





Special Issue Reprint

Advanced Cybersecurity Services Design

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This Special Issue includes 14 contributions, with 2 review contributions and 12 research contributions. The review contributions provide a survey with an overview of the state of the art in detecting and projecting cyber-attack scenarios, and the review of a specific application area, the safety of autonomous haulage systems in the mining environment related to both cybersecurity and communication. 10 research contributions are addressing the area of advanced services for intrusion detection systems: (a) the use of different machine learning models depending on the specific scenarios and datasets; (b) the use of deep learning techniques for the detection of zero-day attacks; (c) a proposal of an integrated scalable framework aimed at efficiently detecting anomalous events on large amounts of unlabeled data logs; (d) a spatiotemporal characterization of cyber-attacks for detecting such attacks; (e) a two-stage intrusion detection system for industrial control networks; (f) a chatbot for detecting online sex offenders, based on an artificial conversational entity (ACE); and (g) an open-source platform for manipulating both streaming and archived network flow data in real time. This Special Issue also contains two protection-related research contributions, including: (a) a countermeasure for on-off web defacement attacks and (b) the evaluation of multi-path routing as a protection feature against network attacks and failures.





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