



2015-2016 Chinese Government Scholarship Program Harbin Institute of Technology

I Application

The applicants should send their applications in time to the International Student Center (hereinafter referred to as ISC) of HIT before **December 31, 2014**.

II Eligibility

1. Applicants must be non-Chinese nationals in good health.

2. Education background required and age limit:

Applicants for master degree studies must have bachelor's degree and be under the age of 35;

Applicants for doctoral degree studies must have master's degree and be under the age of 40.

3. Excellent results in study.

4. Applicants should have good ability in scientific research.

Note: The scholarship cannot be combined with any other scholarship.

III Details of the Scholarship

1. Exempt from registration fee, tuition fee, fee for laboratory experiment, internship fee, fee for basic learning materials and on-campus accommodation fee;

2. Per year CNY 800 for Comprehensive Medical Insurance;

3. Monthly living allowance is granted to the students at the following rates (CNY Yuan per month):

Master degree candidate: CNY 1,700 Yuan

Doctoral degree candidate: CNY 2,000 Yuan

4. CNY 1,500 of one-off settlement subsidy is for new students upon their arrival in China.



Complement:

1. The students are required to cover the expenses for experiments or internship, which exceeds the teaching arrangements of HIT.
2. One-time payment of basic learning materials is CNY 300 for the student every academic year.
3. The living allowances will be allotted monthly to the students from the time of registration at the ISC. The new students who register before 15th (15th included) of the registration month will enjoy the whole amount of living allowance of that month; those who register after the 15th will get that of a half month. Graduates will get the living allowances till 15 days after the graduation date set by HIT. The scholarship will be terminated from next month for the students who suspend their studies, quit or graduate from HIT. The students are entitled to living allowance during the vacation period arranged by the university. The living allowance, which students didn't get in time as the departure for vacation, can be refunded when they are back to school. The living allowances will be stopped for one month for the students who do not register on time without permission from the ISC beforehand, leave with non-health reasons or are absent from the university over a month.
4. Scholarship students who have to suspend their education for illness should return to their home country for further treatment and rest. The international travel expenses of returning and coming back should be paid for their own. The students, who are allowed by the school authority to suspend their education, can remain their scholarship. The scholarship status will be reserved one year at the most, however, the monthly living allowance will be stopped during the suspension of education. The scholarship status of the students who suspend their education for reasons other than illness will be terminated.
5. Comprehensive Insurance for International students in China refers to the Comprehensive Medical Insurance insured by Chinese Educational Ministry for the scholarship students in China. The institution is entitled to ask for compensation on the



payment receipts from the insurance company for the expenses generated from hospitalizing for serious diseases or from accidental injury according to the stipulated insurance articles. The insurance company does not accept individual claims.

IV Categories of Applicants and Duration of Scholarship

| No. | Categories of Applicants | Duration of Major Studies | Duration of Remedial Chinese Language Studies | Duration of Scholarship |
|-----|--------------------------|---------------------------|---|-------------------------|
| | | Academic Years | | |
| 1. | Master's Degree Students | 2 | 1 | 2-3 |
| 2. | Doctoral Degree Students | 3 | 1 | 3-4 |

V Application materials

The applicants must fill in and provide the following materials truly and correctly (in duplicate) and pay for the material assessment fee.

1. Application Form for Chinese Government Scholarship. Those who are available for online application shall fill in and print the application form after submitting online.
 - i. The CSC Online Application System for Study in China is available at <http://laihua.csc.edu.cn>
 - ii. **HIT university code is 10213**
2. Notarized Highest diploma. If applicants are university students or already employed, they should provide pre-graduation certificate or employment certificate. The foreign language (except Chinese or English) text should be attached the notarized Chinese or English translation.
3. The students applying the Master or Doctorate should provide transcripts. The foreign language (except Chinese or English) text should be attached the notarized Chinese or English translation.



4. Transcripts (notarized photocopy).
5. A study or research plan (no less than 800 words).
6. Two recommendation letters by professors or associate professors.
7. Passport copy. (Valid not earlier than Feb.28, 2016)
8. Photocopy of Foreigner Physical Examination Form (printed by Chinese quarantine authority and only for those whose period of studies in China lasts up to six months).
The medical examinations must cover all the items listed in the Foreigner Physical Examination Form. Incomplete records or those without the signature of the attending physician, official stamp of the hospital or a sealed photograph of the applicants are invalid. The medical examination result is generally valid for 6 months.
9. Material Assessment Fee: 60 USD or 400 RMB

Remittance Information:

Bank Name: Industrial and Commercial Bank of China, Harbin, Da Zhi Branch

Bank Address: 318 East Dazhi Street, Harbin, People's Republic of China

Name: Harbin Institute of Technology

Account Number: 3500040109008900513

SWIFT/BIC : ICBKCNBJHLJ

NOTICE: Applicants should submit the paper application materials with remittance receipt. Whether admitted or not, paper materials and material assessment fee will not be returned. Please inform us promptly if the materials cannot be sent in time.

VI Selection of Specialty

Please visit our website at <http://www.studyathit.cn/en> for more details. For more information about HIT, please visit <http://en.hit.edu.cn/index.asp>

VII Teaching Language

All doctoral degree programs are taught in English or Chinese. Master's degree programs are generally taught in Chinese, except the programs of Management, Materials, Civil



Engineering, Mechanics and Electricity. Applicant with no command of Chinese is required to take one-year Chinese language course. For English-taught programs, applicant whose native language is not English should submit an English-proficiency score, a score of at least 550 on the TOEFL Internet-based exam or 5.5 on the IELTS.

Notice: The student who has attended the Chinese Language Course for one year, their teaching language of the professional course is Chinese, and can not change the language.

