Editor's Introduction

In this MISR issue, we are delighted to present four research papers. The summary of the four papers is as follows.

S. Raj Anand and E. Kannan in their paper "Probabilistic Approach of Improved Binary PSO Algorithm Using Mobile Sink Nodes" show that in Wireless Sensor Network (WSN) applications for efficient data accumulation, the use of mobile sinks plays a very important part. In sensor networks that make use of existing key pre distribution schemes of pairwise key establishment and authentication between sensor nodes and mobile sinks, the use of mobile sinks of data collection elevates a new security challenge. Improved Binary Particle Swarm Optimization algorithm (IBPSO) has been used to find the exact location of a three-way process such as sink, distribution of frequency, and localization. The Orthogonal Frequency Division Multiple Access (OFDMA) technique is used to identify the frequency in the communication channel for finding the exact frequency. The existing multiple access techniques have not been used to combine the three-way process such as sink the node, frequency, and positions for utilizing the efficiency of energy in the particular positions to transfer a packet. The proposed research is used to implement the IBPSO algorithm with OFDMA techniques for utilizing exact bandwidth to perform the energy level at the scheduled time. The experimental results have been implemented in the mathematical approach of Polynomial pool based scheme for finding the regions. In the region, the normal distribution procedure has measured optimally to produce the Quality of Service (QoS) for accessing the better outcome of bandwidth and it provides an easy way to access mechanism with higher energy efficiency.

Prasad Deshpande and Mark Stamp in their paper "Metamorphic Malware Detection Using Function Call Graph Analysis" state that previous work has shown that well-designed metamorphic malware can evade many commonly-used malware detection techniques, including signature scanning. In the paper, they consider a previously developed score which is based on function call graph analysis. They test the score on challenging classes of metamorphic malware and they show that the resulting detection rates yield an improvement over other comparable techniques. These results indicate that the function call graph score is among the stronger malware scores developed to date.

Rajeev Singh and Teek P. Sharma in their paper "Secure WLAN Handoff Scheme with Continuous Authentication" explore that Handoffs are essential for providing continuous mobility to a wireless Station (STA) in an Enterprise LAN. An important requirement of the handoff is to establish connection of the roaming STA with a new Access Point (AP) securely and quickly such that the undergoing communication remains unaffected. They propose a novel handoff scheme for enhancing the handoff performance and security. The scheme is a lightweight and reactive method for transferring the keying material i.e., STA context to new AP. Scheme utilizes Key Hiding Communication (KHC) scheme for ongoing data communication between STA and AP. It provides continuous authentication between STA and APs. Computation and communication cost for the handoff process are calculated and security analysis is done. A comparison with other handoff schemes is also provided.

Steven John Simon and Carol J. Cagle in their paper "An Analysis of Trust, Distrust, and Their Antecedents: Development of a Comprehensive Model of Consumer Intentions in Technology-Driven Transactions" argue that data breaches -- security incidents -- have become an everyday occurrence with hundreds of millions consumers having their lost personal identification information (PII), had their credit and debit card numbers stolen, and their credit compromised. Despite the risk, consumers continuously swipe their cards and share their personal information regularly. The study examines the impacts of trust and distrust on consumer intentions in the environment. More than 1,700 consumers involved in technology-driven transactions comprise the data sample. Trust, distrust, and their antecedents are investigated to determine (1) if trust and distrust are truly two distinct constructs, (2) if the two constructs have unique antecedents, and (3) their impacts on consumer intentions toward transactions. The study expands the literature treating trust and distrust as distinct yet inter-related constructs and by introducing new antecedents. Their findings suggest that trust and distrust are not the same construct and impact consumer intentions to transact.

As the final note, we would like to thank all the authors and reviewers for their collaborative efforts to make this issue possible. It is our sincere wish that this journal become an attractive knowledge exchange platform among information systems researchers. Last but not least, to our loyal readers around the world, we hope you find the contents of the papers useful to your work or research.

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