Title of thesis	**:** ***Hybrid Approach for Knowledge Discovery in Medical Datasets***
Name of Scholar	**: Aankita Kaur**
Name of Supervisor	**: Prof. Naseem Ahmad**
Name of Co-Supervisor	**: Dr. Mansaf Alam**
Department	**: Mathematics**
Faculty	**: Natural Sciences**
Keywords	**:** *Data Mining, Hybrid Intelligent System, Knowledge discovery databases (KDD), Neural Network, and Bayesian Network*

ABSTRACT:

Medical databases are characterized by large number of records and large number of attributes. The growth of medical datasets necessitates new approaches to data analysis. Medical databases, if created properly, will be massive and multidimensional.

Knowledge discovery in databases (KDD) is an innovative approach to analyze large datasets comprehensively in an automatic and semi automatic manner. Among KDD techniques, Bayesian networks, association mining and neural network have emerged as important methods for discovering association or patterns segmentation or clustering of records and creation of

predictive models. Each of these methods has its respective strengths and weaknesses. Bayesian network is a fundamental technique for handling uncertainty in complex domain. Neural networks are designed to mimic the parallel processing ability of human brain but they do not readily provide an explanation to their prediction.

Healthcare enterprise can be regarded as data rich but knowledge poor. Moreover Knowledge of any healthcare organization is confined to only few experts who acquired it through experiences in day to day medical practices.

It is proposed to combine the some of the data mining techniques using experience of domain experts for creation and mining of healthcare database.

The purpose of using a hybrid approach in the increased computing power and technology is to combine the advantages of one or more intelligent techniques while overcoming the weaknesses of the other techniques for management of medical dataset.