VIII Approval and Notification

1. HIT will review all the application materials and is authorized to make necessary adjustments on specialties and duration of study. The application will be seen as invalid and will not be processed if the applicants are not qualified or the application materials are inconsistent with the recruitment regulations or are incomplete.
2. Applicants are encouraged to contact the professor prior to application and please enclose the relevant admission or recommendation letter if there is.
3. Scholarship applicants accepted by HIT will be officially awarded the Chinese Government Scholarship with endorsement from CSC and submitted to MOEC for the record.
4. Applicants are not permitted, in principle, to change their supervisors, specialties, institutions, or the duration of study specified in the Admission Notice after registration.
5. HIT will send Admission Notice and Visa Application Form for Study in China (JW201) to the relevant dispatching authorities by July 31, so as to have these documents forwarded to the awardees.
6. Applicants who cannot register before September 30 are regarded as giving up the scholarship.

IX Contact us

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Fax: 0086-451-86417792

Post Code: 150001

Website: <http://www.studyathit.cn>

Add: Room 302 No.11 Siling Street, Nangang District, Harbin 150001, China

Please mark clearly “CSC Scholarship Application” in the email subject or on the envelope.

The ISC will keep the Explanation authority for this brochure.

The following attachment is the Programs offered by HIT.

★ *HIT Doctoral Degree Programs*

★ *HIT Master’s Degree Programs*

★ *Master’s Degree Programs Taught in English*

You never thought about studying at HIT in China.





哈尔滨工业大学
Harbin Institute of Technology

You just did.





HIT Doctoral Degree Programs

| School | Major | Direction |
|--|--|---|
| Department of Test Automation and Control System | Instrument Science and Technology | <ol style="list-style-type: none"> 1. Nanometer measurement and ultra precision instrument technology 2. Laser measurement and detection technology 3. Photoelectric measurement technology and instruments 4. Radiation temperature measurement and testing technology in thermal and physical properties 5. Image and information processing technology 6. The technology of electronic measurement and instrument 7. Sensor technology and light mechanical and electrical system 8. Test automation and control technology 9. Quality measurement technology and instruments |
| School of Energy Science and Engineering | Power Engineering and Engineering Thermo-physics | <ol style="list-style-type: none"> 1. The comprehensive utilization of energy and energy saving technology 2. Multiphase flow system engineering 3. Air pollution control technology 4. Convection. Pneumatic coupling heat transfer and radiation 5. Dynamic mechanical pneumatic thermodynamics 6. The optimization of supernormal parameter steam turbine 7. Thermal system dynamics and control machinery 8. The flow analysis of fluid power components 9. Automation in Petro-Chemical Industry |
| School of Computer Science and Technology | Computer Science and Technology | <ol style="list-style-type: none"> 1. High reliable high performance computer architecture 2. Mobile computing and embedded computing 3. The computer network and information security 4. Computing theory 5. Huge amounts of data calculation 6. service computing 7. Biological computing and bioinformatics 8. Intelligent human-computer interaction and digital media technology 9. Artificial Intelligence and Pattern Recognition 10. Multiple languages and Chinese information processing 11. social computing |
| | Software Engineering | <ol style="list-style-type: none"> 1. Software Service engineering 2. Software engineering and software architecture 3. Software trustworthiness and reliability |



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| | | <ol style="list-style-type: none">4. Intelligent software theory and machine learning5. Business intelligence and data mining6. Field of software engineering |
| Department of Control Science and Engineering | Control Science and Engineering | <ol style="list-style-type: none">1. Navigation, guidance and control2. control theory and control engineering3. detection technology and automatic equipment4. Pattern recognition and intelligent system5. systems engineering |
| School of Electronics and Information Technology | Information and Communication Engineering | <ol style="list-style-type: none">1. Broadband communication theory and signal processing2. Wireless mobile communication and network3. Deep space communication theory and satellite communication technology4. Modern signal processing theory and technology5. Microwave imaging and target recognition technology6. Advanced image processing theory and technology7. Remote sensing information processing technology8. Electronic countermeasure theory and technology9. Electromagnetic theory and rf technology |
| Department of Electrical Engineering | Electrical Engineering | <ol style="list-style-type: none">1. electrical machinery and appliance2. Power System and Automation3. High Voltage and Insulation Technology4. power electronics and power drives5. The electrician theory and new technique |
| Department of Chemistry | Chemistry Engineering and Technology | <ol style="list-style-type: none">1. Surface and interface chemistry2. Polymer composite and modification3. electrochemical power source4. Metal electrode position and chemical deposition5. Preparation and performance of functional materials6. Catalyst and catalytic reaction engineering7. Biological synthesis and separation engineering8. Bimolecular Engineering9. New energy chemical industry |
| School of Mechanical and | Mechanical Engineering | <ol style="list-style-type: none">1. Precision and ultra-precision processing technology2. Micro-Nano manufacturing techniques3. Special processing and special material processing technology4. Modern design theory and method5. Digital Design and Manufacturing Technology6. Mechanical and electrical system control and automation7. Modern sensor and testing technology |



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| Electrical Engineering | | <ol style="list-style-type: none"> 8. The fluid flow control and automation 9. Robot technology and system 10. Special transmission intelligent design and control 11. Tribology basic theory and application technology 12. Engineering structure design and analysis 13. Vibration and Noise Control 14. Biomechanical Engineering 15. Production system automation technology 16. Manufacturing system engineering management 17. Vehicle Dynamics and control 18. Vehicles advanced manufacturing technology 19. Modern design theory and method of vehicle 20. Vehicle electronics and control |
| | Aeronautical and Astronautical Science and Technology | <ol style="list-style-type: none"> 1. The space structure and control 2. Aerospace high precision manufacturing technology 3. Space robot technology 4. The space of special processing technology 5. Aircraft digital manufacturing technology 6. Aircraft ground simulation and testing technology |
| School of Materials Science and Engineering | Materials Science and Engineering | <ol style="list-style-type: none"> 1. Intelligent materials and devices 2. Photoelectric film material with quantum devices 3. Special optical fiber and device 4. Space material and its environmental effects 5. Metal and composite materials 6. Inorganic nonmetallic materials 7. Polymer and composite materials 8. Thin film materials and surface engineering 9. Solidification science and engineering 10. Plastic processing science and engineering 11. Materials science and engineering connection |
| School of Economy and Management | Management Science and Engineering | <ol style="list-style-type: none"> 1. Management information systems and decision support system 2. The electronic commerce and business intelligence 3. Project management theory and method 4. Urban management theory and method 5. Systems engineering theory and method |
| | Business Administration | <ol style="list-style-type: none"> 1. Enterprise strategic management theory and method 2. Organization and human resource theory and method 3. Marketing theory and method 4. Accounting policies and accounting information disclosure |



