信息与通信工程(0810)

学科门类:工学(08)一级学科:信息与通信工程(0810)

一、专业描述

河海大学"信息与通信工程"学科源于我校基础理论及电子学工程系的无线电设计与制造专业(1960-1962)。1998 年获批"通信与信息系统"二级学科硕士点,2003 年获批"信号与信息处理"二级学科硕士点,2005 年和2011 年分别获批"信息与通信工程"一级学科硕士点和一级学科博士点。2008 年通信工程专业获批江苏省精品专业,2010 年评为国家特色专业。

学科围绕"信息获取与处理、通信传输、领域应用"信息链,以行业重大需求为导向,在信息获取与处理、遥感与遥测、通信网与专用通信系统、多维信号处理、雷达探测与信号处理等几个方向形成了与国际研究前沿/热点接轨、与工程应用技术紧密结合的鲜明特色。本一级学科现有教授 13 名,博导 11 名,其中海外取得博士学位占专任教师总人数的 31.1%, 45 岁以下中青年教师具有海外留学经历的比例为 100%。学科还拥有江苏省海洋监测设备与数据处理工程中心和江苏省水灾害监控与决策支持系统工程中心。研究生就业单位有机关事业单位、高校和科研机构、大中型 IT 企业等。

二、培养目标

在本门学科上掌握坚实宽广的基础理论和系统深入的专门知识; 具有独立从事科学研究工作的能力;在科学或专门技术上做出创造性 的成果。

三、研究方向

- 1、信息处理(Signal and Information Processing)
- 2、通信与信息系统(Communication and Information System)
- 3、遥测与信息网络(Telemetering and Information Network)
- 4、微波技术与应用 (Microwave Technology and Its application)
- 5、智能信息系统 (Intelligent Information System)
- 6、移动通信系统 (Mobile Telecommunications System)
- 7、物联网技术与应用 (Internet of things and its Application)
- 8、人工智能与大数据(Artificial Intelligence and Big Data)

四、申请条件

- 1. 已在我国认可的海内外高校或学术机构获得硕士学位者。
- 2. 能够用英语进行课程学习、阅读文献和进行学术写作,能够用英语进行日常交流。

五、培养年限

攻读博士学位的标准学制为 4 年,实行弹性学制,学习年限最短不低于 3 年,最长不超过 6 年。

六、学分要求和课程设置

本专业博士留学研究生课程总学分为 15 学分,其中学位课程为 11 学分,非学位课程为 4 学分。另设教学环节。具体开设课程见附表。

Information and Communication Engineering (0810)

Discipline: Engineering (08)

First-Class Discipline: Information and Communication Engineering (0810)

1.Discipline Description

The discipline of Information and Communication Engineering of Hohai

University derives its origin from the discipline of Radio Design and Manufacture in

the department of Electronic (1960-1962). It is approved as the secondary master

discipline in 2003, followed by the approval of the first-class master and doctoral

disciplines in 2005 and 2011 respectively. Furthermore it was also authorized as

elite program of Jiangsu Province and national specialty in 2008 and 2010.

The discipline embraces the information processing chain from signal gathering

and processing, communication/transmission and application in various domains. Led

by the industrial major demands, the discipline forms a close integration with industry

and international track in hot research areas including signal gathering and processing,

remote sensing, communication system, multivariate signal processing, radar

detection and signal processing. The first-class discipline currently has 13 professors,

11 PhD supervisors and 31.1% faculties with overseas doctoral degrees.

faculties under the age of 45 have overseas experiences. The discipline also has Ocean

Monitoring Equipment and Data Processing centre of Jiangsu Province and Flooding

Monitoring and Decision Support System Engineering Center of Jiangsu Province.

Graduates mostly begin careers in governments, universities/scientific research

institutions and medium and large IT enterprises.

2.Program Description

Graduates shall have the capacity of both fundamental theories and systematic

in-depth expertise knowledge in the above discipline and be capable of conducting

scientific research with independence.

3. Research Directions

The PhD program in Information and Communication Engineering is mainly

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oriented (but not limited) to the following research areas:

- Signal and Information Processing
- Communication and Information System
- Telemetering and Information Network
- Microwave Technology and Its application
- Intelligent Information System
- Mobile Telecommunications System
- Internet of things and its Application
- Artificial Intelligence and Big Data

4. Application Requirements

- (1) You have received the master degree from the domestic and overseas universities or academic institutions accredited by the Ministry of Education.
- (2) You have the ability to read and write academic papers and communicate in English.

5. Educational System and Duration

The doctorate program is 4 years, the duration is minimum 3 years and no more than 6 years.

6. Credits and Courses

A doctoral student must take at least 15 credits of courses, including 11 credits of Required course of the degree and 4 credits of Non-required course of the degree.

信息与通信工程全英文留学博士研究生课程设置

<u>Courses for Doctoral Students of Information and Communication Engineering</u>

Note	课程类别		课程编号	课程名称	学时	学分	开课学期	 备注
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