Beyond Boundaries: Holistic Network Security in an Age of IoT, AI, ML, and Decentralized Computing

Message from the Guest Editors

In the rapidly metamorphosing digital cosmos, the quintessential pillars of IoT, AI, ML, and decentralized computing are introducing both unprecedented opportunities and challenges. While these technologies weave a richer digital tapestry, they also amplify the vulnerabilities in our network architectures. This Special Issue, "Beyond Boundaries: Holistic Network Security in an Age of IoT, AI, ML, and Decentralized Computing", endeavors to address these complex intersections, unearthing the transformative potential of these technologies in reshaping network security paradigms. AI and ML are powerful computational tools that can sift through vast datasets, identifying patterns and anomalies, predicting vulnerabilities, and even automating responses to certain types of threats. Furthermore, the decentralized realms of Fog and Edge computing makes the networking environment more complex in terms of security. One of the aims of this Special Issue is to incorporate innovative methodologies that can be employed to make these computing paradigms both efficient and secure.

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