

## عنوان مقاله:

Detection of attacks in industrial networks using stacked ensemble learning

## محل انتشار:

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## خلاصه مقاله:

one of the serious risks for the critical infrastructure of cyber-attacks in today's world is that with the advancement of technology, it has become more difficult to prevent these attacks. Among these, one of the most important and practical management systems of sensitive centers is industrial networks. Industrial control systems are considered as the control and monitoring brains of critical infrastructures such as power transmission and distribution networks, refineries, water transmission networks, traffic control of health networks, transportation. Therefore, the security of these structures and the prevention of disruption in these devices are very important. In this research, the ability to detect attacks has been exploited by stacked ensemble learning method by which a detection system of attacks is presented in the field of industrial networks and the Defense in depth architecture is optimized using deep learning. The results of experiments show that an intrusion detection system can be designed which is able to detect attacks in industrial networks with an accuracy of 98.1. Moreover, due to the presence of inappropriate features in the data set the obtained accuracies in some studies are false.

## کلمات کلیدی:

Security of industrial networks, deep learning, stacked ensemble learning, Defense in depth architecture, security of vital infrastructure

## لینک ثابت مقاله در پایگاه سیویلیکا:

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