E1-17 Design of an expert system on top of a database

Chandrika Perera, Asoka S Karunananda, G Rzevski
Open University of Sri Lanka, Nawala, Nugegoda

The Knowledge Based System (KBS) technology in Artificial Intelligence has emerged as a new approach to information processing. Compared with the classical database system KBS technology suggests to distinguish between knowledge and exploring knowledge as 2 independent modules. That means knowledge is stored in a module called *knowledge base* and exploring mechanism in an *inference engine*. We propose to convert an ordinary database to an expert system/KBS. The system is designed to convert information stored in a database to knowledge base of an expert system. For example, the system has ability to convert Informix or Lotus 123 databases to a knowledge base following a suitable mechanism for knowledge representation. With its static structure of databases it is easy to convert database information into simple rules. Thus a rule-based expert system is designed. However, since expert systems have ability to cope with dynamically changing information the system will also deal with dynamic information. Compared with the database on which the expert system is developed, the expert system has ability to deal also with incomplete knowledge by handling uncertainty.