Abstract

In this paper, a survey-based study has been done to analyze the cyber security vulnerability of higher education institutions to identify the areas that are more prone to cyber threats at different user levels (System Administrator and Students & Faculty). One of the major elements of data mining- prediction of Missing Values has been amalgamated with vulnerability analysis of academic institutes to improve their practices and compliance of information security. These predictions help in identifying associations and handling missing data due to lack of awareness among users for more effective vulnerability analysis of the cyber security in academic environments. Subsequently, it will lead to formation of essential security guidelines that institutes can adopt to avoid above mentioned risks. Two theories have been proposed to identify the cyber vulnerabilities based on Questionnaire filled by different user levels. Prediction of missing values has also been evaluated after pre-processing and tried to filled the blank entities in the Questionnaire. The result shows that, after the prediction of missing values there is still significant number of students and faculty who are confused about the HR Policies of their institutes making their information security vulnerable. Hence guidelines to mitigate
vulnerability issues have been proposed in this research work.

References

2. “Criminals target school data: top 10 security measures for educational institutions” [Online]. Available:


Index Terms

Computer Science  Information Sciences

Keywords