Portable Virtual Learning Environment (VLE) on LIS: A Prototype for Netaji Subhas Open University curriculum”

Paradigm shift of technology and the entire educational system makes teaching-learning environment robust and creates a new vista by enabling access to information more convenient. It facilitates users of the system, learning resources as well as communications virtually. But due to lack of resources, proper networking facility many students are unable to access the essence of technology oriented education from their native place or any place at any time. In view of this, this project was planned to design and frame a prototype Virtual Learning Environment (VLE) on Library and Information Science (LIS) curriculum specially focused on syllabi of Netaji Subhas Open University (NSOU). Then It was expected that, this platform may facilitate a full-fledged teaching-learning process with course delivery to assessment/gradation for learners. However, teachers also deliver/transmit domain-specific knowledge in forms of lectures, notes, resources (available relevant Open Educational Resources), assignments etc. As well as they might be able to collect assessment to count credits to certify enrolled learners. Learners of this VLE system can access courses, resources, formal communications (Instant messaging, Mails) in a blended scenario and administration.

Virtual Learning Environment is a web based architecture of an educational institution (or within educational institutions) to deliver full course(s) including certification and teaching with communication tools. The Joint Information Systems Committee Managed Learning Environment Steering Group has said (JISC, 2001, para. 2) that VLEs refer to *‘the components in which learners and tutors participate in “online” interactions of various kinds, including online learning’*.

Features of VLEs

- Most important and common features of VLEs are as follows;
- VLE is handling structured information for knowledge transmission by educational interaction and sharing of information along with its source.
- Communication between learners and teachers using tools like email, bulletin boards and chat rooms which support one-to-one, one-to-many and many-to-many communication in a blended (synchronous and asynchronous) scenario;

- Dealing with learning resources in various forms like lecture notes and supporting materials, Web resources, online discussion and assessment activities and formats like word, pdf, html, audio-video, web-links etc.
- Online Self-assessment and grading is possible through multiple-choice assessment with automated marking on the spot;
- Students Support in terms of Frequently Asked Questions (FAQs), Wikis may improve the quality of education.
- Controlled access of administration to manage and track enrolled students by providing username and password within the VLE.

Meet the Objective of the Project

This off-the-self product is developed for the following goal:

- To design and develop an integrated environment for technical and pedagogical support;
- To use Open Source Software and Open Standard;
- To develop collaborative and participative prototype Virtual Learning Environment on LIS curriculum (NSOU) by using MOODLE to support community communication and interaction in addition to existing teaching-learning system.
- To identify, organize and use available domain-specific Open Educational Resources along with present syllabi of LIS, NSOU as material of courses within the VLE
- To use of online evaluation system.
- To develop an off-the shelf (ready-to- use) software solution pack incorporating the above-mentioned features.

Implication of VLE on LIS education

Netaji Subhas Open University cater education in an open and distance learning environment where teachers and students are separate by time and places. This university is also promoting the equivalence of educational opportunities and equality among learners who are not able to enroll in traditional classroom-based learning due to their personal, social and economic circumstances. In such situation delivery of curriculum base-knowledge are highly effective and efficient by using virtual learning environment. In India LIS education is now in the limelight because of National Knowledge Commission's recommendation on Libraries. Generally, Library and Information Science is pretty charming knowledge field which promotes education by retrieving, disseminating knowledge/information collaboratively. So far this project is giving special emphasis on LIS curricula to unwrap a new vista for a dynamic and cost effective teaching learning system.

Implementation plan for formation of prototype VLE on LIS syllabi of NSOU

Library & Information Science curriculum of Netaji Subhas Open University is structured for improvement and upgradation of students relating to subject matter. Materials are accompanied by related OER by following new curriculum to ensure its uniformity and compatibility with OER standards. It is very much interesting to frame a prototype VLE for LIS curriculum for the greater interest of educational system. As Library and Information Science has an updated course curriculum and modern educational amenities it is quite interesting to accomplish this project.

Proposed content Library and Information Science, NSOU to be uploaded for VLE interface

BLIS	MLIS
Paper - I : Library and Society	Paper 1–Information, Communication and Society)
Paper-II : Library Management	Paper 2–Information Sources, Systems and Services
Paper-III : Library Classification Theory	Paper 3 –Information Processing and Retrieval (Theory)
Paper-IV : Library Cataloguing	Paper 4–Information Institutions, Products and Services
Paper-V : Reference and Information Services	Paper 5–Management of library and Information Centres
Paper VI : Classification Practice	Paper 6–InformationTechnology:
Paper VII : Cataloguing Practice	Paper 7–Dissertation
Paper VIII : Computer Basics and Application	E1: Preservation and Conservation of Library Materials E2: Research Methodology E3: Academic Library System E3: Public Library System

