Simulation of Detecting the Distributed Denial of Service by Multi-Agent
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The attackers on Internet-connected systems we are seeing today are more serious and more technically complex than those in the past. Computer security incidents are different from many other types of crimes because detection is unusually difficult. So, network security managers need a IDS and Firewall. IDS (Intrusion Detection System) monitors system activities to identify unauthorized use, misuse or abuse of computer and network systems. It accomplishes these by collecting information from a variety of systems and network resources and then analyzing the information for symptoms of security problems. A Firewall is a way to restrict access between the Internet and internal network. Usually, the input...

Mobility analysis of Planar Mobile Robots and The Rough-Terrain Mobile Robot via The Screw
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In this paper, the method of analyzing the mobility of the mechanisms is suggested. The method based on the joint screw provides accurate values of mobility of the mechanisms even with the lack of geometric generality. To show its validity, the method is applied to finding mobilities of planar mobile robots and a rough-terrain mobile robot, Mars Rover. To do so, simplified joint model for each of four different typical wheels of the mobile robots are described including friction velocities, firstly. Then, mobility analyses of planar mobile robots and the Mars Rover mobile robot for navigation on the rocky road on Mars are performed. It is confirmed that the obtained results in this study coincide with the previous ones which...

Multi-agent robot system is the system which executes by cooperating with each robots and controlling several robots. Capability and function of each robot must be considered for cooperation behavior. Furthermore, it is necessary to analyze the given environment and to replace complex task with some simple tasks. Analysis of the given environment and role assignment for the given tasks are composed of discrete event. In this paper, the hierarchical controller for multi-agent robot system using the petri-net state diagram is proposed. The proposed modeling method is implemented for soccer robot system. The effectiveness of proposed modeling method is shown through experiment.