INCS-CoE
International Cybersecurity Center of Excellence:
The University Role for Global Cyber Society

CYDEF2019
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1. Keio University announced on November 1st, 2016 to launch the world's first InterNational Cyber Security Center of Excellence (INCS-CoE) with U.S., UK, and Japanese universities: Prof Jun Murai became the Chair.

2. July 2019, new INCS-CoE Charter was ratified internationally by the 6 U.S., UK, and Japanese university Presidents.

3. INCS-CoE is the backbone of International Cybersecurity Symposia series at Keio University: 9th Symposium planned on Dec 11-12, 2019.

4. There are 25 international leading cybersecurity related universities in the US, UK, Japan, and expending to Israel, Indonesia, and Australia.

5. Corporate membership include Hitachi, NEC, Fujitsu, Cisco, Adobe, and Northrop Grumman.

The Vision of the INCS-CoE is to work together in multi-stakeholder environment of Government-Private-Academia collaboration, chartered by institutions starting from the United States, the United Kingdom, and Japan as the Core Members, then expanding and creating the environment for collaboration efforts where people meet and work together.

- **As an umbrella organization, INCS-CoE facilitates to generate individual projects, providing the value for the government-industry-academia where one organization nor one country can accomplish the cybersecurity goal of with international collaborating each other.**

- **Main pillars of the activities are: 1) Research, 2) Policy, and 3) Education and Training: "Tiger Teams" can be created for the individual projects to address internationally pressing issues.**

- **The outcomes will be joint research projects, white papers and statements, student competition and exchanges, funded by joint government schemes and industry contributions. The outcomes are also shared with Working Group meetings and International Symposiums**

- **INCS-CoE is the world first international organization for collaboration to address international cybersecurity issues, keeping neutrality from political and business competitive aspects to work together starting from academia.**

- **INCS-CoE as the backbone of the Symposiums collaborating Government-Industry-Academia scheme: Face-to-face meetings from international aspects have been recognized as enhancing value of collaboration with trust during the Workshops and International Cybersecurity Symposiums at least twice a year.**

- **The top-notch universities in the cybersecurity in the world are involved in the activities to generate the best of the ideas interacting and working together with industry and government.**
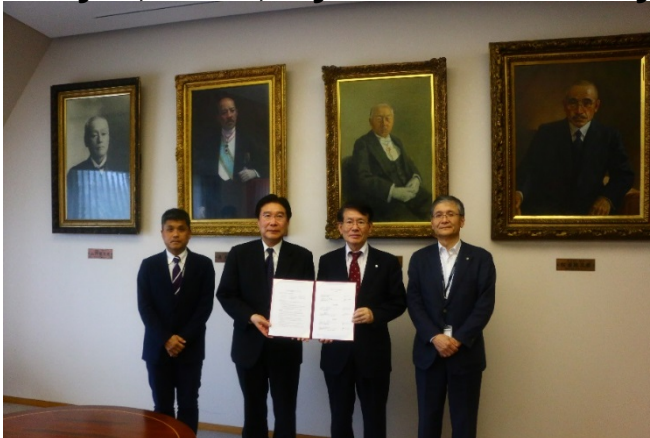
INCS-CoE Mission is to pioneer efforts worldwide to address challenges created by the growing borderless digital society. Understanding that a single nation-state or one organization will not be able to solve the challenges on its own, the INCS-CoE will start with universities and grow to an academic-government-private collaboration.

