# Call for Papers for JIPS Special Section 3 :

## Advanced Cryptography, Security, and Privacy

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## Journal of Information Processing Systems

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The Journal of Information Processing Systems (JIPS) is the official international journal of the Korea Information Processing Society. As information processing systems are progressing at a rapid pace, the Korea Information Processing Society is committed to providing researchers and other professionals with the academic information and resources they need to keep abreast with ongoing developments. The JIPS aims to be a premier source that enables researchers and professionals all over the world to promote, share, and discuss all major research issues and developments in the field of information processing systems and other related fields.

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Indexing:

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Modern societies are becoming increasingly dependent on diverse ICT technologies including mobile, cloud, big data, Internet of Things (IoT), and others. These technologies make the research community concentrate on novel research topics including lightweight, scalable, and easily deployable cryptography technologies, such as blockchain, homomorphic encryption, privacy-oriented cryptography, and so on. For example, the blockchain,  inspired by the notion of Bitcoin, emerged as an attractive distributed consensus scheme that allows transactions to be stored securely & verified without a centralized authority.

On the other hand, those have led to new cyber threats and security issues continuously despite the benefits with the rapid growth of mobile and cloud users. Moreover, those security issues have also influenced IoT vulnerabilities. IoT services have tightly coupled embedded devices, smart devices, personal computer, wireless networks, cloud computing, and so on. One of the security vulnerabilities among those components could be jeopardizing the overall system and make it vulnerable to threats. Furthermore, IoT forms the foundation of Cyber-Physical Systems (CPS) as a key element of the new fourth industrial revolution. CPS are next-generation embedded systems featuring the tight integration of computational and physical elements such as telematics, healthcare, SCADA systems, smart-grid systems, critical infrastructure networks, etc.

Overcoming those threats and issues requires advanced research on cryptography, security, and privacy technologies. Advanced security technologies are promoting trust and reliance on infrastructures for the advent of the fourth industrial revolution. This special session attempts to highlight some of the recent research and development addressing issues related to these motivations.

▶ **Subject Coverage**

We are inviting original papers on theories, methodologies, models, technologies, systems, services, tools, applications, work in progress, and experiences focusing on technologies in the areas of cryptography, security, and privacy. This special session aims to provide a forum that brings together researchers from the academe, engineers working in the industries listed above, and the government to meet and exchange ideas on advanced technologies, services, and applications in cryptography, security, and privacy. Topics of interest include, but are not limited to:

[Advanced Cryptography]
- Blockchain cryptography
- Homomorphic encryption
- Quantum cryptography
- Lightweight cryptography for IoT
- Information-hiding techniques (Stenography, Covert channels, etc.)
- Privacy-oriented cryptography

[Advanced Security]
- Big data security
- Cloud security and application
- Critical infrastructure protection
- Cyber-physical systems security
- Social networking and Cloud forensics
- Smart grid security
- Autonomous vehicle security
- Security for mobile, wearable, and IoT
- SDN security issues and challenges

[Advanced Privacy]
- Differential privacy
- Privacy enhancing technologies (PET)
- Privacy in pervasive systems
- Privacy in the cloud, big data, and IoT
- Privacy attacks and detection for IoT
- Privacy in video surveillance

## ▶ Submission Guidelines

Papers must be submitted to the ManuscriptLink service:

https://www.manuscriptlink.com/journals/jips

It is important that you select "**Special Issue/Section Track**" and "**Advanced Cryptography, Security, and Privacy**" upon reaching the "Basic Information" step in the submission process. Before you submit your papers, we strongly recommend reading the JIPS submission guidelines.

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## ▶ Important Date

- Deadline for manuscript submission: March 30, 2017
- Author notification: April 30, 2017
- Expected publication date: 3rd quarter, 2017 (tentative)