# 2006 「The International Priority Graduate Programs (PGP)」

#### $\sim$ Advanced Graduate Courses for International Students $\sim$

#### [1. Profile of the University]

①University Department	THE UNIVERSITY OF ELECTRO-COMMUNICATIONS Graduate School of Electro-Communications					
②President	MASUDA Takashi					
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6Enrollment (only GraduateSchool)		1	64 (include MEXT's Sholorship Students: 48 )			

#### [2. Outline of the Course]

Z. Outline of the Oourse				
①Course	A Degree Program Based on Cutting-Edge Optical Science Research			
②Degree	Doctor of Philosophy (3 years)			
③Graduate Course, Department	Department of Applied Physics and Chemistry			
	(Address) 1–5–1 Chofugaoka, Chofu, Tokyo 182–8585, Japan			
④Collaboration (Universities, Graduate courses, Departments)				
(5)Quota	12 Students (include MEXT's Schlorship Students: 3 ) (include Japanese : 5 )			
©Faculties	26 Professors (Full-time(only for this course):1 Full-time(at the department offering this course):24 Parttime: 1 )			
⑦Representative	Job Title Dean, Graduate School of Electro-Communications			
of the Course	Name Professor HAGINO Kojiro			

## Goals

In 2003, the University of Electro-Communications introduced the Innovation in Coherent Optical Science Program, which is currently the nation's only 21st century Center of Excellence (COE) program with an optical science theme. The program aims to develop optical science and technology as key disciplines in the 21st century and train young researchers and engineers from around the world. The Departments of Electronic Engineering, Information and Communication Engineering, and Applied Physics and Chemistry, with the latter at the core, all contribute to the multi-departmental educational organization offering doctoral courses.

The goal of the program is to systematically facilitate participation by distinguished exchange students in the course. Thus, the Research Exchange Student Special Program has been added to the Coherent Optical Science Course to provide an environment where driven and talented students from Japan and abroad can work hard in friendly rivalry while earning their degrees. We also wish to shape the foundation of the international human network, which will support optical science and technology in the 21st century.

## **Content and Characteristics**

The central idea of this doctoral program is to train capable researchers who have an international perspective and the ability to conduct independent research. A major characteristic of the program is to create an international environment where exchange students and Japanese students can work hard in friendly rivalry during their quests for doctoral degrees. We provide students the opportunity to study optical science and technology in a world-class research environment. We also provide an interdisciplinary educational environment, which overcomes traditional departmental boundaries.

This program offers young people from foreign countries a chance to earn their doctoral degrees while participating in and learning from the cutting-edge research being conducted in Japan. In particular, this program provides a unique environment where driven and talented Asian exchange students can develop to their full potential.

This program accepts all motivated exchange students, not just those doing research, from a number of channels. The university itself provides financial support, which is supplemented by contributions from outside foundations. Research exchange students will be considered for admission based on the development of their abilities.

# Education/Leadership Structure

#### Curriculum

The Coherent Optical Science Course incorporates optics-related curricula from the Departments of Applied Physics and Chemistry, Electronic Engineering, and Information and Communication Engineering, and systematically merges and connects these fields with today's advanced research. We also provide basic courses so that a variety of students from many countries can adapt smoothly to our research-based program. Courses in this program are predominantly conducted in English.

## Leadership Structure

We manage research leadership from a broad, interdisciplinary perspective with two advising instructors (an advisor and head advisor). Colloquiums and graduate seminars are generally conducted in English, but in order to stimulate active discussions among Japanese doctoral, master's and senior students, we actively encourage communication in Japanese. One full-time foreign associate professor is appointed to provide course/research leadership and to address any concerns.

# Active Involvement

We host optics seminars and research presentations that cross departmental boundaries. Generally, these are managed by exchange students and Japanese students working together, deepening their understanding through frank cooperation. Free debates in seminars and presentations further strengthen the students' understanding of each other's research and foster an environment that encourages original thinking. English is the official language, but Japanese is used as an aid.

# Japanese Language and Culture

Participation in Japanese conversation and culture is very important to broaden exchange students' post-graduate career choices. The International Exchange Center offers Japanese conversation courses and provides activities that allow exchange students to experience Japanese culture. We encourage research exchange students in the program to participate in these courses.

# Languages Used

English is the official language in our formal educational settings, but we actively encourage communication in Japanese as well.

# **Recruiting Methods and Target Countries**

Applicants are recruited mainly through collaborations with foreign universities using recommendations from designated instructors at these universities. Priority is given to recommended applicants. We also consider individuals who have reliable references from other sources. We accept applicants from all over the world, but especially encourage driven, talented students from Asian countries to apply.

# Selection Method

Usually, at least one member of the interview committee travels to the applicant's university, while other committee members participate in the interview via a teleconference. However, if an applicant's ability has already been demonstrated through participation in the JUUST exchange program, a short-term exchange program sponsored by the Ministry of Education, Culture, Sports, Science and Technology or by other means, a teleconferencing-only interview is acceptable. If a teleconference interview is not possible, we can accommodate applicants by conducting an interview via email, etc. under the appropriate circumstances. We urge students who are able to travel to Japan in person for their interview to do so as less effective interviewing methods may limit the chance of acceptance.