

The emerging role of AI based expert systems in cyber defense and security

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Résumé ou extrait : "The world, especially developing countries, is going through digital transformation. Digital transformation of businesses, cities, manufacturing sector, service sector, government offices and procedures, vehicles (Internet enabled vehicles), and Industry 4.0 are taking place at a distinguished pace and have many rewards. Digital transformation helps to address many social, techno-financial, and governance issues, but it also carries many challenges like increased volume of cyber-attacks, privacy

concerns, security threats, digital identity threat, phishing frauds, operational security, and many other vulnerabilities. Aforesaid challenges have become a common phenomenon in today's interconnected world. It is the time when cyber-security must be stationed as a central issue and be established as a management issue besides a technological issue. The COVID-19 pandemic has accelerated the digital transformation. Work from home (remote working) and learn from home (online learning) are the new normal of life. The repercussions set by the COVID-19 pandemic will outlast the post-pandemic era. AI can help human society to resolve modern issues of cyber security. AI can be used by organizations to mitigate risks and increase revenue by detecting cyber threats and fraud at an early stage. Although keeping up with new viruses and malware updates is becoming more difficult, cyber security using artificial intelligence technologies will facilitate the detection and response to threats and malware by using previous cyber-attack data to determine the best course of action. AI may often be better and more effective than humans in detecting malicious malware. The faster the data breach was identified and contained, the lower the costs. This book will fill the gaps between artificial intelligence and its usage in cyber security and defense." (éd.)

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