

Cybersecurity cooperation between France and Japan

Intermediate workshop: October 29 and 30, 2018
&
Satellite Meeting: October 31st

Keio University, Tokyo
Workshop Chair: Professor Mitsuhiro Okada

Purposes:

- The annual meeting of the Japanese-French cooperation on cybersecurity held at springtime alternatively in France and in Japan. This 2 days intermediate workshop has for purpose to rapidly share and organize our cooperation on the two specific topics of cybersecurity of IoT and AI.
- We take this opportunity to have a satellite meeting on informatics ethics on October 31.

Participation to the workshop and the satellite meeting is only on invitation: if your are interested to attend, please send a mail to:

logic@abelard.flet.keio.ac.jp, ko-nakao@nict.go.jp, claudio.kirchner@inria.fr

Place:

**Oct.29th-Oct.30th , Meeting Hall, 8th Floor of the EAST BUILDING, Mita Campus,
Keio University: 7 minutes walk from JR-Tamachi or subway Mita or Akabanebashi**

Campus Map: <https://www.keio.ac.jp/en/maps/mita.html>

Building #6 for 29th and 30th. #12 for 31st Satellite Meeting

Workshop Office:

Mitsuhiro Okada Lab

Global Research Center for Logic and Sensitivity

Keio University

2-15-45 Mita, Minatoku, Tokyo 108-8345, Japan

Email: logic@abelard.flet.keio.ac.jp

Program of October 29th: IoT security

9:45 Registration

10:00 Opening: Claude Kirchner (Inria) and Koji Nakao (NICT)

10:15-11:00: Keynote by Prof. Tokuda (Chairman of NICT)

Evolution of IoT and Cybersecurity Research in NICT

11:00-11:15 Break

11:15-12:00: Keynote by Prof. Hervé Debar (IMT)

Cybersecurity for Industry 4.0

Security Issues and Mitigation in Ethernet POWERLINK

12:00-13:00 Lunch

13:00-14:45: IoT market/regulation, IoT applications

IoT Marketplace in Japan, Kosuke Ito (CCDS)

VPP (Virtual Power Plant) system and IoT, Masaki Umejima (Keio Univ.)

Introduction on systemic risks of IoT (short talk: 15'), Kavé Salamatian (University of Anncsey & Inria)

14:45-15:55: 5G IoT convergence, IoT Smart Cities

5G IoT convergence, Satoshi Konishi (KDDI),

WG6 Network cybersecurity interim update: focus on IoT, Thomas Silverstone (Shibaura Institute of Technology)

15:55-16:30 Break

16:30-18:00: Fundamental Technologies for IoT, IoT Data Protection (Using visio conf. To get the access code, contact claudio.kirchner@inria.fr)

Towards Low Energy Ciphers for IoT, Prof. Takanori Isobe (Univ. of Hyogo)

Towards Future-Proof, Secure IoT with Open Source Code and RIOT,

Emmanuel Baccelli (Inria) **visio from France

18:00 Closing

18:30 Dinner

Program of October 30th: AI and Cybersecurity

9:45: Registration

10:00 Opening: Claude Kirchner (Inria) and Koji Nakao (NICT)

10:15-11:00: Keynote by Prof. Jun Murai (Keio University)

Title to be announced

11:00-11:15 Break

11:15-12:00: Keynote by Prof. Kavé Salamatian (University Ancey & Inria)

A retrospective on almost 20 year of Artificial Intelligence and machine learning in Internet measurement research

12:00-13:00 Lunch

13:00-14:00 Formal approaches for AI-cybersecurity and AI-algorithmic ethics, privacy, fairness

1. Toshihiko Kamishima (AIST) Formal Fairness in Machine Learning / Data Mining
2. Current status of the discussions and researches on algorithmic-informatics ethics in the French and in the Japanese Groups, reported by Claude Kirchner, Kavé Salamatian, and Mitsuhiro Okada

14:00-15:30 AI for Cybersecurity

Toward the automation of cybersecurity operations using machine learning techniques, Takeshi Takahashi (NICT)

Defensive and offensive AI for embedded security, Thomas Perianin (Secure-IC)

Predicting Impending Exposure to Malicious Content by Learning User Behavior, Ayumu Kubota (KDDI Lab)

15:30-16:00 Break

16:00-17:00 Strategic discussion on organization and founding (Using visio conf. To get the access code, contact claude.kirchner@inria.fr)

Chairs: Claude Kirchner, H el ene Kirchner, Koji Nakao, Mitsuhiro Okada, Kav e Salamatian

17:00-17:30: Security related to AI (Using visio conf. To get the access code, contact claude.kirchner@inria.fr)

Ransomware detection with learning techniques, David Lubicz (DGA) **visio from France

17:30-18:00: Final discussion and closing

Oct.31st: Associated satellite meeting (Tutorial and Discussion)
New issues on technology and algorithmic ethics/privacy/fairness, related to
Digital/AI/ML

Place: Distance Learning Room, Basement 4th (B4) of the South Building, Mita Campus of Keio University.)

Building #12 on campus Map: <https://www.keio.ac.jp/en/maps/mita.html>

(Note that the South Building is NOT the same as the South School Building.)

10:00 Tutorial, Toshihiko Kamishima (AIST), Algorithms for Fairness-aware Machine Learning (in Japanese with English slides)

11:00 Pause

11:10 Claude Kirchner (Inria, CERNA and CCNE), Ethics and sovereignties in our digital societies

12:10-13:20 Lunch Break

13:20 Kavé Salamatian (University Ancecy & Inria), A comparative analysis of governmental AI strategies: from narrative, to utopia passing by ethics

13:50 Mitsuhiro Okada (Keio University), Why “formal” for algorithmic ethics research

14:10 Zoltán István Zárdai (Keio University, Tokyo, Japan) Joint work with Diederik M. Roijers (Vrije Universiteit Amsterdam, the Netherlands & Vrije Universiteit Brussel, Brussels, Belgium), On the Responsible Design and Deployment of Autonomous Agents

14:30 Claude Kirchner (Inria, CERNA and CCNE),

1- Citizen consultation on Bioethics in France: The 2018 experience.

2- Recommendations of CCNE on digital and health

15:00 Pause

15:30 Stéphane Grumbach (Inria), Sovereignty and global risks

16:00 Discussion Session

17:00 Closing