

STEM and National Security
December 10-11, 2018
Pacific Forum | Center for Rule-Making Strategies, Tama University
US Embassy, Tokyo, Japan

AGENDA

Monday, December 10, 2018

8:30 **Registration**

9:00 **Welcome Remarks**
Brad Glosserman

9:05 **Session 1: The Importance of STEM for National Security**
We are in the midst of a technological revolution marked by major advances in big data, cyber-physical systems, biotechnologies, genetic engineering, and the Internet of Things. Meanwhile, the demand for workers in STEM fields outstrip supply by a wide margin. What is the role of STEM in national security? Specifically, in what ways do new technologies and STEM knowledge enhance our ability to safeguard national security? When the national security workforce is 40% “high-STEM,” how do we ensure an adequate supply of people working in national security related fields?
Speakers:
Joan Johnson-Freese, Kazuto Suzuki

11:00 **Coffee Break**

11:15 **Session 2: The Role of Women in STEM and National Security**
Women are significantly underrepresented in the STEM fields. In the United States, they make up less than one-quarter of those employed in STEM fields, and this ratio is even lower in Japan. What effect does the underrepresentation of women in STEM have on policy outcomes in both countries? What is the relationship between (under)representation of women in STEM and women’s participation in national security policymaking? What initiatives are underway internationally and domestically to increase women’s participation in STEM and national security? What effect have such programs had and what challenges do they still face?
Speakers:
Stephenie Foster, Hisako Ohtsubo, Joan Johnson-Freese

13:00 **Lunch**

14:00 **Session 3: STEM Education in the United States and Japan**
Primary, secondary, and tertiary schools in the United States and Japan are attempting to enhance their STEM education to better prepare students for in-demand careers. What policies have national and local governments in the United States and Japan taken to promote STEM education? What role do quality elementary STEM experiences play in fostering continued STEM interest? What can be done to encourage increased participation of girls and young women in ICT and STEM studies?
Speakers:
Mai Sugimoto, Liv Coleman, Aki Yamada

15:30 **Coffee Break**

15:45 **Session 4: Challenges in Promoting STEM**

Governments face many hurdles in promoting STEM in general and specifically in the service of national security. What tensions exist between governments and academics reluctant to address national security issues? What issues surround the handling and dissemination of classified information? What are the benefits and challenges of encouraging innovations in dual-use technology? What is the need for or role of foreign students in the STEM fields?

Speakers:

Miyoko O. Watanabe, Simona Settepanella

17:15 **Session Adjourns**

18:30 **Dinner**

Hokkaido, Shinagawa Intercity 5F, 2-15-2 Konan

Tuesday, December 11, 2018

09:00 **Session 5: STEM/Computing Resources in Support of Cybersecurity**

As the demand for computing sciences and cybersecurity grows, the pipeline of people who are available to perform related jobs is shrinking. The need for cyber talent has never been greater. How can industry, government, and military effectively protect their networks? How can countries educate and train enough people to protect these environments? How can public and private interests cultivate an interest and support development efforts in cybersecurity career paths?

Speakers:

Koichiro Komiyama, Scott Jarkoff, Keiko Kono, Charles J. Cadwell

10:15 **Coffee Break**

10:30 **Session 6: Prospects for US-Japan collaboration and cooperation on STEM**

What are ways that the United States and Japan can work together to address the dearth of STEM talent working in national security and cybersecurity? How can the United States and Japan make these fields more gender inclusive? What lessons can the United States and Japan learn from the other's experience?

Speakers:

Heigo Sato, Michele Tempel, Aya Okada

12:00 **Lunch**

17:00 **Public Panel (American Center):** Recap of the discussions.

Moderator: Brad Glosserman

Speakers: Stephenie Foster

Joan Johnson-Freese

Aki Yamada