

Message for the Inaugural Issue of the *University Bulletin of Nagoya Institute of Technology*

The *University Bulletin of Nagoya Institute of Technology* has been inaugurated as part of a range of activities to commemorate the founding of Nagoya Institute of Technology.

Creativity is progress. Without creativity, there is no culture or civilization. Here in Japan, we are poised to create a new nation following the destruction wrought by war. We are about to clear the deep woods of feudalism to build a peaceful land of democracy. We are striving to bring civilization into bloom by tilling the wasteland of barbarism and sowing the seeds of culture. This must not be done, however, by blindly following prescriptions handed down by the United States, or simply copying Soviet models touted as the most progressive, either of which would only produce imitations. The building of a new nation is a task belonging to the Japanese people, and must be achieved by Japanese creativity. Although creative achievements can only be attained by overcoming numerous challenges, a creative act in itself represents hope, light and joy. For those of us who clear the wilderness and till the land, even the stout tree stumps in a deep forest or the huge rocks in a wasteland can become fountainheads springing up encouragement from the depths of suffering. I believe that happily and willingly confronting challenges is an outlook shared by many of us in Japan today.

There have been sweeping changes as well to legislation pertaining to learning and education. Nagoya College of Technology and Aichi Prefectural College of Technology have been merged to become Nagoya Institute of Technology (NIT)—a new university born out of a new legislative system of a new nation. This means we are tasked with uprooting the old stumps of Nagoya College of Technology and Aichi Prefectural College of Technology, and removing large rocks to create a peaceful garden of learning conducive to the flourishing of a completely new culture. We must not emulate prewar universities, nor indiscriminately embrace U.S. or German models of university education. Instead we can explore the merits of these antecedents while applying our creativity as faculty, staff and students to make NIT a genuinely excellent institution without parallel. Wholehearted dedication to this colossal task brings nothing but sheer creative joy, and shines a bright beacon of hope on the university's inception.

Encouragement of academic and scientific research is among a university's most important missions. This is not only because such research is a significant component of culture that contributes to our culture and industry, but also because it firmly substantiates the education provided to students by the university as its primary mission, and is the source of the prestige and authority validating the education. Education and research constitute the absolute responsibility running through every aspect of a university, and the greatest mission assigned to university educators. **Good teaching requires good research; and good research will reflect favorably on education. Education and research are inseparable, like the two wheels that must go hand in hand in order for the cart to run smoothly.** Education and research are creative activities educators are tasked with, and like all creative tasks involve both endless torment and pleasure. Moreover, significant cultural and industrial innovations and advancements cannot be expected without the solid foundation of academic and scientific research. However, overwhelming challenges in this country, especially after

the war, have forced the bulk of private-sector research to scale down or terminate altogether, leaving new universities established under the post-WWII School Education Law to carry forward the baton of most if not all of Japan's basic and applied research. As one of these postwar universities, **NIT in particular must exert its unique strengths as one of just four single-faculty universities devoted to engineering in this country, demonstrating what distinguishes it from universities comprising multiple faculties or colleges.** One way of doing this is **closely collaborating or partnering with industry as well as science and tech professionals to conduct real-world education and research, instead of becoming a conventional "ivory tower" university,** hopefully achieving the ideal of inspiring one another; helping one another; and benefiting one another. In order for this to happen, **research at NIT will do well to first capture a real-life problem posed by industry, and in the course of exploring solutions establish deep and extensive roots in the soil of scientific investigation, rather than moving on to practical application only after completing a foundation of scholarly knowledge, as is often the accepted practice at many multi-faculty universities,** though of course the latter approach may be perfectly valid depending on the area of specialty you pursue.

Here in this inaugural issue we showcase the research achievements to date of the faculty members of Nagoya College of Technology and Aichi Prefectural College of Technology. The collection may lack unity and consistence in quality but is noble nonetheless, because it is a record of the fortitude of the scientists and engineers who persisted through the harsh conditions brought by a restrictive milieu and war, the ravages of war, and war defeat. At the same time, my heart goes out to the many faculty members whose research work was lost to war damage.

I sincerely hope this *University Bulletin*, inaugurated to mark the founding of Nagoya Institute of Technology, will shine brighter year after year, illuminated by the splendid fruits resulting from the hard work of faculty members passionately committed to rebuilding this country, and be of service to society and industry.

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