Abstract

Phishing techniques have not only grown in number, but also in sophistication. Phishers might have a lot of approaches and tactics to conduct a well-designed phishing attack. The on-line banking consumers and payment service providers, those are the main targets of the phishing attacks, are facing substantial financial loss and lack of trust in Internet-based services. In order to overcome these, there is an urgent need to find solutions to combat phishing attacks. Detecting the phishing website is a complex task which requires significant expert knowledge and experience. So far, various solutions have been proposed and developed to address these problems. Most of these approaches are not able to make a decision dynamically on whether the site is in fact phished, giving rise to a large number of false responses. This is mainly due to limitation of the previously proposed approaches, for example depending only on fixed black and white listing database, missing of human intelligence and experts, poor scalability and their timeliness. In this research the application of an intelligent fuzzy-based classification system for e-banking phishing website detection is investigated and developed. The main aim of the proposed system is to provide protection to the users from phisher’s deception tricks, giving
them the ability to detect the legitimacy of the websites. The proposed intelligent phishing
detection system employed Fuzzy Logic (FL) model with association classification mining
algorithms. The approach combined the capabilities of fuzzy reasoning in measuring imprecise
and dynamic phishing features, with the capability to classify the phishing fuzzy rules.

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Index Terms

Computer Science                           Artificial Intelligence

Keywords

Phishing; e-banking; fuzzy logic; association; classification; machine- learning; internet security;
data mining.