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| | | <ol style="list-style-type: none">5. Investment and financing theory and financial engineering6. The sustainable development theory, method and policy7. Management control. Corporate governance and corporate value |
| | Public Administration | <ol style="list-style-type: none">1. Public policy analysis and simulation2. City management and government management innovation3. Influence of public policy evaluation4. Infrastructure, economy and management |
| Department of Physics | Physics | <ol style="list-style-type: none">1. Nonlinear optics and laser spectroscopy2. Military information photonics technology and devices3. Nano photonics and surface from excimer optics, etc4. Quantum information and quantum Dynamics5. Cross the extreme conditions of condensed matter physics6. Physics and high energy heavy-ion collisions hadron phenomenological study7. The physical function of modern materials and nano device8. Particulate matter and soft matter physics9. Plasma transport and its interaction with light field10. On ultra-weak bioluminescence (uwl) and optical imaging technology |
| Department of Mathematics | Mathematics | <ol style="list-style-type: none">1. Calculus2. Algebra3. Topology4. Differential equation5. Numerical analysis of differential equations6. Scientific calculation7. Probability and statistics8. Functional differential equation |
| School of Humanities and Social Science | Sociology | <ol style="list-style-type: none">1. Theory and practice2. Sociology engineering technology3. Social development and the underclass4. Social development and the underclass5. The network society |
| Department of Aerospace Engineering and | Mechanics | <ol style="list-style-type: none">1. Structural Dynamics and vibration control2. Dynamics of composite materials3. Concept of micro Dynamics4. Solid Dynamics5. Dynamic inverse problem and fault diagnosis6. Material performance characterization and failure analysis |



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| Mechanics | | <ol style="list-style-type: none">7. nonlinear kinetics8. Intelligent material systems and structures9. fluid Dynamics10. optimum structural design |
| | Aeronautical and Astronautical Science and Technology | <ol style="list-style-type: none">1. Aircraft system optimization design and simulation2. Aircraft system optimization design and simulation3. Deep space probe landing and return4. Space structure Dynamics and control5. The effect of space environment and protection |
| Department of Electronics Science and Technology | Optical Engineering | <ol style="list-style-type: none">1. Space optical access to information technology and processing2. Optical guidance and simulation3. Modern photoelectric testing technology4. Target detection and recognition5. Optical image processing and evaluation6. Space laser communication7. Laser radar and laser remote sensing8. High power laser and tunable laser9. Nonlinear optics technology and application10. photoelectric device and technology |
| | Electronics Science and Technology | <ol style="list-style-type: none">1. Laser spatial information and confrontation2. Tunable laser. Short wavelength laser3. Nonlinear optics, quantum optics technology and application4. Photoelectric device and technology5. Laser spectrum and the mechanism of laser medium6. Micro-Nano devices and systems7. Mixed signal and rf IC/a8. Integrated sensor technology9. System-on-a-chip SoC and IP design technology10. Microwave transmission theory and antenna system |
| School of Chemical Engineering & Technology | Chemistry Engineering and Technology | <ol style="list-style-type: none">1. Surface and interface chemistry2. Polymer composite and modification3. electrochemical power source4. Metal electrodeposition and chemical deposition5. Preparation and performance of functional materials6. Catalyst and catalytic reaction engineering7. Biological synthesis and separation engineering8. Bimolecular Engineering9. New energy chemical industry |



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| School of Municipal and Environmental Engineering | Civil Engineering | <ol style="list-style-type: none">1. Urban drinking water security2. Sludge wastewater treatment and reuse theory and technology3. Urban water system digital and network optimization4. The microbiology and chemical environment and water science5. Optimal allocation of urban water resources protection. With the development and utilization6. Solid waste reduction, resource and energy7. Circular economy and low-carbon technologies8. Heating calculation theory and application technology9. Ventilation and air conditioning theory and application10. Building energy efficiency and energy utilization11. Gas storage and transportation and urban gas application12. Hvac systems and control theory and technology13. built environment |
| | Environmental Science and Engineering | <ol style="list-style-type: none">1. Sludge wastewater treatment and reuse theory and technology2. The microbiology and chemical environment and water science3. Regional watershed pollution control. Environmental planning and ecological security4. Environmental science and functional materials with water5. Gaseous pollutants reduction and prevention and control technology6. Solid waste reduction, resource and energy7. New energy and energy conservation and emissions reduction technologies8. Circular economy and low-carbon technologies |
| School of Life Science and Technology | Biomedical Engineering | <ol style="list-style-type: none">1. Biomedical information technology2. Nano biotechnology and biological sensors3. Biomedical detection technology4. Biological electromechanical integration technology5. Biomedical image processing6. Tissue engineering and technology7. Tissue engineering and technology |
| School of Transportation Science and Technology | Communication and Transportation Engineering | <ol style="list-style-type: none">1. Road construction materials2. Composite subgrade stability technology3. Pavement Dynamics and design method4. Road nondestructive testing technology5. road transportation safety6. Transportation planning7. traffic economy |



