

<Tentative Translation>

NEW STUDENTS FROM 15 DIFFERENT COUNTRIES AND REGIONS –Why All OIST Students Undertake Studies Beyond Their Field

Unlike many other universities in Japan, Okinawa Institute of Science and Technology Graduate University (OIST) starts its academic year in September. On September 3rd, OIST held the annual Welcome Ceremony to present the new class of 2018. There are 35 students from 15 countries and regions this year, and 30 of them took part in the ceremony.

At the OIST Welcome Ceremony, it is customary for new students to introduce themselves in front of the current students, staff, and professors sitting in the auditorium. This year, there was a current student who looked on with a deep feeling. It was Mohamed Atwa, aka Moe, a second-year Ph.D. student at OIST. He recalled a year ago when he was on the stage and introduced himself, full of expectations for the future.

This year's first-year students also came from many different countries and regions, representing this globalized world. The overall ratio of OIST's male students to female students is 6:4, and the first-year's ratio is 4:3. Moe believes that in the world of science, diversity brings creativity. Certain countries, races, or genders should not form a majority. Therefore, he felt happy to see this diverse first-year group and thought it reflected OIST's core values very well.



Welcome Ceremony for the class of 2018.

Moe was born in a small, rural town south of Boston, Massachusetts, to an American mother and an Egyptian-born father. When he was fourteen he moved to Cairo, the capital of Egypt, with his family. At the local school, his classmates told him, "You are too American to be an Egyptian," and he did not get along with them.

It was science, his favorite thing, that supported Moe's morale during this period in his life. He was devoted to his studies and was awarded a full scholarship to study material science and engineering at one of Egypt's leading science universities. Later he got a master's degree in nanotechnology at KTH Royal Institute of Technology in Sweden.



Moe has always lived in diverse environments, including the United States, Egypt, Sweden, and Japan.

Then, he began working at the University of Tokyo as an intern because he was interested in Japanese culture with its deep history of cutting-edge science and technology.

But it was a feeling of isolation and alienation that filled Moe's life in the big city of Tokyo. One day, while in his laboratory on the University of Tokyo's Hongo campus, he found a flyer. It was a flyer for OIST Café, which OIST holds outside of Okinawa to recruit students. He participated in the event and was drawn into a video presenting the brilliant OIST campus, surrounded by an azure sea and lush greenery: a study environment impossible to find in big cities!



Moe at the graduation ceremony of Ain Shams University.

Moe sent his application documents to OIST, passed the pre-selection and was asked to participate in the Admissions Workshop. From his arrival to his departure, he was continually greeted by many smiles. He felt at home in Okinawa; it reminded him of his hometown. The feeling may have come from these interactions with people within a small community, but for him, Okinawa has now become a place where he feels truly at home

During the Welcome Ceremony, some of the new students mentioned their plans to change their specialty, such as one who said, "I studied physics during my undergraduate degree, but I would like to study neuroscience here." There are reasons why students who are interested in research in different fields come to OIST.

OIST includes interdisciplinary research along with an international university environment in its central concept of education and research. Interdisciplinary research and exchanges extend beyond the boundaries of a single discipline. To make this happen, OIST does not have departments, and the campus is designed to encourage researchers from various fields to interact frequently.

All first-year students should go through the program called “Laboratory Rotations” and study in at least three different laboratories and then decide the research group to prepare their PhD thesis. At least one of the rotations shall be outside the specific field of the student’s studies.

In Moe’s case, he was hoping to do energy-related research that would be useful in the near future and in the real world. Therefore, for his first rotation, he joined a research group where he related to their work on the development of lithium-ion batteries. For his second rotation, he utilized his background in materials science when he worked with graphene, an extremely thin material—only one carbon atom in thickness. Finally, he worked in a group that studies Attention Deficit Hyperactivity Disorder (ADHD) with a psychological and neuroscientific approach. He was assigned to compare differences in the movements between children with ADHD and those without.

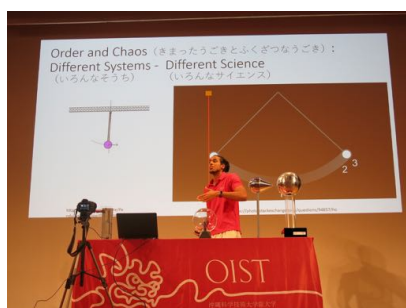
After these three rotations, Moe decided to conduct research over the next four years in the Quantum Materials Science Unit led by Professor Yoshinori Okada. In this research group, Moe will tackle the project to develop new energy sources for the next generation while taking full advantage of the materials science, engineering, and nanotechnology expertise he has accumulated so far.



Moe can’t stop talking when it comes to research. Here he explains his project on the development of new energy.

As he worked on the research outside of his own field during his last laboratory rotation, Moe learned the difference between studies targeting substances, which he had been doing up until this point, and those targeting humans, especially by working with children with ADHD. This experience made it possible for him to see things from a different perspective and, furthermore, to have the motivation to collaborate with people. “And that is what scientists should not forget,” he says.

Professor Okada, who has a strong desire to pursue interdisciplinary research, often discusses the ideas of Moe and others, not only within his own group, but also with other research groups as he tries to develop joint research opportunities with them. Moe chose his laboratory because he likes this approach.



Using simple terms, Moe explains science to children on the remote island of Okinawa. OIST students are often actively involved in such science outreach activities.

A PhD at OIST encompasses more than research. As the university has such a small number of students, each student is expected to serve in many roles, and the students seem to enjoy volunteering their time to these roles. In his first year, Moe accumulated numerous experiences including becoming a speaker for the very first TEDxOIST event.

He joined an OIST professional development project to introduce OIST's multinational culture at a local elementary school. He went to a remote island to teach science to children there. He became a member of the Student Council and acts as the communication officer; the Student Council is a group of student representatives who work on various projects to make OIST a better place. "There are few things that I am more interested in than science, but if there are any, they are those who do science. OIST has really interesting scientists so I wanted to connect these people with local people. That's why I became a communication officer," Moe says. When he's not working, Moe goes to a driving school to study for his Japanese driver's license test and he practices the Brazilian martial art Capoeira. He is always in a hurry in the corridor, and his eyes are always shining brightly.



Talking with Andreas Thomasen, another member of the Student Council. OIST is a really comfortable place for Moe who has not felt at home for a long while due to his two identities: American and Egyptian. But here, he has found many people who have a background similar to his.

Students working toward a PhD are those who really like doing research. Beyond that, students coming to OIST are most likely those who enjoy contributing to society, within this small but diverse community and beyond. We want first-year students to be active not only in their favorite science but also beyond. Though, there's no doubt they will be, because we can see their shining eyes glittering like Okinawa's beautiful sea and, of course, because students like Moe have already paved the way.

Tomomi Okubo, The Media Section, OIST