

**Oral presentation: 265**

## **An expert system for legal counselling in Sri Lanka**

D. M. L. M. Dissanayake<sup>1\*</sup> and R. A. C. P. Rajapakse<sup>2</sup>

<sup>1</sup>Department of Statistics & Computer Science, Faculty of Science, University of Kelaniya, Sri Lanka

<sup>2</sup> Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka

\*lalanimaheshika234@gmail.com

According to the Human Right Commission of Sri Lanka (HRCSL) publications and their reports, lack of knowledge is the severe problem in Sri Lankan legal system. In addition to this the major reason, lack of resources, lack of awareness raising program on legal matters, lack of confidence of public on presenting their legal problems are some minor reasons. Due to these problems, most of the Sri Lankans face many legal troubles in their day today life. They do not have clear understanding about their legal matters. To reduce these legal problems, they need to have a proper and efficient legal counseling service of an expert legal officer or an expert lawyer. Legal Aid Commission (LAC) is the main legal counselling provider in Sri Lanka. LAC has expert Legal officers to provide these services. However, the commission has limited number of resources. Every counsellor has a huge work load. In addition to the LAC, Institution of human rights and National Child Protection Authority also provide legal counselling. Although there are many legal counselling institutions in Sri Lanka, a decrease of legal problems cannot be observed. Due to these problems, there is an urgent need to develop a legal expert system for the people to get advised for their legal troubles. An expert system is a computer system which is having an ability to reproduction of logical decision-making process of human experts. It consists of a knowledge base and an inference engine. The goal of this study is to develop a software system to assist the preliminary counselling process. It will provide a primary solution to start their solving process of legal problems. This context considers only about the children's and the women's rights violations. Extracting the knowledge of the experts in relevant field by observing their counselling process is the first step for achieving this target. Main purpose is to identify the conditions that experts mainly consider when solving legal problems. On the knowledge of legal counselling experts, a rule-based engine has been implemented. For this purpose, information about the selected scenarios are represented by a series of if-then statements. Developing an expert system with a web interface is then carried out. Finally, it is to get the expert users' feedback to arrive conclusion. Using this system end users can get guidance to their legal problem by selecting one or more answers from a list or by entering data. The developed software system will contribute to increase the legal awareness of the Sri Lankan people by providing a primary solution to their legal matters.

**Keywords:** Children's and women's rights, expert system, legal counseling