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Large-scale Testbed and Cyber Range Organization and Design 大規模なテストベッドとサイバーレンジ構成学

People have become more and more reliant on the Internet. This will lead to a world in which devices and people are all connected together: the **Internet of Things** (IoT).

Although **network communication** makes life more convenient, it also exposes users to **cybersecurity risks**, such as malware, phishing, etc. Therefore, it is of utmost importance to conduct **cybersecurity education and training** as we perform at JAIST.

IT professionals and security experts must acquire the practical skills for properly bandling incidents by using cyber ranges **Regular computer users** need to gain **awareness** of potential cybersecurity risks



Network applications should be designed

IoT technologies are still under development,

and assessed from the perspective of cybersecurity risks by using emulation.



Network emulation framework: NERVF

and **thorough experiments** are required to make sure they are **operating safely**.





FPGA-based propagation emulator: StarWave 802.15.4 support (ongoing development)



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