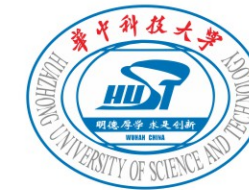




Academic Education Programs Sponsored by  
Ministry of Commerce PRC



**华中科技大学**

Huazhong University of Science and Technology

## Master Program In Information and Communication Engineering



### Contact

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# TABLE OF CONTENTS



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## Master Program In Information and Communication Engineering

1. Program Description.....	01
2. University Overview .....	04
3. Education Plan .....	05
4. Application .....	10
4.1 Eligibility .....	10
4.2 Application Procedure & Document .....	10
5. Other Reminders .....	12





## ACADEMIC EDUCATION PROGRAMS SPONSORED BY MINISTRY OF COMMERCE PRC

### 1.1 Brief Introduction :

Academic Education Programs Sponsored by the Ministry of Commerce of the People's Republic of China are designed to foster high-end business officials and managerial personnel for the recipient countries. The programs offer one-year and two-year master programs as well as three-year doctoral programs to educate high-end and inter-disciplinary talent working in the applied fields of government, trade, foreign affairs, agriculture, technology, education, culture, and health; building intellectual capacity and facilitating the economic and social development of the recipient countries. These programs assist governmental officials, research fellows, and senior managerial personnel in their master's and doctoral education in China, which are fully conducted in English. Admission requirements include a bachelor's degree, relevant working experiences, and decent physical condition essential for the high-compact curriculum needed for the degrees.

As for the positive effects and good results brought by these programs in strengthening economic ties and friendship between China and the recipient countries; the Ministry of Commerce of the People's Republic of China will continuously intensify its efforts in enlarging the enrollment scale and improving the quality of education. We believe that by attending the programs and achieving the degrees, participants will embrace a successful career and a brighter future.

Communication and information systems have become a mainstay of the information era. As an important component of high technology and the lifeline of the national economy, it has entered into every corner of our life. Developed countries including America, Japan, and European countries have achieved development in the economy and society through research and innovation and application of information and communication technology. The developing countries have been relatively backward in the new tide of informationization, and the gap will be widened if they lose this opportunity to catch up. In this context, it is of great significance for developing countries to improve the level of information and communication engineering.

The master program in Information and Communication Engineering, offered by the School of Electronic Information and Communication at Huazhong University of Science and Technology will not only accelerate the process of informationization and serve as a propeller for the informationization and infrastructure of developing countries, but also act as a bridge connecting other countries and China. It is bound to lay a solid foundation for cooperation and friendship among different countries.

### 1.2 Prospective Students:

Our prospective students are mid-to-senior level officials or managers from the government, enterprises, and other public sectors, who are working in the field of information and communication and have demonstrated superior performance, both academically and practically.

### 1.3 Program Objective:

To prepare high-caliber and interdisciplinary talents in the field of information and communication.

### 1.4 Enrollment Plan:

In 2020, HUST plans to enroll up to 25 students in this master's program.

This master's degree program is a two-year English-medium program. Students enrolled in this program are expected to complete the coursework in the first academic year, and complete research, internship, and a thesis in the second academic year.



### 1.5 Financial Support:

The project will cover the cost of teaching and relative expenses, student basic living expenses, and round-trip international tickets. The details are as follows:

- Students are exempt from tuition fees, teaching materials fees, investigation fees, English teaching allowance, and graduation thesis guidance fee.
- University provides free accommodation on campus.
- Students under this program will be granted a living allowance regularly: 36000 yuan per person per year for Masters Programs students, 42000 yuan per person per year for Doctors Programs students.
- Students under this program will be granted 3000 yuan per person for resettlement which will be allocated to students one-time when they firstly register on campus.
- University purchases China's comprehensive medical insurance for students.
- Round-trip international air tickets are provided: a round trip international ticket for the one -year schooling study; for two-years schooling and up, a round-trip international air ticket and n-1 (n years) round-trip tickets for returning home to visit relatives will be provided.
- All degree students are required to take part in the annual assessment. Those who meet the academic achievement assessment criteria may continue to receive full scholarships in the following year.
- Other expenses shall be managed and used by the Ministry of Commerce or the university as a whole, and shall not be distributed to students. The Ministry of Commerce only provides students with financial assistance within their required academic duration. Students who postpone their graduation for personal reasons will not receive continuing support.

