

# 2016 IEEE Cyber Science and Technology Congress (CyberSciTech 2016)

Auckland, New Zealand

August 8-12, 2016

<http://cyberscitech.net/2016/>

*Towards Cyber-Enabled New Sciences,  
Technologies and Applications  
for a Better Society*



Co-located with IEEE DASC 2016, PICom 2016 and DataCom 2016

## Honorary Chairs

Mazin Yousif, T-Systems, International, USA  
Albert Zomaya, The University of Sydney, Australia

## General Chairs

Qun Jin, Waseda University, Japan  
Hui-Huang Hsu, Tamkang University, Taiwan  
Miroslaw Malek, University of Lugano, Switzerland

## General Executive Chairs

Kevin Wang, The University of Auckland, New Zealand  
Yang Xiang, Deakin University, Australia

## Program Chairs

Yufeng Wang, Nanjing Univ. of Posts Telecomm., China  
Boon-Chong Seet, Auckland Univ. of Tech., New Zealand  
Neil Y. Yen, University of Aizu, Japan  
Richard Tzong-Han Tsai, National Central Univ., Taiwan

## Workshop Chairs

Weimin Li, Shanghai University, China  
Ivan Ruchkin, Carnegie Mellon University, USA

## Tutorial/Panel Chair

Carson Leung, University of Manitoba, Canada

## Forum Chair

Ka Lok Man, Xi'an Jiaotong-Liverpool University, China

## Special Session Chairs

Qingyong Li, Beijing Jiaotong University, China  
William Liu, Auckland Univ. of Tech., New Zealand

## Demo/Poster Chair

Chun-Hao Chen, Tamkang University, Taiwan

## Special Issue Chairs

Yufeng Wang, Nanjing Univ. of Posts Telecomm., China  
Xiaokang Zhou, Waseda University, Japan

## International Liaison Chairs

Kun Yang, University of Essex, UK  
Maiga Chang, Athabasca University, Canada  
Raymond Choo, University of South Australia, Australia  
Neeraj Kumar, Thapar University, India  
Bofeng Zhang, Shanghai University, China  
Feng Xia, Dalian University of Technology, China  
Bernady O. Apduhan, Kyushu Sangyo University, Japan  
Caiming Zhang, Shandong University, China

## Publicity Chairs

Seng Yue Wong, Taylor's University, Malaysia  
Guangquan Xu, Tianjin University, China  
Gabor Kiss, Obuda University, Hungary  
Rui Teng, NICT, Japan  
Hong Chen, Waseda University, Japan  
Seungmin Rho, Sungkyul University, Republic of Korea  
Mahmoud Elkhodr, Univ. of Western Sydney, Australia  
Nikolai Kazantsev, Higher School of Economics, Russia

## Steering Committee

Jianhua Ma (Chair), Hosei University, Japan  
Laurence T. Yang, St. Francis Xavier University, Canada  
Huansheng Ning, Univ. of Sci. and Tech. Beijing, China

## Program Committee

See <http://cyberscitech.net/2016/>

## Contact Email

[cyberscitech2016@gmail.com](mailto:cyberscitech2016@gmail.com)

We have been able to digitize almost everything. Besides, whatever we digitize, we can certainly integrate and analyze. That also enabled the emergence of a new paradigm on global information networks and infrastructures known as Cyberspace, which has emerged as the new frontier that seamlessly brings together physical, social and mental spaces. Cyberspace is evolving to become an integral component of our daily life bringing together work and private life; learning and entertainment, and business and cultural activities. As expected, this whole concept of cyberspace brings new challenges that need to be tackled.

To address these continuously emerging challenges, there is a need to establish new sciences and research portfolios that incorporates cyber-physical, cyber-social and cyber-mental together in a coherent manner to deliver the vision of Cyberspace. This is the aim of the 2016 IEEE Cyber Science and Technology Congress (CyberSciTech 2016) to offer a common platform for scientists, researchers and engineers to exchange their latest ideas and outcomes in research, technology and science. It is also a venue to exchange the latest advances in cyberspace studies with the broad scope of cyber-related sciences, technologies and applications topics.

