Editorial: Information and Systems Security

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Attacks involving unauthorized access and modification of systems resources pose serious threats in modern computing environments. It is essential to develop novel and practical techniques to counter such threats. This special issue features four original papers focusing on various aspects of security issues. Each paper was reviewed by at least two experts in security and some of the papers underwent two rounds of reviews.

Paper "Enhanced Source Location Privacy Based on Random Perturbations for Wireless Sensor Networks" proposes two perturbation schemes, one based on Uniform Distribution and the other based on Gaussian Distribution, to protect location privacy of sensors in wireless sensor networks.

Paper "Predicting Network Security Situation Based on A Combination Model of Multiple Neural Networks" proposes to use a combination of Backward Propagation, Elman, and Radial Basis Function neural networks to predict security situations in computer networks. The paper shows that using these three types of networks together results in more accurate predictions than using any of them alone.

Boolean functions play an important role in symmetric cryptographic systems. Paper "On the Nonlinearity and Correlation Immunity of Two Classes of Boolean Functions" studies the correlation immunity and nonlinearity of 2k-variable Boolean functions and proposes two sub-classes of 2k-variable Boolean functions with good cryptographic properties.

In paper "Hardware Security in the Dark", Carpenter and Yu studied the current hardware security trends and discussed how future chip designs can leverage dark silicon for more secure designs. They have also proposed preliminary designs of hardware security mechanisms in the following three aspects: Moving target defense mechanism, physical unclonable devices, and coprocessor-based heterogeneous chip multiprocessors.

We would like to thank all of the authors for their contributions to this special issue and thank the reviewers for their constructive comments that helped improve

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the quality of papers submitted to this special issue. We also thank Prof. Ruqian Lu, the Editor-in-Chief of International Journal of Software and Informatics for the opportunity to publish this special issue.

Guest Edtiors:

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