

Innovation of Electrical, Electronic and Communication Engineering

The Department of Electronics and Bioinformatics is a significant unique department, which includes the interdisciplinary research fields of the traditional electrical, electronic and communication engineering integrated with life science and biotechnology.

The electrical and electronic engineering is one of the important fundamental engineering supporting our current lifestyle. This engineering potentially has a wide range of research fields, such as electronics materials, power electronics, system control, information technology and internet technology. The electronic and communication engineering is composed of computer science, wired and wireless communication, semiconductor devices, optoelectronics and information control systems. The remarkable progress of this engineering is always expected as an important key technology to support our technetronic lifestyle in this century. The Department of Electrical and Electronics Engineering, and the Department of Electronics and Communication Engineering have been established their educational and research programs based on electrical and electronics circuits, information processing, information control, and electromagnetics. With integration of these departments, the Department of Electronics and Bioinformatics challenges to expand the traditional research fields, and to discover feasible solutions for advanced engineering, such as integration of biotechnology and electronics engineering, electronic application of information control mechanism in living organism, and symbiosis between brains and machinery.

The Department of Electronics and Bioinformatics has basic course concerning life science and biotechnology in addition to the conventional course in the Department of Electrical and Electronics Engineering, and the Department of Electronics and Communication Engineering. The interdisciplinary research program includes integration of biotechnology and information technology (bioinformatics), integration of nanotechnology and living system (nanobiotechnology), and integration of biology and medical engineering (systems biology) in addition to the research field of the traditional electrical, electronic and communication engineering. The mission of this Department is to provide human resources who can contribute to not only the traditional electrical, electronic and communication engineering society, but also human healthcare and pharmaceutical industry.

Fields of Scholarship

