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• The Fourth International Conference on the Networked Digital Technologies (NDT 2012)
• The Fifth International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2012)
Editorial

This issue consists of a few very interesting as well as innovative papers. We are pleased to bring such a set of new breed of papers.

The Distributed Artificial Intelligence (DAI) coupled with the Computational Simulation domain form the Multiagent-based simulations. Computer simulations have potential applications in crowd management. One such interesting simulation system is identified and investigated by Terry L. Ruas, Maria das Graças B. Marietto, Robson dos S. França and André Filipe de M. Batista in their paper on “A Model for Fire Spreading by Multi-Agent Systems: A RoboCup Rescue Simulation and Swarm Platform Approach”. They have analyzed the Rescue Environment tools for simulations based on the fire-spread phenomenon. They have utilized two simulation tools: the Agent Simulation and the Swarm platform. With the help of the proposed simulations, they have indicated that their RoboCup Rescue environment is domain dependent, which can focus on simulations of disaster situations.

Security extensions can be provided to delimit the participation in a specific ad-hoc network by developing the protocols as Espen Grannes Graarud, Anne Gabrielle Bowitzzy, Lawrie Brownz and Martin Gilje Jaatun view in their paper on “A New Dawn for the Dark Knight: Securing BATMAN”. They have identified the shortcomings in the earlier network protocols and hence they offset such limitations in their BATMAN which can prevent unauthorized nodes from influencing network routing. Their prototype implementation and ns-3 simulation results lead to the birth of newer options.

Particle Swarm Optimizer (PSO) algorithms have been proposed increasingly in the recent years and one such new optimizer is called as MHPSO. The mutation concept is added in the Hierarchical Particle Swarm Optimizer (HPSO). The MHPSO is a composition of MPSO and HPSO which work at the same time in the optimization process. Besides the above, the authors BafrinZarei, Reza Ghanbarzadeh and Kiarash Shakibaeh in their paper on “MHPSO: A New Method to Enhance the Particle Swarm Optimizer” have analyzed a few benchmark examples using MHPSO. They have experimented the method and also compared with other procedures and found that their method illustrates better outcomes and high performance of MHPSO.

In manufacturing systems where data integration, distributed environment and centralized management are in use, cyber attacks and the inherent security events of the Internet computer systems are tend to enter. Elvis Pontes, Anderson A. A. Silva, Adilson E. Guelfi and Sérgio T. Kofuji in their paper on “Security in Cloud Manufacturing: Forecasting and Multi-correlation Techniques for Dealing with Cyber attacks” proposed a Two Stage System for dealing with cyber attacks. The use of Event Analysis System and application of forecasting techniques allow conclusion about the enhancement of the accuracy regarding forecasts of cyber attacks.

In the final paper on “Behavior of the Coordinate Ratios of the Intrusion Parameters” the authors Besma Othmani, Mohsen Machhout, Houcine Mejri, Hafedh Belmabrouk and Rached Tourki investigated the equatorial cloning by means of coordinate ratios in the Bloch sphere. They focused to study the behaviour of these ratios as a function of the intrusion parameters. The coordinate ratios they proposed can provide further information on the degree of intrusion.

This issue has opened avenues for newer research by accelerating the speed of innovation in Security Research.

Editors