April 30, 2019, UMBC

June 28, 2019 at Imperial College

July 2, 2019, Kyushu University

Leaders (from the left) of
Royal Holloway, University of London
Imperial College London
Northeastern University

July 4, 2019 at Keio University

Charter University Signatures

Japan

Akira Haseyama, President
Keio University, Tokyo
July 4, 2019

Chiharu Kubo, President
Kyushu University, Fukuoka
July 2, 2019

United Kingdom

Professor Alice Gast, President
Imperial College, London
28 June 2019

Professor Paul Layzell, Principal
Royal Holloway and Bedford New College, London
28/6/2019

United States

Joseph E. Aoun, President
Northeastern University, Boston
June 18, 2019

Freeman A. Hrabowski III, President
University of Maryland, Baltimore County, Baltimore
April 30, 2019

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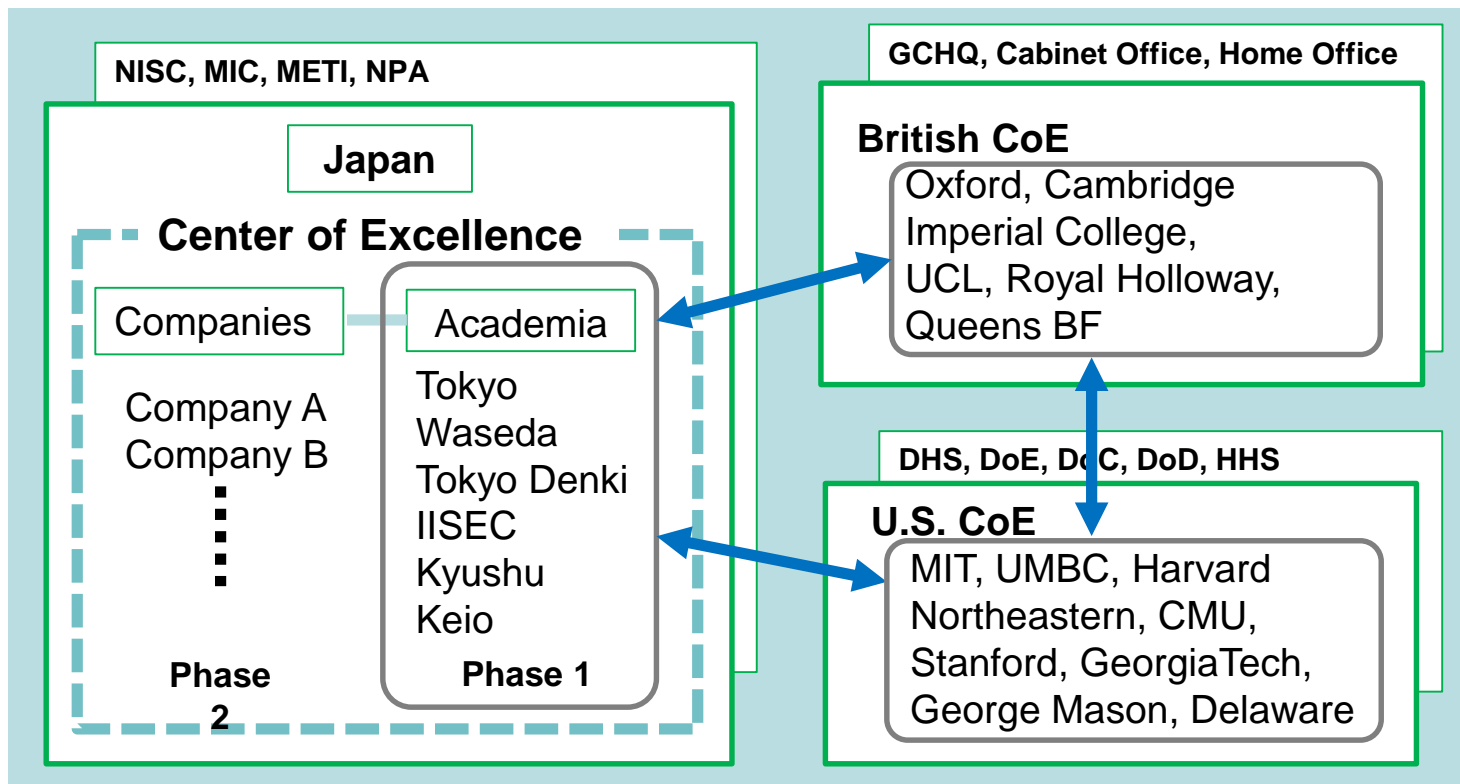
Advisory Committee Chair: Jun Murai, Keio