The CyberSciTech 2016 Congress will be held jointly with the 14th IEEE Int'l Conf. on Dependable, Autonomic and Secure Computing (DASC 2016); the 14th IEEE Int'l Conf. on Pervasive Intelligence and Computing (PICom 2016); and the 2nd IEEE Int'l Conf. on Big Data Intelligence and Computing (DataCom 2016).

CyberSciTech 2016 covers four main research tracks including but not limited the following areas or topics.

### Track 1: Cyber Science and Fundamentals

Cyberspace Structure & Property, Cyber-world Constituents & Evolution, Cyberspace & Cyber-world Modeling, Cyber-enabled Hyper-connection, Cyber Visualization, Web Science, Internet Science, Data Science, Cyber Physical Science, Cyber Social Science, Cyber Human Science, Cyber Life Science, Cyber Physics, Cyber Biology, Cyber Ecology, Cyber Dynamics, Cyber Security

### Track 2: Cyber Physical Computing and Systems

Cyber-Physical Systems, Cyber-Physical Interface, Cyber-Physical Hybrid Intelligence, Ambient Intelligence, Intelligent Transportation Systems, Networked Robots, Virtual Reality, Augmented Reality, Wearable/Bearable Computing, Cyborg, Internet of Things (IoT), Smart Object, Smart Sensor, Smart Environment, Smart City, Smart Agriculture, Smart Manufacture, Smart Healthcare, Smart Service, Smart Cloud, Smart World

### Track 3: Cyber Social Networks and Computing

Cyber-Social Networks, Cyber-Sociology, Cyber-Culture, Cyber-Economy, Cyber-Social Evolution, Cyber-Social Sensing, Cyber-Social Simulation, Cyber-Behavior Analytics, Cyber-Crowdsourcing, Cyber-Trust, Cyber-Privacy, Cyber-Rights, Cyber-Crime, Cyber-Law, Cyber-Telepathy, Anticipatory Computing

### Track 4: Cyber Mind and Mental Computing

Cyber-Brain, Cyber-Individual, Cyber-Life, Cyber/Digital Clone, Cyber-Human Evolution, Cyber-Psychology, Cyber-Cognition, Cyber-Affordance, Cyber-Human Analytics, Cyber-based Learning,

## Important Dates

<b>Tutorial/Workshop/Special Session Proposal Due:</b>	<b>March 15, 2016</b>
<b>Main Track Paper Due:</b>	<b>April 30 2016 (extended)</b>
<b>Workshop Paper Due:</b>	<b>May 13, 2016 (extended)</b>
<b>Special Session Paper Due:</b>	<b>May 13, 2016 (extended)</b>
<b>Demo/Poster Due:</b>	<b>May 13, 2016 (extended)</b>
<b>Author Notification:</b>	<b>May 23, 2016</b>
<b>Camera-Ready Manuscript/Registration Due:</b>	<b>June 6, 2016</b>

## Submission and Publication

Authors are invited to submit their original research work that has not previously been submitted or published in any other venue. Submitted papers need to abide by IEEE Computer Society formats. Final papers must be formatted accordingly (see "[IEEE Manuscript Templates](#)").

Main track papers will be submitted to the CyberSciTech 2016 system at the congress web site. A main track paper needs to be in IEEE CS format and should be 8 pages.

Proposals for organizing tutorials, workshops and special sessions need to be submitted to the Tutorials, Workshops and Special Sessions Chairs, respectively. A proposal should include title, theme, scope and main presenters/organizers.

Workshop and Special Session papers need to be submitted to the corresponding workshops and special sessions. A workshop or special session paper needs to be in IEEE CS format and 6 pages.

Demo/Poster proposals/papers need to be submitted to the Demo/Poster Chair. Submissions need to be in IEEE CS format and should be between 2-4 pages. They should also include any Audio/Video requirements, if any. The congress will award best demos.

All accepted papers in the main tracks, workshops, special sessions and demos/posters will be published in an IEEE Computer Society proceedings (EI indexed). Extended versions of selected excellent papers will be considered for publication in special issues of prestige journals (including seven SCI/E indexed journals and two IEEE Transactions).