## UNIVERSITY OVERVIEW

### Huazhong University of Science and Technology

HUST is a well-known university ranking the top 7 domestically and top 200 worldwide. Located in Wuhan, the campus, also known as the "University in the Forest", covers an area of over 460 hectares. HUST is devoted to the fusion of humanistic and scientific education and is dedicated to nurturing well-rounded individuals.

HUST has about 40 schools and departments, covering 10 subject areas: philosophy, economics, law, education, literature, science, engineering medicine, management, and arts, offering a variety of degree programs, including 103 undergraduate programs, 202 master programs, 189 Ph.D. programs, and 39 post-doctoral research centers. In 2017, Four disciplines namely, Mechanical Engineering, Optical Engineering, Biomedical Engineering, Public Health, and Preventive Medicine rank top 1 (A+) among their counterparts in China.

HUST offers 5 undergraduate programs, 81 Master's, and 87 Doctoral programs instructed in English. For over 50 years it has cultivated more than 5000 international students from over 130 countries and districts.

HUST adheres to the concept of open education and actively carry out all-round, multi-level international exchanges and cooperations. HUST has established partnerships with more than 100 renowned universities and research institutions in more than 41 countries worldwide. Over 1,600 scholars and experts visit and lecture here annually. In 2019, over 3,394 scholars and students from 153 countries came to study at HUST.

### School of Electronic Information and Communication

The School of Electronic Information and Communications was founded in 1960. The School now has a total number of 158 faculty and staff members including 122 faculties (27 professors and 64 associate professors).

The School of Electronic Information and Communications is the first in HUST to launch English-medium programs for international students. This school offers programs for undergraduate and postgraduate students. Currently, more than 160 international students in our undergraduate and graduate programs are studying on campus.

### Living Environment and Accommodations

Wuhan is a subtropical monsoon humid climate area with abundant rainfall and sunshine. There are four distinct seasons in Wuhan. Summer is usually hot with a high temperature up to 38 °C, while winter is cool and humid, the temperature could drop below 0°C. Taking 2019 as an example, the lowest temperature of -3°C occurred in January. The maximum temperature is 38 °C in July. It is recommended to prepare clothes for the four seasons.

Students can have meals in HUST canteens, the average monthly cost of food for students is about 2,000 yuan.

HUST will provide a single room with a separate bath for this program's students. There are three campus apartments with more than 200 single rooms available for international students. The university boasts 35 student canteens, including several Muslim canteens. With the implementation of foreign-aid projects during the past years, Huazhong University of Science and Technology has achieved completed a teaching and life-service system through integration of social resources, giving favorable support to this foreign-aid postgraduate training program.



## EDUCATION PLAN

### Courses Arrangement

Catalogue	Course Title	Credits	Total
Foundation Course	First foreign language	4	21
	Introduction of China	2	
	International Students' Orientation Course	1	
	Computer Networks	2	
	Network and Information Security	2	
	Mobile Communication System	2	
	Artificial Intelligence	2	
	Internet Applications	2	
	Electronic Commerce	2	
	IT Project Management	2	
Research	Literature reading and Research Proposal	1	14
	Academic Proposal	1	
	Dissertation	10	
	Engineering Practice	2	
Total			35

### Course Description

#### Network and Information Security

Overview and Introduction: Network and Information Security Concepts; The OSI Security Architecture; Security Attacks; Security Services; Security Mechanisms; A Model for Network Access Security. Classical Encryption Techniques, Block Ciphers and the Data Encryption Standard, Public-Key Cryptography and RSA, Key Management and Distribution, User Authentication Protocols, Transport Level Security, Wireless Network Security, the development trend of network and information security technology.

#### Computer Network

Technical issues, basic principles, Common protocols, and some Advanced Technologies of computer Networks, including hierarchical Architecture, packet switching, Network Interconnection, Convergence with Telecom Networks, Internet for Business, The impact of media, and the technical challenges posed by its application in these areas.