New Board:

Chair:	Satoru Tezuka, Keio
Vice-Chair:	David Luzzi, Northeastern
Director:	Karl Steiner, UMBC
Director:	Chris Hankin, Imperial College
Director:	Keith Mayes, Royal Holloway
Director:	Koji Okamura, Kyushu University

Officer:

Executive Director: Kazuo Noguchi, Keio

InterNational Cyber Security Center of Excellence (INCS-CoE) in vision is based on Government-Private-Academia partnerships started with 3 countries, US, UK, and Japan from universities as Phase 1 expanding worldwide.

NISC, MIC, METI, NPA

Japan

Center of Excellence

Companies — Academia

Company A
Company B
...

Tokyo
Waseda
Tokyo Denki
IISEC
Kyushu
Keio

Phase 2

Phase 1

GCHQ, Cabinet Office, Home Office

British CoE

Oxford, Cambridge
Imperial College,
UCL, Royal Holloway,
Queens BF

DHS, DoE, DoC, DoD, HHS

U.S. CoE

MIT, UMBC, Harvard
Northeastern, CMU,
Stanford, GeorgiaTech,
George Mason, Delaware

INCS-CoE started loosely coupled umbrella organization in 2016. By 2018, the membership expanded to 25 universities, further expanding. After ratification by 6 universities in US, UK, and Japan, the organization become more robust globally handling international projects.
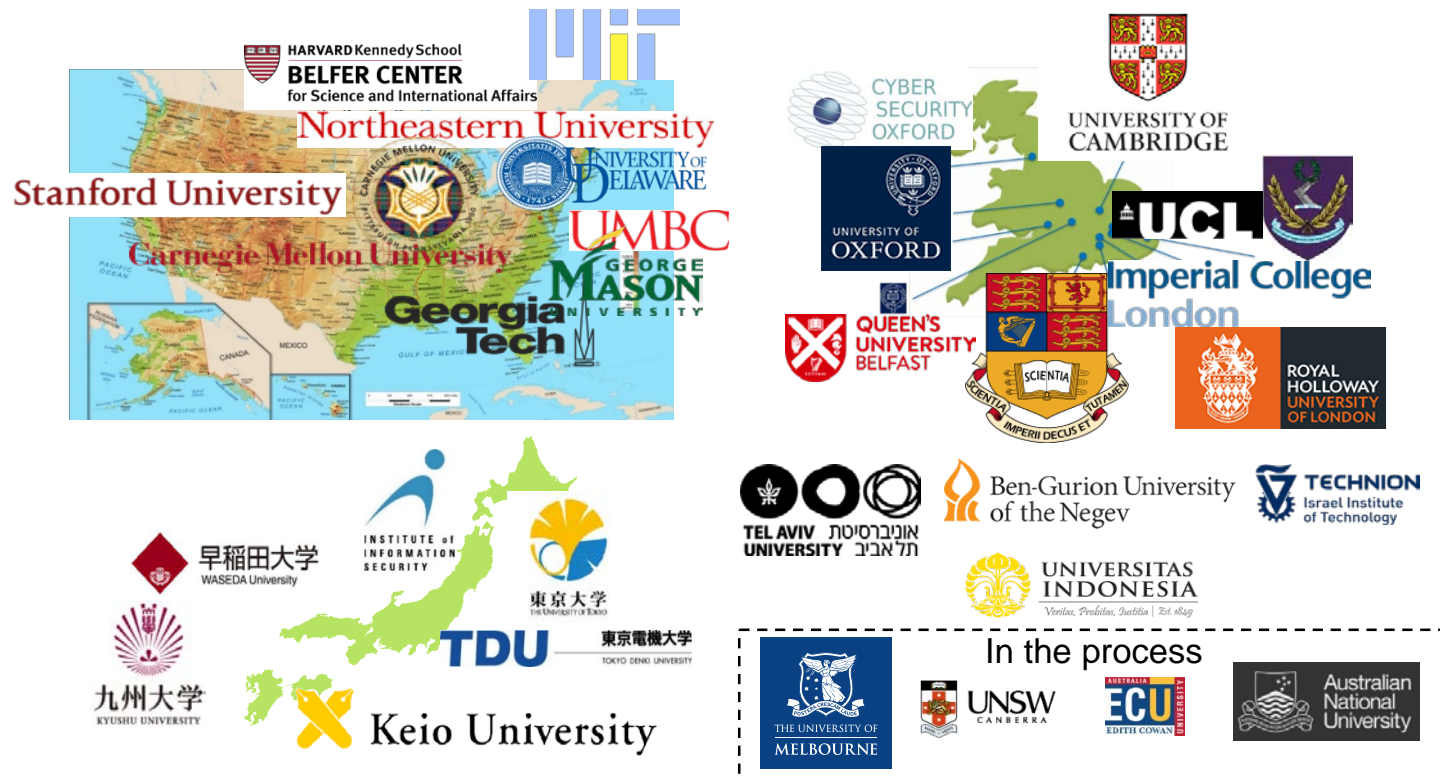
INCS-CoE has been the backbone of the International Cybersecurity Symposia series since 2016:

