

# **The 2nd Bright Internet China Symposium**

July 2<sup>nd</sup> (M) – 3<sup>rd</sup> (T), 2018

**Venue: Tsinghua University, Beijing, China**

The Bright Internet pursues the preventive cybersecurity paradigm to complement the limit of self-defensive protective cybersecurity paradigm. The Bright Internet China Symposium (BICS) in cooperation Bright Internet Global Summit is organized to develop and exchange the research issues and action items toward the next generation safe Internet world with the global perspective, but particularly in the context of China. To this end, BICS was held first in 2017 at Xi'an Jiaotong University (see [BICS2017](#)), and BICS2018 at Tsinghua University is the second symposium held in China.

This symposium will be excellent forum of exchanging idea and research outcomes for the leading research group, industry, and policy makers. Key questions that this symposium present are:

1. What is the necessary paradigm shift of cybersecurity, and what can be the role of the Bright Internet to this end?
2. How to realize the fundamental traceability of malicious origins and deliverers sustaining the privacy of innocent netizens?
3. How can we motivate the cybersecurity solution providers to create and propagate the preventive cybersecurity functions that diminish the sources of cybercrimes?
4. How can the blockchain technology be used to realize the Bright Internet Principles and vice versa within tolerable computing overhead?
5. What should the national policies and international collaboration model be to preventively fulfill the safe national and global cybersecurity?
6. What should be the leadership of China in fulfilling the goals of the Bright Internet principles not only domestically, but also globally?

# Organizing Committee

## General Co-Chairs:

- **Xing Li** (*Professor, Department of Electronic Engineering, Tsinghua University, China*)
- **Jae Kyu Lee** (*Professor of Korea Advanced Institute of Science and Technology, Korea, and Visiting Chair Professor of SUSTech*)

## Program Co-Chairs:

- **Jun Bi** (*Professor, Deputy Dean of Institute of Network Science & Cyberspace, Tsinghua University, China*)
- **Wei Huang** (*Changjiang Chair Professor, School of Management, Xi'an Jiaotong University, China*)

## Local Arrangement Co-Chairs:

- Ying Liu (*Deputy Dean of Institute of Network Science & Cyberspace, Tsinghua University, China*)
- Jie An (*Assistant Director of CERNET Network Center, China*)

## Web Manager:

- Jiyong Park (*Ph.D. Candidate, School of Business, KAIST, Korea*)

## Local Arrangement Staffs:

- Xin Zhang (*Institute of Network Science & Cyberspace, Tsinghua University, China*)

