

Artificial Intelligence in Cyber Security for Industry 4.0

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Abstract

The recent White House report on artificial intelligence (AI) highlights the importance of AI and the need for a clear roadmap and strategic investment in this area. As AI emerges from science fiction to become the frontier of world-changing technologies, there is an urgent need to systematically develop and implement AI to see its real impact in the next generation of industrial systems, known as Industry 4.0. This article provides an overview of the current state of AI in industrial applications and offers our contribution to the deployment of AI in cybersecurity for Industry 4.0.

Biography:

Farah JEMILI received the Engineer degree in Computer Science in 2002 and the Ph.D degree in 2010. She is currently Assistant Professor at Higher Institute of Computer Science and Telecom of Hammam Sousse (ISITCOM), University of Sousse, Tunisia. She is a senior Researcher at MARS Laboratory (ISITCOM –Tunisia). Her research interests include Artificial Intelligence, Cyber Security, Big Data Analysis, Cloud Computing and Distributed Systems. She served as reviewer for many international conferences and journals. She has many publications; 3 book chapters, 4 journal publications and more than 15 conference papers.

Recent Publications:

1. Ghodhbani, Salah & Jemili, Farah. (2015). Filtering Intrusion Detection Alarms using Ant Clustering Approach. International

Journal of Computer Applications. 111. 10.5120/19754-1048.

2. Jemili, Farah & Zaghdoud, Montassar & Ben Ahmed, Mohamed. (2009). Attack Prediction based on "Hybrid" Propagation in Bayesian Networks. International Journal of Internet Technology and Secured Transactions.
3. Jemili, Farah & Zaghdoud, Montassar & Ben Ahmed, Mohamed. (2009). Intrusion detection based on "Hybrid" propagation in Bayesian Networks. JIAS International Journal of Information Assurance and Security, Special Issue. 5. 137 - 142. 10.1109/ISI.2009.5137285.
4. Jemili, Farah & Zaghdoud, Montassar & Ben Ahmed, Mohamed. (2009). Hybrid Intrusion Detection and Prediction multiAgent System HIDPAS. IJCSIS IEEE International Journal of Computer Science and Information Security. 5. 472.
5. Jemili, Farah. (2013). Système de Détection et de Prévision d'Intrusions : À base de réseaux d'inférence incertaine et imprécise dans une architecture multi-agent.