

Summary

- High throughput applications are changing the way of Biological analysis
- Use of computers are becoming essential for biological data analysis
- Biological data are multi-parametric and often the interlaying rules are unknown
- Machine Learning can be effectively used for Biological data analysis, prediction and modelling
- Essential genes are the ones responsible for growth of an organism to a fertile adult
- Artificial neural networks have been used here as a classifier.
- The biological parameters considered include Biological network topological features of PPI network, codon usage bias, rare codon analysis, disorderness of proteins, peptide length, strand bias, protein abundance, gene expression level complex number
- The overall accuracy of the machine learning framework used here with ten-fold cross validation is 72.5%.
- Lift chart shows high predictability of the model