

# Abstract

**Yasser El Sonbaty**

## **multiway decision tree induction using projectionmerging (mpeg)**

decision trees are one of the most popular commonly used classification models. many algorithms have been designed to build decision trees in the last twenty years. these algorithms are categorized into two groups according to the type of the trees they build, binary multiway trees. in this paper, a new algorithm, mpeg, is designed to build multiway trees. mpeg uses dbms indices optimized query to access the dataset it works on, hence it has few memory requirements no restrictions on sizes of datasets. projection of examples over attribute values, merging of generated partitions using class values, applying gini index to among different attributes finally post pruning using ebp method, are the basic steps of mpeg. the trees built by mpeg have the advantages of binary trees as being accurate, small in size the advantages of multiway trees as being compact easy to be comprehended by humans