Building a better future with science

Strong ethics and an emphasis on multidisciplinary research underpin efforts at Tokyo University of Science to solve global challenges.

Since its establishment in 1881, the Tokyo University of Science (TUS) has been progressing science and technology at a dizzying pace. With the emergence of environmental and energy challenges as critical global issues, the university’s founding principle of advancing science and technology in harmony with nature is more relevant than ever before. Within a strong ethical framework, scientists and engineers at TUS are striving to solve global challenges and make the world a better place through science.

Undergraduate programmes at TUS provide students with a solid foundation in specific disciplines for development and success, while graduate students are encouraged to hone their skills in an interdisciplinary environment. In particular, students in the advanced stages of their studies can conduct research at the frontiers of their disciplines, while interacting with accomplished scholars and scientists. Research and education go hand in hand at TUS, where researchers tackle important problems that often require scientific knowledge from multiple disciplines.

TUS has established various institutes, including the Research Institute for Science and Technology and the Research Institute for Biomedical Sciences, to actively pursue research that pushes disciplinary boundaries both within the university and globally. It is committed to achieving these research goals with meaningful interdisciplinary cooperation based on a thorough understanding of the foundations of academic fields, and by transcending the distinction between theory and application. TUS hosts nearly 30 research centres organized under the auspices of these interdisciplinary institutes, such as the Center for Fire Science and Technology and the Photocatalysis International Research Center. These research centres and projects connect different fields and contribute to the development of science and technology in emerging multidisciplinary fields.

Photocatalysis is one of the university’s research strengths. Akira Fujishima, the president of TUS and director of the Photocatalysis International Research Center, along with his colleagues, introduced the world to semiconductor photocatalysis on titanium dioxide during his graduate study. Since then, photocatalysis has become an important area of science and technology that may provide solutions to the ever-increasing demand for energy as well as environmental concerns. The Photocatalysis International Research Center researches self-cleaning properties, environmental purification and artificial photosynthesis. The centre has designed products and materials that are accessible to the public to increase awareness about how photocatalysis is necessary for a green and sustainable environment. The centre actively collaborates with other research groups and hires young researchers from across the world with the goal of being a top-class photocatalysis research centre.

TUS also researches fire science and supports the development of safety technology designed to protect lives and property. The Center for Fire Science and Technology is establishing a network for promoting fire safety information in Asia, with the aim of controlling fire risks in various Asian cities. It is equipped with a laboratory building whose scale and functions are world class. TUS also has Asia’s first specialized graduate school in fire science, the Graduate School of Global Fire Science and Technology, which trains young researchers and engineers.

Research and development at TUS have received global acclaim. Yoichiro Iwakura was ranked by Thomson Reuters in the top 110 of Highly Cited Researchers in immunology in 2014 and 2015. He is studying the generation and analysis of human disease models using transgenic techniques.

TUS takes great pride in its broad scope and illustrious history. It remains fully committed to the mission of conducting education and research to improve the world through science and technology.

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Tokyo University of Science (TUS) was founded in 1881 and is one of the oldest science and technology focused private universities in Japan. At its four campuses in the Tokyo metropolitan area and at its sister university TUS, Suwa, TUS researchers concentrate on their mission to build a better future with science.

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* based on 2014 collaboration score