E1-18 An Intelligent system for co-ordinator decision support

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An intelligent decision support system is designed to facilitate the activities of co-ordinators in the Open University of Sri Lanka. Co-ordinators' decisions are generally based on dynamic and even on incomplete information. Therefore it is proposed to exploit expert system/knowledge based system techniques in Artificial Intelligence. The system is designed to work on incomplete knowledge and has the ability to learn new information and also handle uncertainties of an answer.

Uncertainty of answers are computed using Basin theory in Statistics. More importantly the proposed system is designed to use *heuristics* to solve problems as when ordinary human solves a problem. For example, system can guide on getting eligibility for a given course. It may also guide the selection of a number of feasible credits for a particular academic year. These decisions are based on experiences and heuristics of counsellors and co-ordinators. Our system is capable of dealing with such tacit forms of knowledge dynamically. That means there is no need to have a pre-stored set of such information. They are requested, when they are needed. Further the system can explain *how* and *why* a particular answer is arrived at, to a given question. The explanations are based on deductive reasoning. Since the system interactively asks for additional information when required, it eliminates the problem of keeping unnecessary information in the system. Once a particular session is finished the system retracts all unnecessary information. The proposed system currently runs on a PC with Unix operating system. It is implemented using XPCE/Prolog. In the immediate future, the system can be accessed by authorised people through campus-wide network in the university.