Content uploaded on the basis of updated revised syllabus as follows:

BLIS	MLIS
Paper - I : Library and Society	Paper 1–Information, Communication and Society)
Paper-II : Library Management	Paper 2–Information Sources, Systems and Services
Paper-III : Library Classification Theory	Paper 3 –Information Processing and Retrieval (Theory)
Paper-IV : Library Cataloguing	Paper 4–Information Institutions, Products and Services
Paper-V : Reference and Information Services	Paper 5–Management of library and Information Centres
Paper VI : Classification Practice	Paper 6–InformationTechnology:
Paper VII : Cataloguing Practice	Paper 7–Dissertation
Paper VIII : Computer Basics and Application	Paper 8: E1: Preservation and Conservation of Library Materials E2: Academic Library System E3: Public Library System
	Paper 9: Dissertation (Manual)

Software Architecture used to develop off-the-self VLE:

To design Virtual learning environment by using Moodle, it requires:

- **Operating System:** Linux (Here Ubuntu 20.04)
- **Web Server:** Apache (2)
MySQL (SOL YOG community 7.3)
- **Database Management Systems:** 7.3)
- **Programming Language:** PHP (5.X)
- **Education based software:** Moodle (3.11)

Installation and configuration of Apache, MySQL, PHP on Linux platform was the main challenge at the very initial stages. Database creation, and setting of user permission are

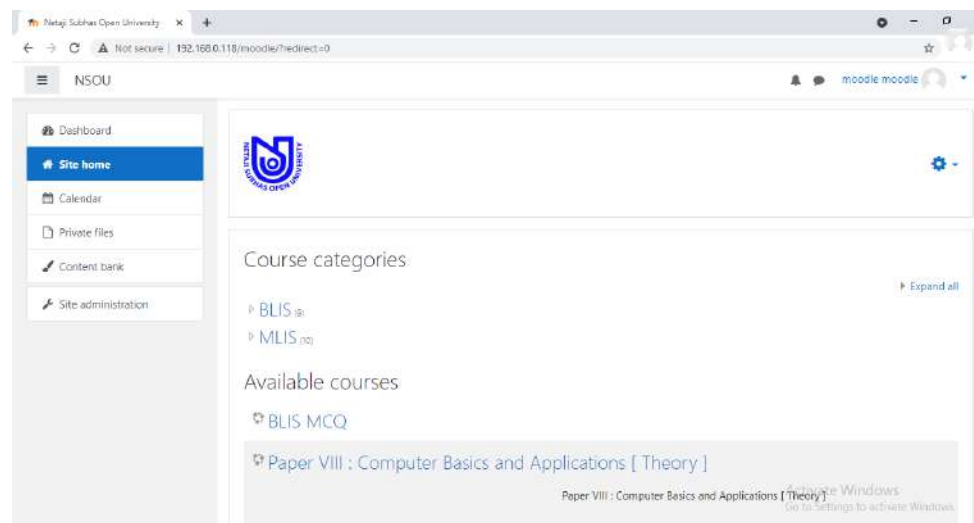
two important issues in this regard. This project satisfactorily seted all required platform for smooth functioning of the program.

Moodle uses a number of interfaces in its administrative front page. It also includes a good number of blocks, site news etc. in its own server. Administrational front page is showing a bunch of blocks like site news, course structures etc.

