

## Adaptive design model on heterogeneous Learning Management System (LMS) by utilizing Multi-Agent System (MAS)

### ABSTRACT

Content synchronization in LMS(Learning Management System) is a new area of research which involves the transfer of data from one machine to another. Many researchers have conducted their researches concerning synchronization in different applications on data transfer. Therefore, in this paper we introduce a new idea of synchronization in heterogeneous LMSs and to share learning contents among different learning institutions. The major contribution in this paper, is based on the integration of rsync with MAS (Multi-Agent System) in heterogeneous learning management systems (LMSs) environment using SCORM (Sharable Content Object Reference Model), so as different learning institutions in higher education (HE) can seamlessly share learning contents in the different LMSs. Hence, a new model of heterogeneous LMS(HLMS) has been presented for easily sharing of learning contents in Higher Learning Institutions (HLI).

**Keyword:** Heterogeneous LMS; Interoperability; Multi-agent System; Synchronization; SCORM