#### Mobile Communication System

Basic principle and composition, key technology of the mobile communication system, main communication system architecture and current implementation mode; development history and present situation of the communication system; basic theory and key technology of communication system design; the latest development direction of the mobile communication system.

#### Artificial Intelligence

Overview of artificial intelligence; basic motivations, core ideas, classical algorithms, and representative applications of topics such as scheme search, unsupervised learning, knowledge engineering; implementation of algorithms based on python.

#### Internet Applications

Current development status of Internet applications for content dissemination and distribution; Master the basic architecture of Internet applications, design and deployment principles, including content-coding, web architecture, caching technology, content distribution network technology, mobile caching, cloud storage; the combination of analysis and case studies on the technical challenges for Internet application deployment, such as on-line video distribution, web-based education applications and so on.

#### Electronic Commerce

Concept and Development of E-commerce; Alibaba case study; Amazon case Analysis; Business Model; documentary discussion on Internet Age.

#### Project Management

Project life cycle process; project team establishment and management; project quality management; project incentive theory; project cost and time estimation; project risk assessment; project conflict resolution.

#### Teaching Mode

Classes will incorporate a mix of lectures, seminars, case discussions, practice training, and on-spot study.



## Teaching plan

Semester	Course Title	Credits
First semester	First foreign language	4
	International Students' Orientation Course	1
	Computer Network	2
	Mobile Communication System	2
	Electronic Commerce	2
Second semester	Introduction of China	2
	Artificial Intelligence	2
	Internet Applications	2
	IT Project Management	2
	Network and Information Security	2

The requirement for total credits is  $\geq 35$ , with at least 21 course credits and 14 research credits.

### Thesis

By the end of the first academic year, the student shall choose a professor as his/her supervisor, and determine the subject of the thesis. The selection of the topic should come from a clear engineering or technical engineering background. In the second academic year, students are expected to complete their theses and pass an oral defense. In the graduation thesis stage, students should participate in the subject selection, mid-term assessment, and degree defense on schedule. The thesis or dissertation shall be written in English with no less than 20,000 words.

### Degrees

According to the academic requirements of this Master's Program, the candidate shall obtain the required credits and pass the defense of the thesis (design). With the examination and approval by the University Degree Evaluation Committee and School Sub-Committee, a Master of Engineering Degree shall be conferred to the candidate.

## PROFILES OF INSTRUCTORS

### Chen Jingwen

Dr. Chen Jingwen is the associate professor of the School of Electronic Information and Telecommunication in HUST. He is engaged in the research of data communication network technology, including the areas of network system modeling and service performance analysis, P2P network transmission and application, embedded system and its application. In recent 5 years, the research programs he attended include "Key Technology of Digital Music Service Research and Development of Service Platform" (supported by 11th Five-Year Plan of China), "Embedded RFID Middleware Research and Development" (National 863 Plan Program), "the Research and Development of Network Simulation Platform" (CNGI sub-project) and so on. In addition, he has published several theses in high-level journals. He also visited the Information and Communication Research Institute of the University of Wollongong in Australia as a visiting scholar in 2003 and 2009.

### Xu Wei

Dr. Xu Wei is an associate professor of the School of Electronic Information and Telecommunication, HUST. He started teaching and research work in 2000, mainly researching E-commerce, network education, and network security. Since then, he has hosted 1 national science and technology support projects, and also participated in 9 of them; participated in 3 national 863 projects. As for awards, he won the first and second prize in provincial science and technology progress respectively. He has published more than 20 papers in international conferences and authoritative journals.

### Yu Li

Dr. Yu Li is a professor of the School of Electronic Information and Telecommunication, HUST. She is an advanced scholar of the University of Waterloo, Canada, the director of the patent pool management committee of China's AVS working group, and the executive committee member of IEEE, Wuhan. She also won a lot of awards, such as "Brand Course for Studying in China", "Excellent University Key Teacher" by the Ministry of Education of China. She achieved honors by taking part in the work of Audio and Video coding Standards, such as the Major Technological Invention Award in the information industry and the First Prize of Contribution to China's standard innovation. Her major research areas are video image processing, multimedia communication, and mobile internet. She already has more than 100 publications and 10 invention patents in these areas.

