In this thesis, we have presented two efficient approach for mining of relational patterns from the multi-relational datasets. Two novel techniques established to extract the multi-relational patterns with the help of relational tree and a tree pattern-mining algorithm. At first, multiple format attributes from the multi-relational database transformed into single format by applying preprocessing phase. Consequently, the target table chosen from the multiple tables that contains of more number of foreign keys, the target table also employed for discovering the root node of the relational tree. In the relational tree, structure built for single relation and multiple relations using Relational Algebra Tree and Tuple ID propagation for two proposed methodologies. Then effective relational tree mining algorithm applied to mine the important relations from the relational tree. The investigation procedure carried out for the real world dataset of patient medical dataset and the performance study of the proposed methodologies estimated by the assessment metrics like number of relation patterns in each length by fluctuating the threshold values and size of the database, running time and memory usage. The result certifies
that the developed methodologies efficiently determine the relational patterns in the multi-relational database.