## Program at a Glance

	<b>Day 1: July 2<sup>nd</sup> (Monday)</b>	<b>Day 2: July 3<sup>rd</sup> (Tuesday)</b>
9:00 – 10:20	<b>Opening Session 1</b> <ul style="list-style-type: none"> <li>• <b>Welcome Addressing</b> (Yu Zhou, Tsinghua University, China)</li> <li>• <b>Opening Remark</b> (Jianping Wu, Tsinghua University, China)</li> <li>• <b>Cyber Civilization and Role of Bright Internet</b> (David J. Farber, Carnegie Mellon University, USA)</li> </ul>	<b>Technology Session 2</b> <ul style="list-style-type: none"> <li>• <b>Blockchain Research Progress</b> (Chao Zhang, Tsinghua University, China)</li> <li>• <b>A Bright Blockchain System for P2P Stream Services</b> (Jong Uk Choi, MarkAny, &amp; Jae Kyu Lee, KAIST, Korea and SUSTech, China)</li> </ul>
10:40 – 12:00	<b>Opening Session 2</b> <ul style="list-style-type: none"> <li>• <b>Why Preventive Cybersecurity Paradigm Essential</b> (Jae Kyu Lee, KAIST, Korea and SUSTech, China)</li> <li>• <b>From IPv6 to the Bright Internet</b> (Xing Li, Tsinghua University, China)</li> </ul>	<b>Policy Session 1</b> <ul style="list-style-type: none"> <li>• <b>A Prototype of Bright Cloud</b> (Yunfeng Zang, Yovole Networks, China)</li> <li>• <b>Cybercrimes and Underground Economics</b> (Jianwei Zhuge, Tsinghua University, China)</li> </ul>
12:00 – 14:00	<b>Lunch Break</b>	
14:00 – 15:50	<b>Technology Session 1</b> <ul style="list-style-type: none"> <li>• <b>ISP's Deliverer Responsibility &amp; Case Study for Bright Internet</b> (Woo Tae Kim, Korea Telecom, Korea)</li> <li>• <b>Development and Challenges in Network Cloudification</b> (Huilin Zhao, Network and Service Committee of China, China)</li> <li>• <b>How can the IPv6 traceability of CERNET2 be designed to reconcile the anonymity and privacy of innocent netizens</b> (Jun Bi, Tsinghua University, China)</li> </ul>	<b>Policy Session 1</b> <ul style="list-style-type: none"> <li>• <b>Research Issues of Bright ICT: Delphi Study</b> (Jung Woo Lee, Yonsei University, Korea)</li> <li>• <b>Comparative Analysis of Cyber Security Principles</b> (Young Yung Shin, KAIST Bright Internet Research Center, Korea)</li> </ul>
16:40 – 17:30	<b>Business Session</b> <ul style="list-style-type: none"> <li>• <b>Status of Cyber Security Market and Potential Solutions for Preventive Cyber Security</b> (Xiaosheng Tan, Qihoo 360, China)</li> <li>• <b>Bright E-Mail by the Hyperledger Architecture</b> (Jong Uk Choi, MarkAny, &amp; Jae Kyu Lee, KAIST, Korea and SUSTech, China)</li> </ul>	<b>Global Collaboration Session</b> <ul style="list-style-type: none"> <li>• <b>Cross-border Collaboration to Prevent and Protect Cybercrimes: Korea Perspective</b> (Kywhan Bong, Korea Internet &amp; Security Agency, Korea)</li> <li>• <b>Panel on the Next Step of the Bright Internet Initiative</b> (Jae Kyu Lee, KAIST &amp; SUSTech, Xing Li, Tsinghua University, Zhangxi Lin, Texas Tech University)</li> </ul>

# Program

## July 2<sup>nd</sup> (Monday)

### Opening Session 1 (9:00-10:20)

**Session Chair: Xing Li** (*Professor, Department of Electronic Engineering, Tsinghua University, China*)

- **Welcome Addressing (9:00-9:10)**

**Yu Zhou**, *Professor, Dean of Office of Scientific R&D, Tsinghua University, China*

- **Opening Remark (9:10-9:20)**

**Jianping Wu**, *Professor, Dean of Institute of Network Science & Cyberspace, Tsinghua University, China*

- **Cyber Civilization and Role of Bright Internet (9:20-10:00)**

**David J. Farber**, *Director of Cyber Civilization Research Center, Keio University, Japan and Distinguished Career Professor, Carnegie Mellon University, USA*

- Q&A and Discussion (10:00-10:20)

### Opening Session 2 (10:40-12:00)

**Session Chair: Jun Bi** (*Professor, Deputy Dean of Institute of Network Science & Cyberspace, Tsinghua University, China*)

- **Why Preventive Cybersecurity Paradigm Essential (10:40-11:10)**

**Jae Kyu Lee**, *Professor of KAIST, Korea and Visiting Chair Professor of SUSTech, China*

- **From IPv6 to the Bright Internet (11:10-11:40)**

**Xing Li**, *Professor, Department of Electronic Engineering, Tsinghua University, China*

- Q&A and Discussion (11:40-12:00)

