

LINUX BASED GENERALIZED AUTOMATED ENROLLMENT IN MOODLE
AND A FRAMEWORK TO OVERCOME CHALLENGES FACED BY
UNIVERSITIES IN ADOPTING ONLINE TOOLS

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Declaration

We declare that this thesis is our own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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Name of Student

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Date:

Devotion

Number of people are around me and without whom this MSc program and thesis could have not been accomplished, and to whom I am ever grateful. It's none other personals than my mother and father, who continues to be source of encouragement and inspiration to me throughout my life. And to my beloved siblings, brother and sister and their family members.

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Abstract

The mechanism of adding students to a Moodle courses is called Enrolment. There are various Moodle auto enrolment plugins are available and Moodle administrator yet has to install and configure the plugin accordingly to allow students to enroll for modules. Available auto enrolment plugins only work for student's role and furthermore there is no restriction/authorization mechanism to allow students that they can only enroll for defined set of modules. Further, some plugins are only working with a particular Moodle version only.

This Proposed solution is to fulfill a burning question of educational institutes and its Moodle administrators', to enroll students only to their registered modules automatically without extra effort and time waste.

The research component of this document includes a qualitative study to a research problem emerged as; "while Sri Lankan universities use some online tools; they do not seem to get the maximum gain out of these tools due to numerous challenges. Moreover, there is no model developed with respect to Sri Lankan university context to provide necessary guidelines to overcome these challenges."

Based on the above research problem, the research was conducted with the objective of exploring challenges faced by universities in adopting online tools. Research uses the case study methodology by Yin^[54], with a single case. The university which is described as "XYZ university" is selected as the case and which offers Computing, Business and Law degrees affiliated with a university in United Kingdom. The research included an academic population of 32 academic staff members and a student sample of 260.

Research recommends numerous strategies in terms of a framework for the XYZ university as to overcome these challenges. Use of interactive presentations/slides, implementing specific tools for challenging modules, implementing an interactive portal to unite academics and students, conducting well-structured training and IT infrastructure perfections are the main recommendations.

The framework also promotes general recommendations for the XYZ university to further grasp of the advantages of online tools. Implementing measures to ensure social-interaction of students and academics, implementing a suitable strategy to select online tools for the university and ensuring mental wellbeing of students and academics are as the general recommendations.

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List of Abbreviations

APIIT - Asia Pacific Institute of Information Technology

AI – Artificial Intelligence

BI - Behavioral Intention

BBB – Big Blue Button

CALL - Computer Assisted Language Learning

CeL - Collaborative e-Learning

CoPs - Community of Practice

Covid-19 - 2019 novel coronavirus

EFL - English as a Foreign Language

E-learning - Electronic learning

GPA - Grade Point Average

HND - Higher National Diploma

HCI - Human Computer Interaction

IDE - Integrated Development Environment

IT - Information Technology

LAN - Local Area Network

LMS - Learning Management System

MOODLE - Modular object-oriented dynamic learning environment

MS Teams - Microsoft Teams

NIBM - National Institute of Business Management

NLP – Natural Language Processing

OER - Open Educational Resources

PG – Post Graduate

PDF - Portable Document Format

SLIIT - Sri Lanka Institute of Information Technology

SPSS - Statistical Package for the Social Sciences

TAM - Technology Acceptance Model

UG – Under Graduate

UGC - University Grants Commission

UK – United Kingdom

UOM – University of Moratuwa

VM – Virtual Machine