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| | | <ul style="list-style-type: none"> 8. Intelligent transportation system 9. traffic management and control |
| | Civil Engineering | <ul style="list-style-type: none"> 1. Bridge Structure and durability 2. Bridge monitoring. Monitoring and safety evaluation 3. Bridge seismic and axle vibration 4. Both the bridge reinforcement 5. Advanced composite applications |
| School of Civil Engineering | Civil Engineering | <ul style="list-style-type: none"> 1. Geotechnical engineering and underground structure 2. Rock geological engineering to the environment 3. Large-span space and the high-rise structures 4. Steel structure. The wood structure and composite structure 5. Reinforced concrete structure. Masonry structure with prestressed structure 6. Bridge structure and offshore platform 7. Civil engineering construction and structure make a diagnosis and give treatment. Modification technology 8. Earthquake engineering and wind engineering 9. Major projects safety protection and urban disaster prevention and mitigation 10. High performance concrete. The intelligent materials and structures |
| | Mechanics | <ul style="list-style-type: none"> 1. Structural vibration, impact and control 2. And the reliability of structural damage. Health monitoring 3. Computational structural Dynamics and computational fluid Dynamics 4. Civil engineering intelligent materials and structures system 5. Civil engineering structure and the theory of system design |
| School of Architecture | Architecture | <ul style="list-style-type: none"> 1. The architectural design and theory 2. Public architecture design and its theory 3. Green building and energy saving technology 4. City and building physical environment 5. Chinese and foreign architectural history and heritage protection 6. The urban design and interior design |
| | Urban and Rural Planning | <ul style="list-style-type: none"> 1. Urban and rural planning theory and methods 2. Urban historical and cultural protection and planning design 3. Cold to urban and rural living environment planning 4. Urban form and landscape planning 5. Urban and rural security and regional planning |



Landscape
Architecture

1. History and theory of western landscape
2. Landscape heritage protection and utilization
3. Landscape planning and design and theory
4. Landscape architecture engineering and technology
5. ecology landscape
6. Tourist recreation and planning and design





HIT Master's Degree Programs

| School | Major | Direction |
|--|------------------------|--|
| School of Astronautics Department of Aerospace Engineering and Mechanics | Mechanics | <ol style="list-style-type: none">1. Damage and fracture Dynamics2. Solid Dynamics3. Structural Dynamics and software engineering4. Composite materials and structural Dynamics5. Advanced composite materials performance characterization and failure analysis6. Composite material structure design, analysis, evaluation of integration7. Complex structural engineering reliability and optimization8. The spacecraft Dynamics and control9. Underwater bodies, fluid Dynamics and control10. Engineering system health monitoring and fault diagnosis technology11. nonlinear kinetics |
| School of Astronautics Department of Electronic Science and Technology | Optical Engineering | <ol style="list-style-type: none">1. The optical image and information processing technology2. High resolution optical remote sensing technology3. Target detection and recognition technology4. Modern photoelectric detection technology5. Photoelectric guidance and simulation technology6. Optical remote sensing technology7. Space photoelectric information technology8. Modern photoelectric detection technology9. Advanced optical processing and detection technology10. Modern optical technology11. Laser spatial information and confrontation12. Tunable laser, short wavelength laser13. Nonlinear optics, quantum optics technology and application14. Photoelectric device and technology15. Laser spectrum and the mechanism of laser medium |



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| | 1.physical electronics 2.microsystem electronics and solid state electronics | 1. Laser spatial information and confrontation 2. Tunable laser, short wavelength laser 3. Nonlinear optics, quantum optics technology and application 4. Photoelectric device and technology 5. Laser spectrum and the mechanism of laser medium 6. Micro-Nano devices and systems 7. Mixed signal and rf IC/a 8. Integrated sensor technology 9. System level chip (SoC) and IP design technology |
| School of Astronautics Department of control science and engineering | Control Science and Engineering | 1. Control Theory and Applications 2. Advanced Process Control 3. Modern testing technology 4. Navigation control system 5. inertial technology 6. Guidance, control and simulation 7. Pattern recognition theory and application 8. Intelligent control |
| School of Astronautics | Aeronautical and Astronautical Science and Technology | 1. Aircraft systems engineering and design 2. Vehicle Dynamics and control 3. Vehicle autonomous navigation and control 4. Complex spacecraft Dynamics and control 5. Aircraft reliability and fault diagnosis 6. The integration of design and system simulation 7. Dynamic design and simulation of space agencies 8. Aircraft environment control and human-computer ergonomics 9. Environmental effect of spacecraft simulation and countermeasures 10. High speed impact Dynamics 11. Plasma engine principle and design theory 12. Plasma engine life and reliability 13. Plasma enhanced combustion and flow control 14. Supersonic combustion ramjet technology 15. Combination of advancing technology |
| | | 1.Clean coal combustion and pollutant emission reduction |



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| <p>School of Energy Science and Engineering</p> | <p>Power Engineering and Engineering Thermo-physics</p> | <ol style="list-style-type: none">2. The flow of the impeller mechanical control, and its reliability optimization design technology research3. Under extreme conditions of flow, heat transfer and mass transfer4. Electric propulsion5. Microscale heat physical process and cross-cultural dimension analysis6. The theory of infrared thermal image target and environment modeling7. Fluid machinery/chemical machinery of control and system optimization8. The comprehensive utilization of energy and section technology9. Multiphase flow system engineering10. Air pollution control technology11. Convection, pneumatic coupling heat transfer and radiation12. Dynamic mechanical pneumatic thermo Dynamics13. The optimization of supernormal parameter steam turbine14. Thermal system Dynamics and control machinery15. The flow analysis of fluid power components16. Automation in Petro-Chemical Industry |
| <p>School of Computer Science and Technology</p> | <p>Computer Science and Technology</p> | <ol style="list-style-type: none">1. High reliability and fault-tolerant computing2. Mobile computing3. The computer network and information security technology4. Huge amounts of data calculation5. Intelligent interface and human-computer interaction6. Natural language computing technology7. Enterprise computing and service computing8. Biological computing and information technology9. Multi-agent robotic technology10. Artificial Intelligence and Pattern Recognition11. Space computing technology and its application <ol style="list-style-type: none">1. Software engineering and service computing2. Service science and engineering |