### Wang Bang

Dr. WANG Bang is a professor in the School of Electronic Information and Telecommunication, HUST. He obtained his Ph.D. degree in The Department of Electrical and Computer Engineering (ECE) of the National University of Singapore (NUS) in 2004. Dr. Wang worked for Nokia Research Center (Aalborg, Denmark) in the year 2004 on the project of 3.5G High-Speed Downlink Packet Access (HSDPA), where he published a paper "Performance of VoIP on HSDPA" having been cited over 80 times. In 2006, Dr. Wang worked for Panasonic Singapore Laboratory (PSL) for the 3.9G Long Term Evolution (LTE) project, where his work had been published as an international patent. From 2005 to 2006, Dr. Wang worked in NUS, and from 2007 to 2010, he worked at Nanyang Technological University (NTU), both as a research fellow and on various projects about the theories and applications of Wireless Sensor Networks (WSNs). He had implemented a WSN prototype for vehicle detection and tracking. Also, he had researched various topics in WSNs and had published technical papers in decent journals and conferences. Dr. Wang serves as the Principle Investigator for various projects of a total amount of over 1.5M RMB. Also, he has published 1 patent, 1 monograph, 1 textbook, and more than 80 technical papers with total google citations close to 800 times.

### Liu Wei ◆◆◆

Dr. Liu Wei is currently a Professor of the School of Electronic Information and Communications, HuaZhong University of Science and Technology. He received the B.S. degree in telecommunication engineering and the Ph.D. degree in electronics and information engineering from Huazhong University of Science and Technology, Wuhan, China, in 1999 and 2004, respectively. His research interests include wireless networks, Internet measurement, and content-centric networks. He hosted several national science projects, such as the national science foundation project, national science and technology support projects, 863 projects, and so on. He has published more than 80 papers in international conferences and authoritative journals.

### Xu Jing ◆◆◆

Dr. Jing Xu is currently an associate professor in the School of Electronic Information and Communications, HuaZhong University of Science and Technology, Wuhan, China. He received the B.S. degree in telecommunication engineering and the Ph.D. degree in electronics and information engineering from Huazhong University of Science and Technology, Wuhan, China, in 2001 and 2011, respectively. He has rich teaching and practice experience in the field of computer science and software engineering. His research interests include wireless networks, network security, optimization theory, game theory, and reinforcement learning and their application in networked systems. He has already published has more than 20 papers in international conferences and authoritative journals.

### Hu Menglan ◆◆◆

Dr. Hu Menglan received a B.E. degree in electronic and information engineering from Huazhong University of Science and Technology, China (2007), and a Ph.D. degree in electrical and computer engineering from the National University of Singapore, Singapore (2012). He is currently an Associate Professor at the School of Electronic Information and Communications, Huazhong University of Science and Technology, China. His research interests include cloud computing, parallel and distributed systems, scheduling and resource management, as well as wireless networking.

## APPLICATION

### 4.1 Eligibility:

To be eligible, applicants must:

- Be a citizen of a country other than P. R. China, holding a valid passport, in good physical conditions under the age of 45( born after September 1, 1974); abide by the laws and regulations of the People's Republic of China and the rules and regulations of Huazhong University of Science and Technology.
- All the applicants shall be in good physical and mental conditions with a health certificate or physical examination report issued by the local public hospital. The applicants shall carry no infectious diseases prohibited by China's Entry-Exit Inspection and Quarantine Laws and Regulations. No serious chronic diseases, such as serious hypertension, cardiovascular and cerebrovascular diseases, diabetes, and cancer, or other serious infectious diseases which may cause significant harm to public health; applicants who are in a major operation recovery period and acute and venereal disease onset period, or with severe physical disability of the limb; or women who are in pregnancy are not eligible for application. Women who become pregnant during the study period shall be dropped out of this program.
- Be a bachelor's degree (or above degree) holder; at least three years of working experience in a relative field.
- Incumbents with a relative educational background or working experience are preferred.
- Applicants shall be chief governors, senior management of an enterprise, senior researchers from academic institutions, academic staff of universities, and other related fields.
- Good command of English; TOEFL, GRE, IELTS, or other official recognized test holders are preferred. For the applicant, whose native language is English or with full English –taught college education, English test scores are not required.
- With the potential of professional development in this field, and is committed to promoting friendly exchanges and cooperation between the host country and China.
- Students who have studied in China or have been admitted to other Chinese government scholarship programs shall not apply.