- Twice a year rhythm to hold symposia at Keio Mita Campus, Tokyo

- Last July 11-12, 2019, we had more than 500 people participating

- The 9th symposium will be December 11-12.

- Continuous supports are from governments, industry, and academia from the US, UK, Israel, EU, Australia, and Japan (some selected VIP to come to the Symposium in the past are below)

Taro Kono
Minister, MOF
Japan

Seiko Noda
Minister, MIC
Japan

Bill Haggerty
AMB to Japan
U.S.A.

Paul Madden
AMB to Japan
UK

Yaffa Ben-Ari
AMB to Japan
Israel

Patricia Flor
AMB to Japan
EU

Arifin Tasrif
AMB to Japan
Indonesia

Richard Court
AMB to Japan
Australia

With this newly ratified new international Charter in July 2019 and more formal structure, INCS-CoE can:

- Govern single authorized INCS-CoE entity for academia, industry, and government towards sustainable global structure

- Handle international member agreements legally acceptable by multiple institutions in multiple countries

- Structure more committed participation for international research, education, and policy studies

1. Research:
   - Global Supply Chain
   - Trusted Services
   - IoT & OT

2. Policy
   - Cross border data free flow with trust
   - Information Sharing
   - Privacy

3. Education
   - C2C CTF (Country to Country Capture the Flag)
   - Professional Certificates
   - Increasing Degrees (Ph.D., Master, Bachelor)

- **WG1: IoT and OT** Imperial, Royal Holloway, UMBC, Northeastern, Keio - Best practices in industrial control systems (ICS) in UK, US, Japan **=> THE INTERNET OF THINGS AND OPERATIONAL TECHNOLOGY**

- **WG2: Information Sharing** UMBC, Northeastern, Keio - STIX/TAXII standards and sector-by-sector conversation for ISAC, SOC collaboration.

- **WG3: Training and Exercise** CMU, MIT, Keio - CMU/Keio joint CISO program in Tokyo **=> 5-year C2C (Country 2 Country) Global CTF plan**.

- **WG4: Smart Cities** Delaware- Risk analysis with multi-critical infrastructure and cascading effects with simulation for global cities.

- **WG5: AI for Cybersecurity** Ben-Gurion - Use Cases of AI for cybersecurity as to how attackers utilize AI to hide their attacks undetectable.

- **WG6: Trust Services** Keio – Research mechanism of authenticity for variety of services **=> IMRT (International Mutual Recognition Technical) – WG.**

Corporate Members:
Hitachi, NEC,
Fujitsu, Cisco,
Adobe, Northrop
Grumman

Thank you
for your
participation
and supports!

incs-coe.org