Call for Papers

------- Special Section on Next-generation Security Applications and Practice -------

The IEICE Transactions on Information and Systems announces that it will publish a special section entitled " Special Section on Next-generation Security Applications and Practice" in November 2021.

With the commercialization of 5G communication, the era of hyperconnectivity is coming while introducing new ICT platform evolution. As the data collected from autonomous vehicles and robots are transmitted to bigdata server in real time, it is expected to advance the practical use of artificial intelligence technology. In addition, the data collected from mobile devices such as smartphones and Internet tablets is increasing in speed and quantity compared to traditional personal computing era. As such, there has been an explosion of the Internet that has become increasingly dependent on intelligent and interconnected devices in all aspects of our lives lately. Examples are wearable devices such as smart systems, smart cars, smart clocks and digital glasses. In always-connected environments, i.e., new emerging ICT platform, mobile devices will still be essential gateways from a personal point of view, and bridging things can impact business intelligence and provide new possibilities for exchanging diverse data items. This can also pose a number of new potential risks to security and privacy, which must be considered.

Hence, the main motivation for this special issue is to bring together researchers, practitioners, policy makers, and hardware and software to explore the latest understanding and advances in the security and privacy for devices, applications, and systems. Especially, we focus on innovative information security applications and practice to respond quickly to new 5G era, Industry 4.0, Society 5.0, ICT platform evolution, and supply chains.

This special section will be associated with the upcoming World Conference on Information Security Applications (WISA 2020), which is one of the Korean flagship international security conferences. Besides, the special section will be not limited to the authors of WISA 2020, but will also be open to any author.

1. Scope

This special section aims at timely dissemination of research in these areas. Possible topics include, but are not limited to:

- Access control
- AI security
- Analysis of real-world network and security protocols
- Anonymity and censorship-resistant technologies
- Applications of cryptographic techniques
- Authentication/identification and authorization
- Automated tools for source code/binary analysis
- Automobile security
- Botnet defense
- Blockchain security
- Critical infrastructure security
- Denial-of-service attacks and countermeasures
- Digital Forensics
- Edge computing security
- Embedded systems security
- Exploit techniques and automation
- Hardware and physical security
- HCI security and privacy
- Intrusion detection and prevention
- Malware analysis
- Mobile/wireless/cellular system security
- Lightweight/advanced cryptography
- Network-based attacks
- Network/Edge security
- Network infrastructure security
- Operating system security
- Practical cryptanalysis (hardware, DRM, etc.)
- Practical security applications and case studies
- Security policy/management
- Side channel attacks and countermeasures
- Storage and file systems security
- Supply chain security
- Techniques for developing secure systems
- Trustworthy computing
- Trusted execution environments
- Unmanned System Security for Vehicle/Drone/Ship Systems
- Vulnerability research
- Web security

2. Submission Instructions

- A manuscript should be prepared according to the guideline given in "The Information for Authors" (https://www.ieice.org/eng/shiori/mokuji_iss.html). We encourage the authors to use the IEICE Style File (https://www.ieice.org/ftp/index-e.html). The preferred length of the manuscript is 8 pages for a PAPER and 2 pages for a LETTER with the format determined by the IEICE Style File.
- Submit the manuscript through the IEICE Web site (https://review.ieice.org/regist/regist_baseinfo_e.aspx). Choose "[Special-NG] Next-generation Security Applications and Practice" in the menu of "Journal/Section" in the submission page. Do not choose "[Regular-ED] Information and Systems" or other special sections.
- Authors must agree to the "Copyright Transfer and Page Charge Agreement" via electronic submission.
- Submission deadline of the manuscript is February 10, 2021. (Firm deadline.)

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3. Special Section Editorial Committee

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* **Upon accepted for publication, all authors, including authors of invited papers, should pay the page charges covering partial cost of publication around July 2021. If payment is not completed by 15 August, 2021 your manuscript will be handled as rejection.**

* The standard period of 60 days between the notification (of conditional accept) and the second submission can be shortened according as the review schedule.

* At least one of the authors must be an IEICE member when the manuscript is submitted for review. Invited papers are an exception. We recommend authors unaffiliated with IEICE to apply for the membership (https://www.ieice.org/eng/join/member.html).

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