Chapter 6

CONCLUSION & FUTURE WORK

The term semantic web implies a web that can process information for both humans and machines in such a way that a machine can interpret and exchange the information on web without human interruption and produces more relevant data. It talks about making machine more efficient such that it can realize the sense of words, can easily relate to user query, change the web services and produces information more close to the subject at ease of surfing.

Sentences are based on grammar or we can say that each sentence has a particular syntax. Human brain has the power to understand the meaning of words, relate them based on their experiences, and long term memory. The major research challenge is to make machines understand the meaning. Semantic web addresses the above stated challenge by describing the things in a way that computer applications & web services can understand them. It is beyond linear or multi-layer presentation of information. It is not about links between web pages, it describes the relationships between objects and their properties. Semantic web brings the idea of structuring information available across the web in a meaningful way improving search mechanisms and thus resulting in user satisfaction.

Semantic web originally aimed towards a system that could enable machine to understand and process complex human requests based on their meaning. But today semantic web has a vision of information that can read user queries and interpret them through machines so that machines can perform more tedious jobs involving finding,
combining and acting as per information on the web. The rapid growth in the amount of data on the web is forcing researchers to focus more on creation and dissemination of information, which will become much easier with the innovative concept of introducing ants in semantic web technology to facilitate automated and efficient processing.

This work presented a blueprint of ant-based control of semantic web where ants are hypothetical sophisticated agents that carry information and moreover have the tendency of learning through experiences. Semantic web along with ants creates an environment that can achieve the vision of making node able to understand, relate and use information available in a given situation. Incorporation of ants based framework in semantic web provides much faster and more relevant search results.