UW-TU:Academic Open Space (UW-TU:AOS)

An administrative framework to catalyze collaborative research, Sendai education and information exchange between UW and TU.

April 14, 2017



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UW-TU:AOS brings researchers from academia, industries and government together to discuss technological challenges, share their research, explore opportunities for joint projects, promote innovation and discovery, and provide an administrative UNIVERSITY of infrastructure to facilitate international cooperation







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Roles of the UW-TU:AOS Office

(1) Education roles:

- Provide a new paradigm for internal exchange and education through study abroad programs.
- Develop coordinated courses to cover complementary areas of subjects

(2) Research roles:

- Create an academic platform to build relationships and advance research collaborations between academic, industrial and governmental communities.
- Organize research forums/workshops for research matching.

(3) International administrative infrastructure:

• Facilitate communication at the administrative level to promote transnational understanding in research, education and exchange.

Targeted Areas of Research

<u>Thrust-1</u>: Next generation airpcraft materials and structures

- Multi-scale modeling and simulations of composite materials
- Surface treatment for enhancing bond-line strength and toughness of composite materials
- Composite materials having multi-functional properties

<u>Thrust-2</u>: Space, Robotics & International Public Policy (Near earth and beyond space research activities)

- Robotics and remote sensing in space
- Space habitats and planetary science
- Extra-planetary manufacturing

<u>Thrust-3</u>: Natural disaster science and engineering Socio-Scientific Issues:

- Community resilience to natural disaster-hazard events
- Design of better infrastructures

Scientific Programs:

- Multi-scale modeling, numerical simulations and field reconnaissance to improve earthquake, tsunami and landslide hazard.
- Scientific challenges for resilient energy systems

<u>Thrust-4</u>: IFS-Interdisciplinary Collaboration