

Special Issue

Hardware Security Attacks and Countermeasures in Integrated Circuits

Message from the Guest Editor

Dear colleagues, The trend towards globalisation and the need to cut costs to gain competitive advantages have resulted in a remarkable growth of outsourcing levels; this is particularly true for the hardware supply chain. The latter has become a multinational distributed business. This evolution of the supply chain structure has brought about a number of serious challenges, including a rising level of IP piracy, counterfeiting and the emergence of new forms of attacks. Such attacks can lead severe consequences. Financially, counterfeiting is costing the global economy billions of US dollars every year. Furthermore, compromised hardware products pose a serious security threat if used in critical infrastructure and military applications. Topics of interest in this Special Issue include but are not limited to security attacks on MEMS and emerging countermeasures; IC supply chain security analysis; new advances in IP protection techniques (e.g., logic locking, split manufacturing); advances in physical attacks and reverse engineering technologies; anomaly detection methods; secure-by-design hardware architectures; novel hardware based security primitives (e.g., PUF, RNG).

Guest Editor

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