

Congratulatory Remarks

I would like to offer my heartfelt congratulations to the 309 graduates of the master's program, most of whom are from the 2nd class of the Graduate School of Science and Technology established in 2018 and to the 46 graduates of the doctoral program, most of whom are from the 1st class of the Graduate School of Science and Technology. I would also like to extend these congratulations to their families who are able to see this day as well.

Also, on behalf of NAIST, I would like to express our gratitude to all the individuals and groups who have supported both the international and Japanese graduates in their studies and lives.

This is the 28th year since NAIST first accepted students and produced its first graduate, and, including the graduates here today, NAIST has conferred 8,671 master's degrees and 1,785 doctoral degrees, including those who received their degree through submission of their doctoral thesis. The total number of graduates has reached a total of 10,456.

NAIST's network of graduates is expanding throughout the world. Among today's graduates are 34 international students from 12 countries and regions, bringing the total number of NAIST graduates from overseas to 788 from 68 countries and regions.

From when the new coronavirus was first confirmed in Japan in late January last year, the area affected by the new coronavirus infection expanded throughout Japan and there were fears of an explosion of infections. From early April when a state of emergency was declared for certain areas of Japan and in mid-April the state of emergency was then extended to all prefectures, Nara prefecture was under a state of emergency for about one month. Due to this, activities at NAIST were restricted in various ways.

This infectious disease disaster has yet to subside and with the 3rd wave of infections a state of emergency was once again issued for certain areas. Today's graduation ceremony is thus being held on a reduced scale, with only student representatives attending, under strict measures in place to prevent the spread of infection.

This is a once-in-a-century world-wide pandemic disaster. I salute you for undertaking your doctoral research and your hard work during such circumstances in obtaining your

degrees today.

Of the master's course graduates, some will continue their studies in the doctoral program to become researchers, and others will enter the workforce, starting new lives in society as professional researchers and engineers. Also, many of the doctoral course graduates will start their careers as professional researchers. How do you envision your future?

Currently, science and technology are facing an era of revolutionary changes. The keywords in science and technology are the Internet of Things (IoT), Artificial Intelligence (AI) and Data Science, which are supported by the progress of ICT technology, both in hardware and software.

With these ICT technological innovations, research methodology throughout all fields has been reevaluated, and the influence of this in all science and technology fields has become prominent. Even if you only look at the core academic fields at NAIST for example, in the field of biological sciences the research area called bio-informatics has been established, and in materials science the presence of materials informatics, a new research area, is increasing. Of course, researchers from information science fields are coming forward to pursue new developments in these areas.

Revolutions in science and technology in various fields will have great effects on society. It is currently thought that, in the 2040's, the majority of the jobs existing today will disappear and new job types will appear, greatly changing the structure of industry. This means that many people will be faced with changing careers and, along with calls for digital transformation (DX), there are signs of this shift already being seen in certain occupations.

In the 2040's though, actually you will be the central part of society.

So... let me ask all of you. What do you think will be required of you in the future? The following 4 attributes are often used in reference to researchers in science and technology.

1. A 'spirit of challenge' to cultivate new knowledge based on your own knowledge, creativity and research skills.

2. The ‘well-roundedness’ to grasp broad, comprehensive views of various compartmentalized knowledge.
3. ‘Multi-disciplinary understanding’ to produce new academic fields through cooperation and collaboration with researchers from various fields.
4. A ‘global perspective’ to strive to contribute beyond national borders, obtaining global recognition of your original research within the global science community.

These attributes, a ‘spirit of challenge’, ‘Well-roundedness’, ‘Multi-disciplinary understanding’ and a ‘global perspective’, do not solely apply to those who will undertake research. Regardless of your profession, I hope you lead the way to the next generation as talented resources that can open new research fields by flexibly responding to societal changes through a holistic understanding across both humanities and science.

And for this, I believe it is important to have the spirit to ‘take the first step forward’ in any activity, to constantly maintain a sense of challenge and a pioneering spirit.

NAIST’s establishment of the Graduate School of Science and Technology through the merging of the 3 graduate schools of Information Science, Biological Sciences and Materials Science was undertaken considering this era we are living in and what we will face.

At NAIST you have not only gained academic expertise in your respective fields and their interdisciplinary fields, but also, through your thesis research, you have the valuable experiences through which you developed the ability to identify problems, explore and implement solutions to these problems, evaluate the outcomes, and write academic papers on the outcomes through discussions with people having various viewpoints. These experiences become a great asset.

I am confident that the difficulties faced at times, including the unforeseen conditions due to the new coronavirus infection, along with the network you have created here, and the ‘kizuna’ or individual ties you have made, will assure your successful future.

NAIST’s role does not end with us sending you out into society. Rather, the NAIST faculty and staff consider our role as facilitating the building of strong relationships with alumni so that each and all of you will be able to actively approach new challenges and continue your creative lives in the remarkably developing science and technology and

society.

Every year we hold our Homecoming Day along with the Fall Open Campus and hold an informal gathering with NAIST graduates to exchange opinions in cooperation with the NAIST Alumni Association. We hope to continue holding this kind of event, so please return to our campus at that time as role models for our future students. In addition to these current coronavirus-affected times, we are hoping to continue our new Homecoming Day format utilizing both real-world and virtual participation in the post coronavirus world.

Also, in addition to the alumni association activities at the center of our graduate networks, we want to strengthen our international network of graduates who are active around the globe through our international satellite offices and individual overseas alumni associations. We hope that you participate in these pursuits.

As I mentioned earlier, the world is not yet free from the difficulties that have arisen from the appearance of the new coronavirus. There are probably even more new difficulties awaiting us in the future, but we must overcome these. “There is no night that doesn’t dawn.” For this, be ready to ‘take the first step forward’ is a necessity.

Once again, I would like to congratulate you all and in conclusion, we look forward to your future endeavors and success.

YOKOYA Naokazu, President, Nara Institute of Science and Technology

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