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Abstract

Nature and natural organisms have always inspired researchers and scientists for solving real world issues. And Computer security is no exception. Artificial Immune System inspired from natural Immune System works efficiently for detecting intrusion in a network. Two layers of defenses: innate system and adaptive system are implemented in this proposed methodology where the innate system mimics the natural Innate Immune System to form the first line of defense. The adaptive system imitates the Adaptive Immune System by incorporating the T-cell and B-cell defensive mechanisms. The results exhibit that the proposed methodology works efficiently for detecting intrusion after inducing malicious attacks on the network system.

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Intrusion Detection System (IDS), Immune System (IS), Artificial Immune System (AIS)