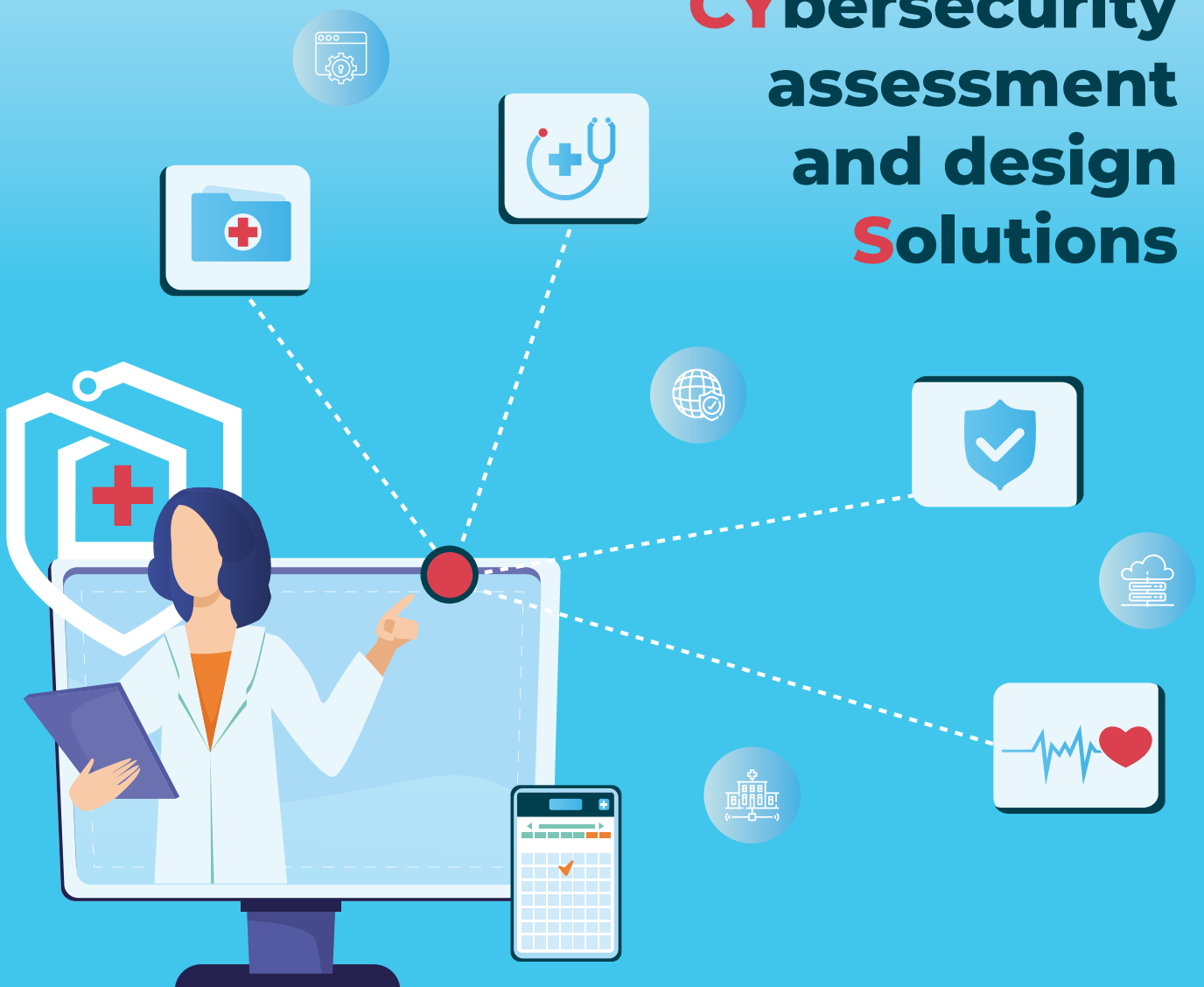




NEMECYS

NEW MEDICAL CYBERSECURITY AND DESIGN SOLUTIONS

NEW MEDICAL CYBERSECURITY assessment and design Solutions



NEMECYS Toolbox: Spyderisk System Modeller

Developed by University of Southampton

Spyderisk is an asset-based, knowledge-based risk simulator of socio-technical systems that follows an ISO 27005 approach and has been developed by the University of Southampton. It has a core schema that describes different fundamental concepts used within asset-based risk modelling and has domain-specific knowledge that uses this schema to encode knowledge of a given domain, such as different types of assets, threats and consequences that need to be considered.

The knowledge base developed for Spyderisk contains knowledge of assets, asset-based relationships, threats, risks, consequences and controls related to the domains of cyber-physical systems and patient harms of connected medical devices.



A user of Spyderisk builds a model of their socio-technical system under test within it, which can be comprised of medical devices, data, people, places and ICT hardware and software. Spyderisk then takes this model together with the knowledge base to determine the likelihood of different risks being present within the system along with their risk levels, based on their calculated likelihood levels and user-asserted impact levels.

The user can then explore the different risks and threats in the system, along with controls that can be applied to block or mitigate different threats and risks, which lower the likelihoods of those threats and risks. Additionally, Spyderisk can recommend controls to reduce the likelihood of risks too. NEMECYS extends the domain knowledge encoded within the knowledge base of Spyderisk towards patient harms caused by cybersecurity threats, making the link between the worlds of cybersecurity and medical safety.



Technical Inquiries for the Tool

If you are interested in learning more about the tool, its capabilities, or technical details, please contact info@spyderisk.org



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