

ESOA: A WEB-BASED EXPERT SYSTEM FOR ONLINE ASSESSMENT: PROTOTYPE DESIGN AND IMPLEMENTATION

RIDIP DEV CHOUDHURY¹, KHURSHID ALAM BORBORA² & SHIKHAR KUMAR SARMA³

^{1,2}Assistant Professor (Computer Science), Institute of Distance and Open Learning, Gauhati University, Assam, India

³Professor & HOD, Department of Information Technology, Gauhati University, Assam, India

ABSTRACT

Evaluating the student's knowledge in a particular topic in a subject online is a new research topic. Over the past few years, different techniques have been implemented by the researchers in the student assessment system. Computer Based Testing (CBT), Computer Adaptive Testing (CAT), Item Response Theory (IRT) are some assessment techniques of student learning. But a very few literatures are found with application of expert system in online assessment. In this research, a prototype web based expert system named ESOA for assessing student learning is designed and developed. The system is designed using J2EE framework with MVC paradigm. This paper is concerned with the design and implementation of the ESOA that incorporate questions with varying complexity and serve as the assessment tool to track student understanding of the classroom material.

KEYWORDS: CBT, CAT, IRT, Expert System, Web Based Expert System, Online Assessment, JESS