### 4.2 Application Procedure & Document

#### Application Procedure

Before submitting your Application Documents to ECCO of the Chinese Embassy, please go through the following two steps:

#### Step 1: Application to Chinese Government Scholarship

Please visit the online application system of the Chinese Scholarship Council at <https://studyinchina.csc.edu.cn>, and register for an account. Select the program “Chinese Government Scholarship”, fill in all the required information, and an application form will come into being. Print out the form put on a hand-written name and date, and then post a photo on it. To complete the form successfully, please note the following information:

The agency No. of HUST is 10487; The Category is “B”;  
Major is “Information and Communication Engineering”;

**Step 2:** HUST Admission application.

1.Login Online Application: <http://admission.hust.edu.cn/>

2.Register and apply online.

3.Upload all the required documents and submit your application.

Note: Please create your account and pin number, then log into your account to fill in the required information. Always follow the Registration Guide on the application website and complete your online application. The uploaded document should not exceed 1.5M. Please make sure the uploaded documents are clear and accurate. After your application is completed, you will have an application number (11 digits) like “2020XXXXXX”, please print this HUST application form for submission.

For the item “funding sources”: please fill in MOFCOM Scholarship

#### Application Documents (written in Chinese or English)

- 1.Recommendation letter from your current institution;
- 2.Recommendation letter from a professor who could prove the educational background, research field, achievement, and study ability;
- 3.Photocopy of highest diploma;
- 4.Photocopy of academic transcripts;
- 5.CV (including the educational background and working experience after high school);
- 6.Personal statement;
- 7.A Study Plan or Research Proposal;
- 8.Photocopy of a valid passport (information shall be accurate and clear, Diplomatic and official passports are not acceptable);
- 9.Photocopy of English proficiency; Applicants who are not native English speakers or whose undergraduate education was not conducted in English shall provide TOEFL or IELTS test scores.
- 10.2 white-bottomed 2-inch photos with no crown shot within recent 3 months.
- 11.Physical Examination Form (The results of the physical examination in the last 1 month demonstrate that the applicant is not suffering from a serious infectious disease or affects the disability of the subject or other conditions that the Chinese Government does not allow for entry.

#### Submission

1.Upon obtaining the approval and recommendation of the responsible department of his or her government, the applicant can apply for this program and submit the material according to the specific requirements of the relevant department of the host country.

2.For the applicants whose host government allows them to submit the materials directly to the Embassy of China, please obtain the permission letter from the host country which states that the applicant has been approved to study abroad, and submit the above mentioned original documents including the application form formed in Step 1,2 and their scanned electronic documents to the Chinese Embassy in the host country for business; For emails and addresses of the Economic and Commercial Counsellor’s Offices, please visit <http://www.china-aibo.cn>.

3.The responsible department of the host government submit a written request to the Economic and Commercial Counsellor’s Office of the Chinese Embassy for an official recommendation letter and clearly state: whether the applicant is willing to be considered for a similar program at other universities if the programs at HUST are already full; Other special requests if any.

#### Important Reminders:

1. All the documents to be submitted should be in Chinese or English. Otherwise, a notarized copy in Chinese or English is required.

2. All original copies of degrees, transcripts, and language certificates must be presented to the Economic and Commercial Counsellor’s Office of the Chinese Embassy for on-site verification. Then, the applicants shall contact the university and submit the scanned copies.

3. Applicants will get back all the hard-copy materials, both original copies and photocopies from the Economic and Commercial Counsellor’s Office after the verification. If admitted, please take the documents to China and submit them to the applied university during their registration in early September.

#### Deadlines

The application deadline is **April 30, 2021**.

## OTHER REMINDERS

1. None of the materials submitted to HUST will be returned.
2. No spouse or children accompany is allowed during the study period. No coverage on the travel expense for family visiting.
3. No explanation on the section result.
4. Formalities for coming to China and other requirements will be explained in the admission package.

