

# Intelligent Agents for Knowledge Discovery in Semantic Web

C.J. Pannila<sup>1</sup>, Mr. B.L.D. Senevirathna<sup>2</sup>

Faculty of Information Technology, University of Moratuwa, Sri Lanka

chinthanapannila@gmail.com<sup>1</sup>, leelangas@uom.lk<sup>2</sup>

Abstract – With the millions of web pages in the Internet it has become a tiresome process to find the most correct knowledge for its users. Even the normal search engines provide search results of thousands of URLs which has to be manually filtered by users after going through the contents. The main issue focused in this project is how to automate the process of finding the knowledge using the semantic web technology, and how to present them to the user, according to the cognitive features of a person. The aim of this project is to develop a system which automates the process of knowledge discovery from World Wide Web according to the features of the users involved, with the use of agent technology, multi agent technology or swarm intelligence and Semantic Web technology.

The proposed solution is mainly a web based application. The software consists of several modules. The core functionality of discovering the knowledge and presenting the knowledge to the users is done by several agents who interact with each other. This system comes as a supporting system to the main application which is called as Organic Building where emulation of social groups is implemented. For the scope of this project only the university students and lecturers are considered as the users of this system. All the individuals are represented using personal agents in the system. Finding of information and the representation of the results would be according to the cognitive features of the human involved.