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| | Software Engineering | <ol style="list-style-type: none">3. Software engineering and software architecture4. Software reliability and software testing5. Intelligent software theory and machine learning6. Data mining and business intelligence7. Software engineering application (① Network & Information Security Technology ② Language processing and information retrieval ③ Digital media and games ④ mobile internet ⑤ Internet of Things Engineering ⑥ Digital enterprise and e-commerce ⑦ Embedded system and software ⑧ Image processing and retrieval ⑨ Biological information processing software) |
| School of Electrical Engineering and Automation | Instrument Science and Technology | <ol style="list-style-type: none">1.Ultra precision manufacturing technology and equipment engineering2. Laser measurement and detection technology3. Photoelectric measurement technology and instruments4. Biological image measurement technology5. Radiation temperature measurement and testing technology in thermal and physical properties6. Measurement and control technology and signal processing7. Modern sensor technology and MEMS8. Test automation and control technology9. Intelligence tests and information processing technology |
| | Electrical Engineering | <ol style="list-style-type: none">1. New technology of modern electric network analysis and design2. Engineering electromagnetic field theory and numerical analysis3. The integrated motor system4. Micro & special motor and its control5. Electric intelligent and network technology6. Electrical reliability and testing technology7. Power System Analysis and Control8. Power system operation and operation9. Power electronic technology and application10. The electromagnetic drive control and power |



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| | | transmission control 11. Process control automation 12. Building automation 13. Flexible power system 14. Power optical measurement and protection |
| School of Science Department of Mathematics | 1. Fundamental Mathematics 2. Computing Mathematics 3. Probability Theory and Mathematical Statistics 4. Applied Mathematics, 5. Operational Research and Cybernetics | 1. functional analysis 2. Algebra and number theory 3. Topology 4. Geometry 5. partial differential equation 6. ordinary differential equation 7. Numerical analysis and scientific computing 8. Harmonic analysis and Fourier analysis 9. probability and mathematical statistics 10. optimization theory |
| School of Science Department of Physics | 1. Particle Physics and Atomic Nucleus Physics 2. Atom and Molecule Physics 3 Condensed Matter Physics | 1. Nonlinear optics and photonic devices 2. Military photonics 3. Nano photonics and nanometer materials physics 4. Optical information handling 5. Functional materials physics and applications 6. Physical crosses extreme conditions 7. Theory of Condensed Matter 8. Hadron physics 9. Hadron physics 10. Atomic and molecular physics 11. plasma physics |
| School of Science Department of Chemistry | 1. Inorganic Chemistry 2. Analytical Chemistry 3. Organic Chemistry 4. Physical Chemistry | 1. Laser spectroscopy applications 2. Supramolecular chemistry and molecular imprinting technology 3. Computational chemistry application 4. Inorganic, organic functional materials and composite material preparation 5. Energy conversion function materials and solar cells 6. Space and nanometer functional materials 7. Isolation and identification of natural drugs |



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| | | <ol style="list-style-type: none">8. And organic photochemistry in organic synthesis9. macromolecule materials10. Catalyst and catalytic technology11. asymmetric catalysis |
| School of Mechanical and Electrical Engineering | <ol style="list-style-type: none">1. Mechanical Manufacture and Automation2. Mechatronic Engineering3. Mechanical Design and Theory4. Engineering Management | <ol style="list-style-type: none">1. Precision and ultra-precision processing technology2. Micro-Nano manufacturing techniques3. Special processing and special material processing technology4. Modern design theory and method5. Digital Design and Manufacturing Technology6. Mechanical and electrical system control and automation7. Modern sensor and testing technology8. The fluid flow control and automation9. Robot technology and system10. Special transmission intelligent design and control11. Tribology basic theory and application technology12. Engineering structure design and analysis13. Vibration and Noise Control14. Biomechanical Engineering15. Production system automation technology16. Manufacturing system engineering management17. Vehicle Dynamics and control18. Vehicles of modern manufacturing technology |
| | Manufacturing Engineering of Aerospace Vehicle | <ol style="list-style-type: none">1. The space agencies and control2. Aerospace high precision manufacturing technology3. Space robot technology4. The space of special processing technology5. Aircraft digital manufacturing technology6. Aircraft ground simulation and testing technology |
| | Design (Industrial Design) | <ol style="list-style-type: none">1. Digital Media Design2. Industrial design3. environmental art design4. Chinese traditional art and digital design |
| | <ol style="list-style-type: none">1. Material Physics and | <ol style="list-style-type: none">1. Metal and ceramic materials2. Surface engineering |



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| School of Materials Science and Engineering | Chemistry 2. Material Science 3. Material Processing Engineering 4. Space Materials and Processing 5. Information Materials and Devices | 3. The material behavior under the space environment 4. Polymer matrix composite 5. Macroscopic Dynamics of composite materials 6. Information function material and devices 7. Biomedical materials and devices 8. Science and solidification of liquid forming technology 9. Plastic forming theory and technology 10. Between materials science and technology |
| School of Economy and Management | 1.Monetary Finance 2.International Trade | 1. International industry and technology transfer 2. International trade theory 3. Industry economic theory and method 4. The financial policy and regulation 5. financial economics 6. financial engineering |
| | Management Science and Engineering | 1. Management information system, decision support system 2. E-commerce, e-government, business intelligence 3. Systems engineering theory and application 4. Number of statistical analysis, Decision theory and the optimization model 5. Knowledge Management and Knowledge Engineering 6. project management 7. Construction management theory and method 8. Real estate investment and management 9. Housing and housing system |
| | 1.Accounting 2.Enterprise Management 3.Technical Economics and Management | 1. Project management decisions 2. Enterprise Innovation and Entrepreneurship 3. Business operations and strategy 4. Human resource management 5. enterprise marketing strategy 6. Business Logistics/Supply Chain Management 7. Financial accounting practice 8. Corporate finance 9. Cost and management accounting application |