### Lunch Break (12:00 -14:00)

## **Technology Session 1 (14:00-15:50)**

**Session Chair: Xing Li** (*Professor, Department of Electronic Engineering, Tsinghua University, China*)

- **ISP's Deliverer Responsibility & Case Study for Bright Internet**

**Woo Tae Kim**, *Vice President, Infra R&D Lab, Institute of Convergence Technology, Korea Telecom, Korea*

- **Development and Challenges in Network Cloudification (14:30-15:00)**

**Huiling Zhao**, *Chair of Network and Service Committee of China Communications Standards Association, China*

- **How can the IPv6 traceability of CERNET2 be designed to reconcile the anonymity and privacy of innocent netizens (15:00-15:30)**

**Jun Bi**, *Professor, Deputy Dean of Institute of Network Science & Cyberspace, Tsinghua University, China*

- Q&A and Discussion (15:30-15:50)

## **Business Session (16:10-17:30)**

**Session Chair: Wei Huang** (*Changjiang Chair Professor, School of Management, Xi'an Jiaotong University, China*)

- **Status of Cyber Security Market and Potential Solutions for Preventive Cyber Security (16:10-16:40)**

**Xiaosheng Tan**, *Chief Security Officer, Vice President of Qihoo 360, China*

- **Bright E-Mail by the Hyperledger Architecture (16:40-17:10)**

**Jong Uk Choi**, *President of MarkAny, Korea, Jae Kyu Lee, KAIST, Korea*

- Q&A and Discussion (17:10-17:30)

## July 3rd (Tuesday)

### **Technology Session 2 (9:00-10:20)**

**Session Chair: Jun Bi** (*Professor, Deputy Dean of Institute of Network Science & Cyberspace, Tsinghua University, China*)

- **Blockchain Research Progress (9:00-9:30)**

**Chao Zhang**, *Associate Professor, Institute of Network Science & Cyberspace, Tsinghua University, China*

- **A Bright Blockchain System for P2P Stream Services (9:30-10:00)**

**Jong Uk Choi**, *President of MarkAny, Korea*, **Jae Kyu Lee**, *KAIST, Korea*

- Q&A and Discussion (10:00-10:20)

### **Policy Session 1 (10:40 – 12:00)**

**Session Chair: Qingguo Meng** (*Professor, School of Public Policy and Management, Tsinghua University, China*)

- **A Prototype of Bright Cloud (10:40-11:10)**

**Yunfeng Zang**, *CTO of Yovole Networks, China*

- **Cybercrimes and Underground Economics (11:10-11:40)**

**Jianwei Zhuge**, *Associate Professor, Institute of Network Science & Cyberspace, Tsinghua University, China*

- Q&A and Discussion (11:40-12:00)

### **Lunch Break (12:00 -14:00)**

### **Policy Session 2 (14:00-15:30)**

**Session Chair: Zhangxi Lin** (*Professor, Texas Tech University, USA*)

- **Research Issues of Bright ICT: Delphi Study (14:00-14:30)**

**Jung Woo Lee**, *Professor, Yonsei University, Korea*

- **Conformity of Internet Peace Principles with the Policies of China and USA (14:30-15:00)**

**Young Yung Shin**, *Senior Researcher, KAIST Bright Internet Research Center, Korea*

- Q&A and Discussion (15:00-15:30)

### **Global Collaboration Session (16:00-17:30)**

**Session Chair: Wei Huang** (*Changjiang Chair Professor, School of Management, Xi'an Jiaotong University, China*)

- **Cross-border Collaboration to Prevent and Protect Cybercrimes: Korea Perspective (16:00 – 16:30)**

**Kywhan Bong**, *Director, Korea Internet & Security Agency, Korea*

- **Panel on the Next Step of the Bright Internet Initiative (16:30 – 17:30)**

**Jae Kyu Lee**, *KAIST & SUSTech*, **Xing Li**, *Tsinghua University*, **Zhangxi Lin**, *Texas Tech University*

Discussion with all speakers and participants

**Closing Remarks: BICS2018 Chairs**