

Nuclear Education at Tokai University

Shigeyoshi Matsumae, Founder of Tokai University

1955 Attended International Conference on Peaceful Use of Nuclear Energy, Geneva, Switzerland

1956 Established Department of Nuclear Engineering (now Department of Nuclear Engineering)

2024 the 68th anniversary; more than 4,000 alumni

**Tokai University Faculty
of Engineering**

**Tokai University Faculty
of Science**

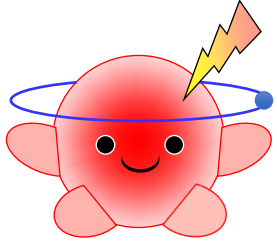


**Tokai University
International Atomic Energy
Research Institute**
Research Institute Director,
Shunsuke Kondo



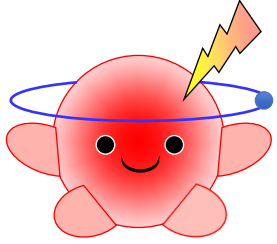
Undergraduate: Nuclear and radiation education as common subject and graduation research opportunity

Graduate school: Fostering professional human resources in the field of nuclear engineering, as a common curriculum



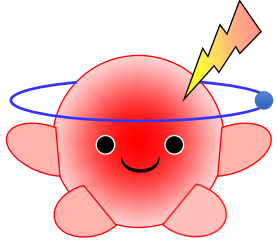
Challenges and Needs at Tokai University

- Today's discussion points
- Discussion Point 1: "Education on Nuclear Nonproliferation, Nuclear Security, and Nuclear Disarmament at Universities"
- Discussion Point 2: "Asian Regional and Global Collaboration, University and Research Institution Collaboration"



Challenges and Needs at Tokai University

- Discussion Point 1: "Education on Nuclear Nonproliferation, Nuclear Security, and Nuclear Disarmament at Universities"
 - Importance of Education on Nuclear Nonproliferation, Nuclear Security, and Nuclear Disarmament as Prerequisite for Peaceful Use of Nuclear Energy
 - As a Japanese university, it is our responsibility to convey the experiences, lessons, and determination mind of "Hiroshima and Nagasaki" and "Fukushima Daiichi Nuclear Power Plant Accident" to experts around the world.
 - What is the "safety culture" and "nuclear security culture" based on the premise that "the risk of core damage accident exists" and "the risk of illegal occupation of nuclear reactors exists"?
 - Fostering young experts in Japan and overseas experts (especially students from countries considering new introduction of nuclear power)



Challenges and Needs at Tokai University

• Discussion Point 2: "Asian Regional and Global Collaboration, University and Research Institution Collaboration"

Educational program in collaboration with IAEA and Tokai University (Nuclear Safety Education Field)

<https://www.u-tokai.ac.jp/news-campus/931141/>

One of the training programs that the IAEA has been conducting around the world since October 2017 to develop the next generation of leaders for the safety of nuclear energy and radiation.



Held at Tokai University, Shonan Campus, Feb. 2024
Participating countries: Indonesia, Kazakhstan, Malaysia, Thailand, Vietnam, Philippines, Mongolia

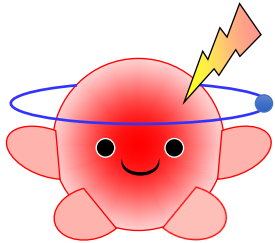
Future Plans (to be recruited)

5th IAEA International School: Nuclear and Radiation Safety Leadership, **Feb. 24–Mar. 4, 2025**

The 10th IAEA Nuclear Safety Standards Training Course, **Mar. 17-21, 2025** (10th Anniversary)



Deeper understanding of the safety and security interface may an important issue, now.



Challenges and Needs at Tokai University

Collaboration between JAEA-ISCN and Tokai University

- For students learning about nuclear energy for the first time at university

"Nuclear nonproliferation, nuclear security, and nuclear disarmament" are prerequisite literacy for learning about the use of nuclear energy, but there are only a limited number of specialized teachers who can teach these subjects, so we have high expectations for ISCN. Teaching materials with a sense of hands-on experience (sealed tags, remote VR, etc.) are also attractive.

- For graduate school student (example)

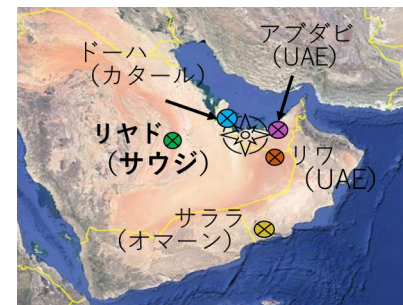
- International students from the United Arab Emirates (UAE), Saudi Arabia and Indonesia participated in **the summer school at JAEA-ISCN**. The research themes of nuclear non-proliferation and nuclear security are global and suitable for international students.
- Preparing textbooks for the "Nuclear Security" curriculum in Saudi Arabia: **after studying at ISCN**, the textbooks was compiled at the university.

<https://www.u-tokai.ac.jp/ud-engineering/news/8560/>

- Accident Impact Assessment of UAE Power Plant Severe Accident on the Surrounding Area
: Analysis was carried out at the university after receiving **guidance on atmospheric transport modeling (ATM) at ISCN (HYSPLIT code: NOAA)** at the University



By Director Inoue
Discussion Guidance



Assessing the Accident Impact of the
UAE Barakah Nuclear Power Plant