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| | Public Administration | <ol style="list-style-type: none"> 1. Administrative management theory and research methods 2. Public sector reform and practice 3. Policy analysis and evaluation of projects 4. Local governance and development strategy |
| | Education Economics and Management | <ol style="list-style-type: none"> 1. engineering education and management research 2. Russian higher education research 3. Science and technology information and university research management research 4. Institutional Research |
| | Land Resource Management | <ol style="list-style-type: none"> 1. The urban land economic 2. Land Planning and Utilization 3. Land resources information management 4. Real estate development and management |
| School of Humanities and Social Science | Marxist philosophy | <ol style="list-style-type: none"> 1. Dialectics. Epistemology research 2. Historical materialism and social development research 3. Marxist philosophy and Chinese traditional philosophy research 4. Marxist philosophy research abroad |
| | Philosophy of Science and Technology | <ol style="list-style-type: none"> 1. Modern technology and technology philosophy research 2. Science and technology and social development research 3. The ecological philosophy and sustainable development research 4. Engineering philosophy research |
| | political economy | <ol style="list-style-type: none"> 1. Macroeconomic theory and policy 2. Investment in economic theory, 3. The study population resources and environment |
| | World Economy | <ol style="list-style-type: none"> 1. Macroeconomic theory and policy 2. International Trade Theory And Policy 3. Regional economic studies |
| | International Trade | <ol style="list-style-type: none"> 1. International trade theory and practice 2. The international financial theory and empirical 3. The WTO and economic globalization |
| | Sociology | <ol style="list-style-type: none"> 1. Research on social problems of information and network |
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| | | <ol style="list-style-type: none"> 2. Research development and modernization 3. The human way of life 4. Sociological research methods and methodology 5. Sociology engineering technology 6. Cultural sociology and social theory 7. Urban political and community research |
| | Marxist theory | <ol style="list-style-type: none"> 10. The basic principle of Marxism research 11. Foreign Marxism research 3. Ideological and political education theory and practice research 4. Ecological Marxism and socialism 5. Political ethics and social ethics research 6. Study of contemporary political thought and social ideological trend |
| School of Foreign Languages | English Language and Literature | <ol style="list-style-type: none"> 1. English literature 2. American literature 3. Other countries in English literature 4. literature theory |
| | Russian Language and Literature | <ol style="list-style-type: none"> 1. Russian literature 2. Russian and Chinese contrastive linguistics 3. translation theory and practice |
| | Foreign Linguistics and Applied Linguistics | <ol style="list-style-type: none"> 1. practical linguistics 2. Language and culture 3. theoretical linguistics 4. Contrastive linguistics 5. Russian grammar 6. Russian and Chinese translation theory and practice 7. The Chinese language 8. Intercultural communication research 9. Russian teaching method |
| School of Civil Engineering | Mechanics | <ol style="list-style-type: none"> 1. Structural vibration, impact, explosion and control 2. Structural damage, reliability, and health monitoring 3. Computational structural Dynamics and computational fluid Dynamics 4. Civil engineering intelligent materials and structures system |



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| | | 5. Civil engineering structure and the theory of system design |
| | Civil Engineering | 1. Steel structure. The wood structure and composite structure 2. Reinforced concrete structure and masonry structure 3. geotechnical engineering 4. Disaster prevention and reduction engineering and protective engineering 5. Bridge and Tunnel Engineering 6. Offshore engineering structure 7. civil engineering materials |
| School of Municipal and Environmental Engineering | 1.Municipal Engineering 2.Environmental Science and Engineering Urban Water Resource 4.Microbiology | 1. Water treatment theory and technology 2. Water supply and drainage engineering system and its optimization 3. Municipal solid waste management theory and technology 4. The use of water resources and urban planning 5. Air pollution control theory and technology 6. Pollution control of physical chemistry theory and technology 7. Pollution control of molecular ecology, systems biology and process |
| | Heating, Gas Supply, Ventilating and Air-Conditioning Engineering | 1. Heating calculation theory and application technology 2. Ventilation and air conditioning theory and application 3. Building energy efficiency and energy utilization 4. Gas storage and transportation and urban gas application |
| | 1.Hydraulics and River Mechanics 2.Hydromechanics | 1. Fluid Dynamics of municipal and environmental engineering 2. Flow and heat transfer numerical simulation in the process of exchange 3. The transient hydrodynamic process 4. In building environment and equipment engineering fluid Dynamics 5. The complex mixture flow in pipe |



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| School of Architecture | Architecture | <ol style="list-style-type: none">1. The architectural design and theory2. Public architecture design and its theory3. Green building theory and the energy saving technology4. City and building physical environment5. Chinese and foreign architectural history and heritage protection6. Urban design theory7. Interior design theory8. Building plan and its theory |
| | Urban Planning | <ol style="list-style-type: none">1. Urban and rural planning and design theory and method2. Urban form and planning theory3. Cold environment planning4. Urban historical and cultural protection planning theory5. Urban and rural security and regional planning theory |
| | Landscape Architecture | <ol style="list-style-type: none">1. Cold landscape architecture planning and design theory and method2. Landscape ecology theory and method3. Landscape architecture and landscape heritage protection theory4. Landscape architecture history and theory |
| | Design (Digital Media) | <ol style="list-style-type: none">1. Environmental art design and theoretical study2. Product design and theoretical research3. Visual communication design and theoretical study4. Public art design and theoretical study5. Design education and management research |
| School of Transportation Science and Technology | Bridge & Tunnel Engineering | <ol style="list-style-type: none">1. Bridge structure design theory and construction technology2. Vehicle bridge coupling vibration3. anti-seismic bridges4. Reinforce existing bridge condition assessment and testing5. The compound material to bridge structure6. bridge health monitoring |



