Division of Electrical Engineering and Computer Science	Research field	High-speed Electronics	Lab. ID EC12
Laboratory web site			

Research subjects

Silicon Photonics: Photonic devices (high-speed photodetector, functional optical waveguide, etc.) fabricated by silicon LSI technology.
Organic Photonics: Light emittng devices (light-emitting transistor, laser, etc.) using organic materials.

Master/Doctor course: Education policy, curriculum, typical activity in the laboratory

Master course students: The research subject is decided by discussion with supervisor.
Doctor course students: Students find the esearch subject by themselves.
All students: Journal intoroduction (bimonthly), Progress report (weekly), Presentation at a conference, Writing the journal paper.

Daily life in the laboratory, etc.

All members decide the schedule by themselves.
They must attend the progress report and the journal introduction.

Message or comments by the laboratory faculty staffs

We hope for active students who like opoelectronics.

Recent Master theses in these 3 years (+ more if appropriate)

year.month	Thesis title (including English translation of Japanese thesis title)
2017.3	Basic study of optical power transmission for high efficiency
2016.3	Fabrication and characterization of organic light-emitting transistor using F8T2 active layer
2016.3	Fabrication and characterization of Si3N4 optical waveguide using CF4 dry etching
2016.3	Development of CAD Tools for Photonic Integrated Circuits, and Design of Functional Photonic Circuits using Directional Coupler
2016.3	Fabrication and evaluation of Ta2O5 rib type single mode optical waveguide by spin coating
2015.3	Fabrication and Characterization of Light-Emitting Electrochemical Cell using MEH-PPV
2015.3	Fabrication and Evaluation of Surface Emitting Laser using an Organic Material: Coumarin6
2014.3	Development of Ultra-Fast Photodetectors using SOI Wafer and Compound Semiconductor on Si Substrate
2014.3	Study on Reduction of Wavelength Dependence and Enhancement of Propagation Band of Silicon Optical Circuits
2013.3	Fabrication and characterization of the organic emission device using Alq3 and MEH-PPV
2013.3	Ferroelectric and optical propagation property of PZT, PLZT on Si substrate
2012.9	Waveguide-type Grating Coupler toward integration with Optical Waveguide and Vertical Injection-type Si Photodetedtor

Recent Doctoral theses in these 3 years (+ more if appropriate)

year.month	Thesis title (including English translation of Japanese thesis title)
2015.3	A study of ultrahigh speed optical integrated circuits on Si substrate

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