

Introduction of Cybersecurity Center of Kyushu University

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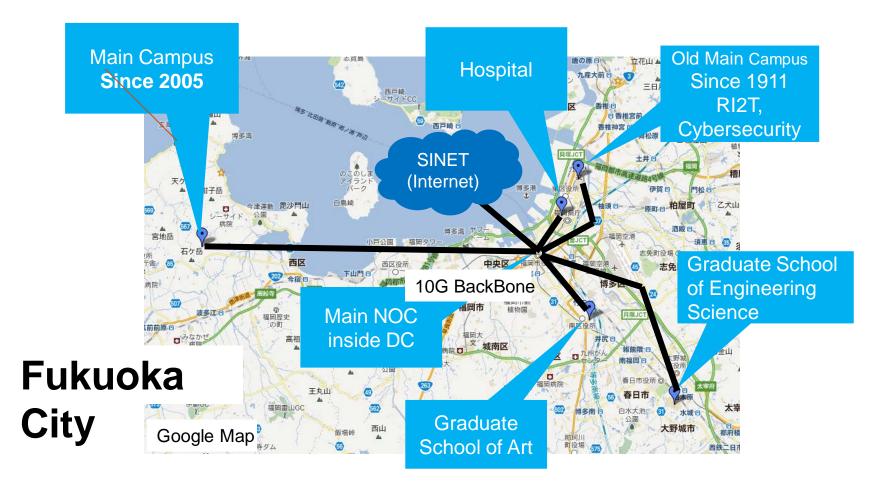
Fukuoka City



Kyushu University

20,000 Students and 10,000 faculties and officials

ASN 2508, 133.5.0.0/16



III: Information Infrastructure Initiative

Working Groups for IT Environment

IT Operation

Department Graduate School

Education

Cybersecurity Center

Research

- Super Computer
- Campus Networking
- Security
- Education Supports
- Identity Supports

- Engineering Letters
- Science
- Agriculture
- Economics
- Law
- Medical

Research Topics

- Education for Cyber Security
 - Education for all
 - Education for each
 - Education for Specialist
- Advanced Technologies for Cyber Security
 - Basic Researches
 - Encryption
 - IoT
 - Advanced Researches
 - Mitigation from Attacks
 - Detection of Unknown Attacks/Threats
 - Apply to Social / Real World
- Social Cyber Security
 - Social Information Assurance
 - Security for University ICT
 - Security for Hospital

Cyber Security Educations

Specialist Course Advance Course

Primary Course for graduate school

Advanced Course

Primary Course for under graduate school

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玉 **Economics** 芸 際 経 術 法 医 済 教 学 学 学 学 養 部 部 部 学 学 部 部 部 Specialist
Security Aware
Researchers

Security Aware
Students

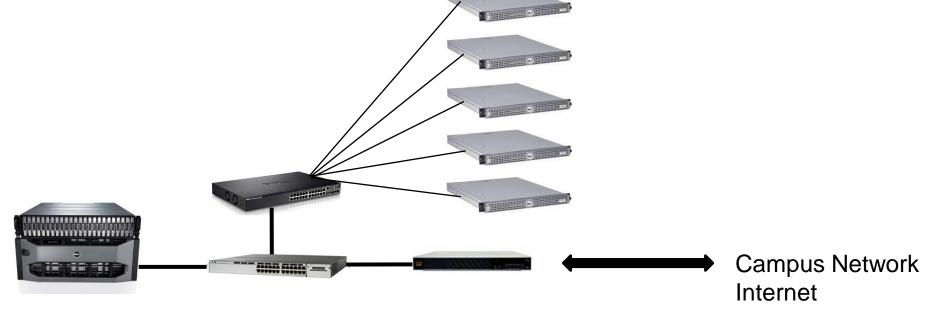
Security Aware Researchers

Security Aware Students

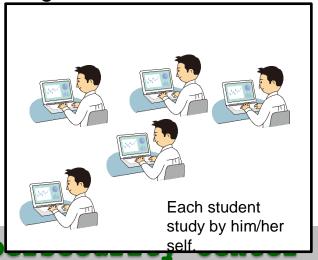
International



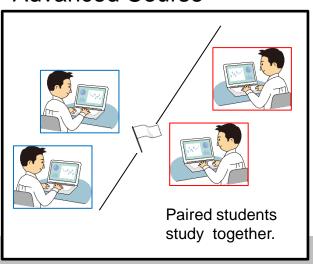
Cyber Range



Beginner Course



Advanced Course

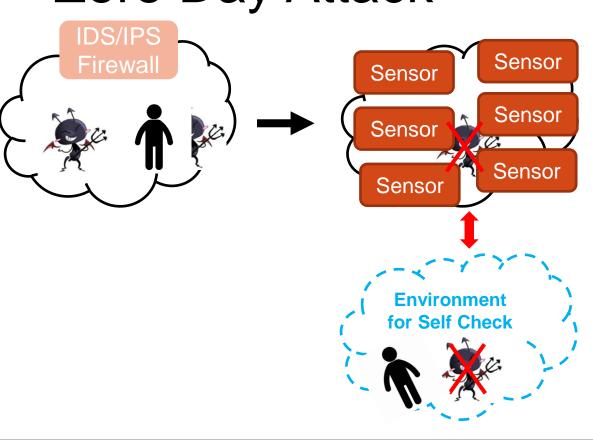






Advanced Technologies

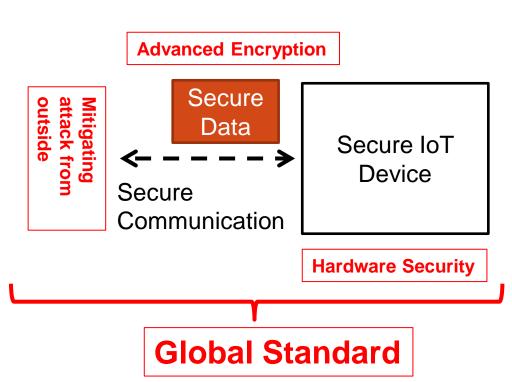
APT (Advanced Persistent Threat), Zero Day Attack



- Collaboration/Coop eration with Companies, Institutes and University in Japan and World
- Research and Operation in real networks
- Using AI

IoT Security

- Technology against IoT attack
 - IoT attack pattern is analyzed and the result mitigates future attacks.
 Attack pattern of PC servers can be used for mitigation of IoT device attack.
- Secure wireless IoT device and embedded Systems
 - IoT device itself becomes strong for Cybersecurity by hardware (e.g. Wifi) security
 - Advanced encryption
- Case study on IoT testbed



World of Cybersecurity Center

Education for Cyber Security Applying to Social Cyber Space Education Supports - ICT of Kyushu Univ. — All Kyushu Univ. Hospital Each Environment Research Specialist **Synergy** Social Cyber Security Foreign Partner RHUL Advanced Research – UMBC (US) UNSW (AU) Case Study IITD (IN Advanced Technologies for **Global Activities** Cyber Security