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| | <ol style="list-style-type: none">1. Road & Railway Engineering2. Traffic Information Engineering & Control3. Transportation Planning & Management4. Vehicle Operation Engineering | <ol style="list-style-type: none">1. Road construction materials2. Road Bed & Road Surface Project3. Road alignment design theory4. Transportation planning and management5. transportation safety6. Traffic information and control7. Economics and management8. Logistics engineering9. Road traffic environment10. intelligent transportation system |
| School of Chemical Engineering & Technology | Macromolecule Chemistry and Physics | <ol style="list-style-type: none">1. Composite material surface modification and characterization2. Polymer modification3. functional polymer4. High performance fiber5. molecular simulation |
| | Chemistry Engineering and Technology | <ol style="list-style-type: none">1. electrochemical power source2. Electrochemical surface modification3. Composite polymer interface chemistry and engineering4. Polymerization and engineering5. green chemical technology6. Inorganic functional material preparation and application7. New type of catalyst8. Catalytic reaction engineering9. Biological process10. Biological synthesis and separation engineering |
| School of Law | Science of Law | <ol style="list-style-type: none">1 international public law2. International economic law3. private international law |
| School of Food Science and Engineering | <ol style="list-style-type: none">1. Biochemical Engineering2. Food Science | <ol style="list-style-type: none">1. Food production and preservation2. Food chemistry3. food biotechnology4. Functional food nutrition and extreme environment5. biochemical engineering (5.1 Biological process5.2 Biological synthesis and separation engineering |



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| Department of Sports | Theory of Sports Pedagogy and Training | <ol style="list-style-type: none">1. Track and field teaching training theory and method2. Snow and ice teaching training theory and method3. College sports and health teaching theories and methods |
| School of Electronics and Information Technology | Electromagnetism Field and Microwave Technology | <ol style="list-style-type: none">1. Microwave millimeter wave circuit theory and system2. Antenna theory and technology3. Microwave integrated circuits and CAD4. Electromagnetic compatibility technology5. The transient electromagnetic field theory and application6. Artificial electromagnetic material theory and application |
| | Information and Communication Engineering | <ol style="list-style-type: none">1. Broadband communications theory and technology2. Information transmission theory and coding technology3. Mobile communication and satellite related technologies4. The new system radar theory and technology5. Modern signal processing theory and technology6. Radar imaging and target recognition technology7. digital image processing theory and techniques8. Theories and Techniques of Anti-information9. Data acquisition theory and application10. Remote sensing information processing and application of technology |
| School of Life Science and Technology | Biology | <ol style="list-style-type: none">1. biology of cancer2. Microbial genetic engineering3. developmental biology4. Neurobiology5. space biology / aerospace medicine6. Protein structure and function7. structural molecular biology |
| | Biomedical Engineering | <ol style="list-style-type: none">1. Nano-biotechnology2. Medical physics and engineering3. Biology Information Technology4. Medical image processing5. Surgical navigation and planning |



哈尔滨工业大学
Harbin Institute of Technology

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| | | <ul style="list-style-type: none">6. medical instruments7. Biological electrical signal processing8. Tissue engineering and biomaterials |
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HIT Master's Degree Programs Taught in English

| Category | School | Major | Direction |
|-------------|---|---|---|
| Electricity | School of Astronautics Department of Electronic Science and Technology | 1.Physical Electronics 2.microsystem electronics and solid state electronics | 1. Laser spatial information and confrontation 2. Tunable laser, short wavelength laser 3. Nonlinear optics, quantum optics technology and application 4. Photoelectric device and technology 5. Laser spectrum and the mechanism of laser medium 6. Micro-Nano devices and systems 7. Mixed signal and rf IC/a 8. Integrated sensor technology 9. System level chip (SoC) and IP design technology |
| | School of Astronautics Department of control science and engineering | Control Science and Engineering | 1. Control Theory and Applications 2. Advanced Process Control 3. Modern testing technology 4. Navigation control system 5. inertial technology 6. Guidance, control and simulation 7. Pattern recognition theory and application |
| | School of Electronics and Information Technology | Electromagnetism Field and Microwave Technology | 1.Microwave millimeter wave circuit theory and system 2.Antenna theory and technology 3.Microwave integrated circuits and CAD 4.Electromagnetic compatibility technology 5.The transient electromagnetic field theory and application 6.Artificial electromagnetic material theory and application |
| | | Information and Communication Engineering | 1.Broadband communications theory and technology 2.Information transmission theory and coding technology |



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| | | | <ul style="list-style-type: none"> 3.Mobile communication and satellite related technologies 4.The new system radar theory and technology 5.Modern signal processing theory and technology 6.Radar imaging and target recognition technology 7.digital image processing theory and techniques 8.Theories and Techniques of Anti-information 9.Data acquisition theory and application 10.Remote sensing information processing and application of technology |
| | School of Computer Science and Technology | Computer Science and Technology | <ul style="list-style-type: none"> 1. High reliability and fault-tolerant computing 2. Mobile computing 3. The computer network and information security technology 4. Huge amounts of data calculation 5. Intelligent interface and human-computer interaction 6. Natural language computing technology 7. Enterprise computing and service computing 8. Biological computing and information technology 9. Multi-agent robotic technology 10. Artificial Intelligence and Pattern Recognition 11. Space computing technology and its application |
| | | <ul style="list-style-type: none"> 1. Mechanical Manufacture & Automation 2.Mechatronic Engineering 3.Mechanical | <ul style="list-style-type: none"> 1. Precision and ultra-precision processing technology 2. Micro-Nano manufacturing techniques 3. Special processing and special material processing technology 4. Modern design theory and method |



