

Doctoral Program in Information and Communication Engineering

1. Introduction

Information and Communication Engineering is to study new theory, new methodology and new technology of all kinds of electronic, communication, information systems and related signal processing aspects based on information source coding, transmission, exchange and information networks. Based on information science and engineering, this discipline, with its goals to develop China's electronic information industries, focuses on the research, design, development and implementation of electronics and communication information systems. It includes communication and information systems on communications, as well as theory and technology on information signal and information processing.

2. Research Directions

- (1) Wireless networks and communications
- (2) Modern signal processing

3. Duration of studies

Full time PhD students are expected to complete their studies and earn their degrees in 4 to 8 years, and they will be disqualified from the program after 8 years.

4. Credits requirements

Students are required to complete at least 18 degree credits from courses in Section 5 with a minimum of 16 coursework credits and 2 obligatory courses.

5. Curriculum

Course No.	Course Name	Semester	Credits
<i>I. Fundamental Courses</i>			4
L371A002	Chinese	Fall	2
L371A003	Introduction to Chinese Classics	Fall	2
<i>II. Core Courses</i>			6+
L113A013	Basis of Modern Analysis	Fall	2
L113A014	Wavelet Analysis	Fall	3
L113A010	Matrix Analysis and Computation	Fall	3
L104B007	Space-time Wireless Communications	Spring	2
<i>III. Major Electives</i>			4+
L104C009	Modern Digital Communications Technology	Spring	2
L104C008	Advanced Signal Processing	Spring	2
L104C011	New Advances in Signal Processing	Spring	2
L104C010	New Advances in Communications	Spring	2
<i>IV. Thesis Credits</i>			
L0000003	Dissertation Proposal II	Fall	2
L0000004	Academic Activities II	Spring	

Total Credits Required	18+
NOTE: Graduate students are usually expected to meet the course requirements in the first academic year, including: I. Fundamental Courses, II. Core Courses, and sufficient elective courses in III. Major Electives.	

6. PhD Dissertation Topic and Research Proposal

PhD dissertation proposal should be no less than 10000 words long and has at least 80 references, half of which must be published in the recent 5 years. A PhD student should choose a research topic for the PhD dissertation and spend no less than 2 years on the dissertation research and writing, all under an advisor's guidance.

Detailed regulations and requirements on PhD dissertation are documented in the "*NJUST Regulations about the Topic Selection, Research Proposal and Composition of Postgraduate Theses and Dissertations*". The PhD dissertation research proposal writing and defense should be completed in no later than the second academic year of the program.

7. Publication

To meet the degree requirements, a PhD student is required to have a certain number of academic publications related to the dissertation research. Detailed requirements are documented in "*NJUST regulations on a postgraduate's publications of their research work*".

8. PhD Dissertation Requirements

Detailed regulations and requirements on PhD dissertation are documented in the "*NJUST Regulations about the Topic Selection, Research Proposal and Composition of Postgraduate Theses and Dissertations*", and "*NJUST Style Sheet for Theses and Dissertations*". For a joint effort with others, or a follow-up of previous work, the student should clearly specify his/her contribution to the thesis.