**Abstract**

This paper illustrates the concept of clustering and classification technique to identify important criteria for the infertility couples to find the success rate of In-vitro Fertilization treatment. A FOIL algorithm, First creates the construction of minimum spanning tree after that the partition the data into each tree by clustering the similar features. Selected features are represented into clusters. At last feature interaction is done by combining the features appeared in the previous circumstances of all FOIL rules, which will achieve a candidate feature subset to avoid redundant features and reserves interactive ones. Thus, the proposed paper will determine the accuracy and efficiency of IVF treatment using R programming.