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| Mechanics | School of Mechanical and Electrical Engineering | Design and Theory 4. engineering management | <ul style="list-style-type: none"> 5. Digital Design and Manufacturing Technology 6. Mechanical and electrical system control and automation 7. Modern sensor and testing technology 8. The fluid flow control and automation 9. Robot technology and system 10. Special transmission intelligent design and control 11. Tribology basic theory and application technology 12. Engineering structure design and analysis 13. Vibration and Noise Control 14. Biomechanical Engineering 15. Production system automation technology 16. Manufacturing system engineering management 17. Vehicle Dynamics and control 18. Vehicles of modern manufacturing technology |
| | School of Mechanical and Electrical Engineering | Manufacturing Engineering of Aerospace Vehicle | <ul style="list-style-type: none"> 1. The space agencies and control 2. Aerospace high precision manufacturing technology 3. Space robot technology 4. The space of special processing technology 5. Aircraft digital manufacturing technology 6. Aircraft ground simulation and testing technology |
| | School of Energy Science and Engineering | Power Engineering and Engineering Thermo-physics | <ul style="list-style-type: none"> 2. Clean coal combustion and pollutant emission reduction 5. The flow of the impeller mechanical control, and its reliability optimization design technology research 3. Under extreme conditions of flow, heat transfer and mass transfer |



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| | | | <ol style="list-style-type: none"> 4. Electric propulsion 5. Microscale heat physical process and cross-cultural dimension analysis 6. The theory of infrared thermal image target and environment modeling 7. Fluid machinery/chemical machinery of control and system optimization 8. The comprehensive utilization of energy and section technology 9. Multiphase flow system engineering 10. Air pollution control technology 11. Convection, pneumatic coupling heat transfer and radiation 12. Dynamic mechanical pneumatic thermo Dynamics 13. The optimization of supernormal parameter steam turbine 14. Thermal system Dynamics and control machinery 15. The flow analysis of fluid power components 16. Automation in Petro-Chemical Industry |
| Materials | School of Materials Science and Engineering | <ol style="list-style-type: none"> 1. Material Physics and Chemistry 2. Material Science 3. Material Processing Engineering 4. Space Materials and Processing 5. Information Materials and Devices | <ol style="list-style-type: none"> 1. Metal and ceramic materials 2. Surface engineering 3. The material behavior under the space environment 4. Polymer matrix composite 5. Macroscopic Dynamics of composite materials 6. Information function material and devices 7. Biomedical materials and devices 8. Science and solidification of liquid forming technology 9. Plastic forming theory and technology 10. Between materials science and technology |
| | | 1.Monetary Finance | 1. International industry and technology transfer |



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| Management | School of Economy and Management | 2.International Trade | <ol style="list-style-type: none">2. International trade theory3. Industry economic theory and method4. The financial policy and regulation5. financial economics6. financial engineering |
| | School of Economy and Management | Management Science and Engineering | <ol style="list-style-type: none">1. Management information system, decision support system2. E-commerce, e-government, business intelligence3. Systems engineering theory and application4. Number of statistical analysis, Decision theory and the optimization model5. Knowledge Management and Knowledge Engineering6. project management7. Construction management theory and method8. Real estate investment and management9. Housing and housing system |
| | School of Economy and Management | <ol style="list-style-type: none">1.Accounting2.Enterprise Management3.Technical Economics and Management | <ol style="list-style-type: none">1. Project management decisions2. Enterprise Innovation and Entrepreneurship3. Business operations and strategy4. Human resource management5. enterprise marketing strategy6. Business Logistics/Supply Chain Management7. Financial accounting practice8. Corporate finance9. Cost and management accounting application |
| | School of Economy and Management | Public Administration | <ol style="list-style-type: none">1. Administrative management theory and research methods2. Public sector reform and practice3. Policy analysis and evaluation of projects4. Local governance and development strategy |



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| | School of Economy and Management | Education Economics and Management | <ol style="list-style-type: none"> 1. engineering education and management research 2. Russian higher education research 3. Science and technology information and university research management research 4. Institutional Research |
| | School of Economy and Management | Land Resource Management | <ol style="list-style-type: none"> 1. The urban land economic 2. Land Planning and Utilization 3. Land resources information management 4. Real estate development and management |
| Civil Engineering | School of Civil Engineering | Mechanics | <ol style="list-style-type: none"> 1. Structural vibration, impact, explosion and control 2. Structural damage, reliability, and health monitoring 3. Computational structural Dynamics and computational fluid Dynamics 4. Civil engineering intelligent materials and structures system 5. Civil engineering structure and the theory of system design |
| | School of Civil Engineering | civil engineering | <ol style="list-style-type: none"> 1. Steel structure. The wood structure and composite structure 2. Reinforced concrete structure and masonry structure 3. geotechnical engineering 4. Disaster prevention and reduction engineering and protective engineering 5. Bridge and Tunnel Engineering 6. Offshore engineering structure 7. civil engineering materials |
| | School of Municipal and Environmental Engineering | <ol style="list-style-type: none"> 1. Municipal Engineering 2. Environmental Science and 3. Engineering Urban Water Resource | <ol style="list-style-type: none"> 1. Water treatment theory and technology 2. Water supply and drainage engineering system and its optimization 3. Municipal solid waste management theory and technology 4. The use of water resources and urban planning |



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| | | 4. Microbiology | 5. Air pollution control theory and technology 6. Pollution control of physical chemistry theory and technology 7. Pollution control of molecular ecology, systems biology and process |
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