# Department of Information Display

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## What is Information Display?

Nowadays, the visual displays, such as TV, PC monitor, notebook monitor, and mobile phone, have become the most powerful way to deliver the information. Information Display is an inter-disciplinary science and technology dealing with these visual displays in design, simulation, manufacturing, processing, characterization of various types of electronic display devices and systems as well as the interaction between displays and human beings. Information Display is classified into thin-film transistor liquid-crystal display (TFT-LCD), plasma display panel (PDP), organic light-emitting diode (OLED) display, field emission display (FED), three dimensional display (3D), and so on. Students majoring Information Display study physics, chemistry, optics, materials science, manufacturing, electronics, computation, design and simulation for display. Further, students have the chance to study wearable display, flexible display, transparent display and other novel displays.

### Information Display at Kyung Hee

Kyung Hee University has an Advanced Display Research Center (ADRC) in conjunction with TFT-LCD National Lab, with facilities to fabricate and characterize TFT-LCD, OLED and FED. Only Kyung Hee has the facility to make TFT-based display panels among academic organizations all over the world. The Information Display major pursues three core educational goals: first, training students to become practical research scientists, who will do R&D work on information displays; second, training students in display companies for six weeks as an internship; third, training students as technical managers who can manage display businesses and pursue globally competitive careers in display areas. In order to accomplish these goals, 1) we provide courses for students to obtain fundamental knowledge about information display and help them improve their creativity in areas of currently developed information displays such as LCD, PDP, OLED, etc. 2) we provide several practical educational programs, such as experiments and display industry internships, for students to directly apply their knowledge to real world displays. 3) we provide opportunities for students to study the latest display technology at such world-renown universities as the Ecole Polytechnique in France.

## **Degree Requirements**

To receive the Bachelor of Science in Information Display, a student must:

- complete a minimum of 130 credit units.
- satisfy the General Requirements of the College of Science.
- complete 21 units of Required Courses.
- complete 42 units of Technical Electives for information display.
- complete 48 units (maximum 56 units) stated in the common studies program and Humanities/Social Science Electives.
- acquire a minimum English proficiency test score of TOEIC 700 or equivalent.

#### Courses

#### Year 1

General Physics and Laboratory I & II, General Chemistry and Laboratory I & II, Calculus I & II, Introduction to Information Display I & II, Introduction to Computer Programming, Introduction to Digital Circuits, Display Internship 1

#### Year 2

Electric Circuits, Electric Circuits Lab, Engineering Mathematics I, Modern Physics, Intellectual Property Law, Display System, Electromagnetics, Introduction to Organic Chemistry, Engineering Mathematics II, Display Internship 2 Year 3

OLED, OLED Lab, Semiconductor, Display Optics, Quantum Electronics, Thin-Film Technology, Emissive Display, Emissive Display Lab, Photonics, Semiconductor Devices, Solid State Physics, Polymer Material, Display Internship 3

LCD, LCD Lab, Process Technology for Electronic Devices, Display Circuits, Device and System Simulations, Organic Electronics, Information Display Seminar, Display Lab, Display Internship 4, Thesis

#### Careers and Graduate Destinations

Students have diverse opportunities in their career development. For example, they can be scientists and engineers in the development, research, or production of diverse display industry fields, including display material, panel, system, and equipments. Due to the high demand for skillful, knowledgeable and experienced manpower in information display research and industrial area, we are offering such high quality education to them and training them to fulfill these requirements. Therefore, the graduated will have more opportunities to utilize their knowledge, skill and experience, and contribute to the development of the display industry. We also strongly recommend students graduate programs related to information display for their advanced studies.

## **Faculty**

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