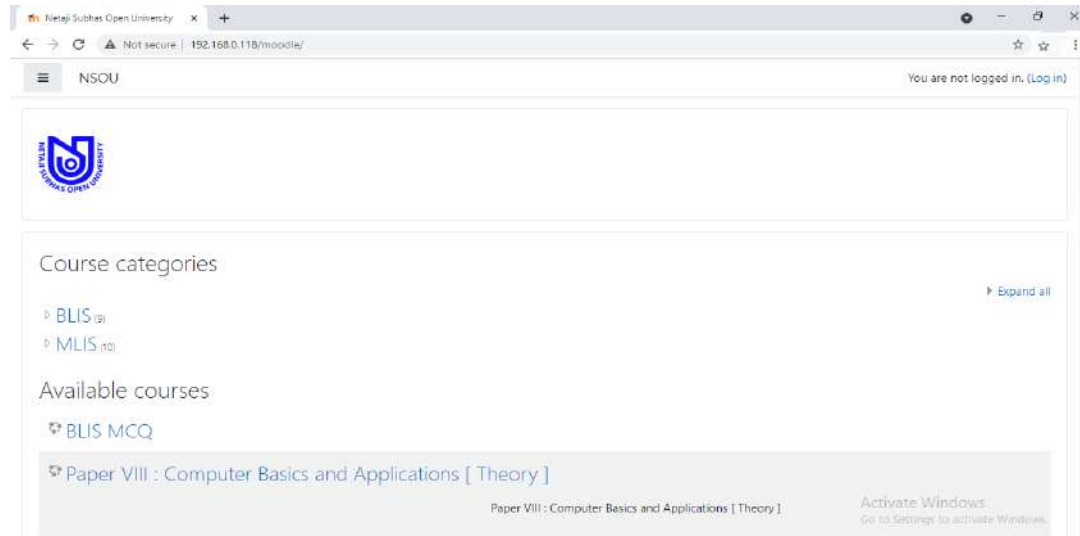


Meet the Project outcome:

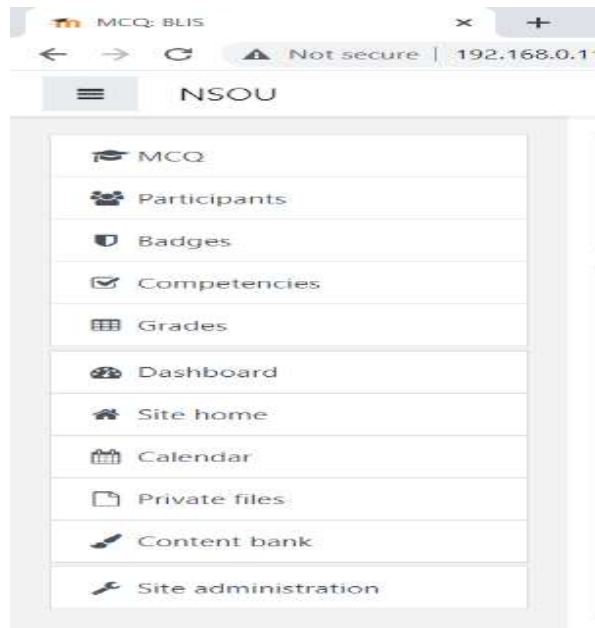
- Interactive, collaborative and participative prototype Virtual Learning Environment on LIS curriculum (NSOU) in addition to existing teaching-learning system.



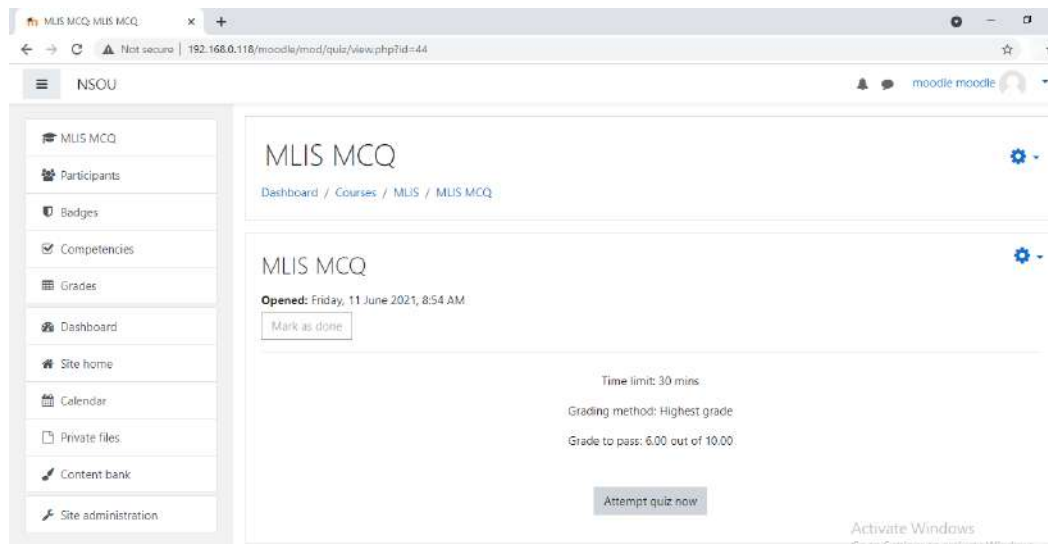
- Identification, organization and use of available domain-specific Open Educational Resources along with present syllabi of LIS, NSOU as material of courses within the VLE



- Use of online learning services.



Use of online evaluation system



An off-the shelf (ready-to- use) software solution pack for distance student who is not able to access online platform.

**UGC-DEB PROJECT
ON
PORTABLE VIRTUAL LEARNING
ENVIRONMENT (VLE) ON
LIS: A PROTOTYPE FOR NETAJI
SUBHAS OPEN UNIVERSITY
CURRICULUM"**

**Project PI: Dr Barnali Roy Choudhury
Co-PI: Prof Anirban Ghosh**



