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| **School** | **Major** | **Research Field** |
| School of Instrumentation Science and Engineering | Instrument Science and Technology | 1. Ultra Precision Measurement Technology and Instruments2. Laser Measurement and Detection Technology3. Modern Microscopic Technology and Instruments4. Visual and Photoelectric Measurement Technology5. Precision Electromagnetic Measurement Technology and Instruments6. Advanced Acousto-optic Materials and Instruments7. Technology of Radiation Temperature Measurement and Thermo-physical Properties Measurement8. Navigation Instruments and System Technology9. Bioinformatics Detection and Medical Instruments10.Ultra-Precision Control Technology and Instruments |
| School of Electrical Engineering and Automation | Electrical Engineering | 1. Motor and Electrical Appliances2. Power Electronics and Power Transmission3. Power System and Automation4. Electrician Theory and New Technique |
| School of Energy Science and Engineering | Power Engineering and Engineering Thermo-physics | 1. Engineering Thermo-physics2. Thermal Engineering3. Power Machinery and Engineering4. Fluid Machinery and Engineering5. Refrigeration and Cryogenic Engineering |
| Faculty of Computing | Computer Science and Technology | 1. High Reliable High Performance Computer Architecture2. Mobile Computing and Embedded Computing3. Computer Network and Information Security4. Computing Theory5. Huge Amounts of Data Calculation6. Service Computing7. Biological Computing and Bioinformatics8. Intelligent Human-Computer Interaction and Digital Media Technology9. Artificial Intelligence and Pattern Recognition10. Multiple Languages and Chinese Information Processing11. Social Computing |
| Software Engineering | 1. Software Service Engineering2. Software Engineering and Software Architecture3. Software Trustworthiness and Reliability4. Intelligent Software Theory and Machine Learning5. Business Intelligence and Data Mining6. Field of Software Engineering |
| School of Astronautics | Control Science and Engineering | 1. Navigation, Guidance and Control2. Control Theory and Control Engineering3. Detection Technology and Automatic Equipment4. Robots and Intelligent Systems5. Systems Engineering and Simulation |
| Mechanics | 1. Fatigue and Fracture Mechanics2. Structural Optimization Design3. Micromechanics4. Solid Dynamics5. Thermo/Mechanical/Electrical/Chemical Multi-field Coupling Mechanics6. Material and Structural Mechanics in Extreme Environment7. Advanced Composites and Its Structural Lightweight Theory8. Composite Materials and Its Structural Mechanics9. Reliability Analysis and Design of Composite Structures10. Intelligent Materials and Structural Mechanics11. Aerospace Structural Mechanics12. Material/ Structure/Function Integrated Design13. Structural Dynamics and Vibration Control14. Nonlinear Dynamics15. Hydrodynamics16. Dynamics Inverse Problem and Fault Diagnosis |
| Aeronautical and Astronautical Science and Technology | 1. Aircraft System Design2. Flight Dynamics and Control3. Aircraft Intelligent Autonomous Navigation, Guidance and Control4. Deep Space Flight and Landing Return5. Integrated Design and Simulation of Aircraft6. Dynamics and Control of Complex Spacecraft7. Space Environmental Effects of Spacecraft and its Countermeasures8. Structure and Protection of Aerospace Vehicles |
| Optical Engineering | 1. Space Optical Information Acquisition 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 Optical Technology10. Photoelectric Device and Technology |
|  Electronics Science and Technology | 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. Integrated Circuits Design and Application8. Integrated Sensor Technology9. Advanced SoC and Reliability Design of Integrated Circuits10. Microwave Transmission Theory and Antenna System |
| School of Mechatronics Engineering | Mechanical Engineering | 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. 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 Advanced Manufacturing Technology19. Modern Design Theory and Method Of Vehicle20. Vehicle Electronics and Control |
| Aeronautical and Astronautical Science and Technology | 1. Space Structure and Control2. Aerospace High Precision Manufacturing Technology3. Space Robot Technology4. Space of Special Processing Technology5. Aircraft Digital Manufacturing Technology6. Aircraft Ground Simulation and Testing Technology |
| School of  Materials Science and Engineering | Materials Science and Engineering | 1. Intelligent Materials and Devices2. Advanced Space Materials and Environmental Effects3. Optoelectronic Information Science and Engineering4. Advanced Metal and Ceramic Materials5. Solidification Science and Engineering6. Plastic Processing7. Material Joining Science and Engineering |
| School of Management | Management Science and Engineering | 1. Management Information Systems and Operation Management 2. E System Engineering and Optimization3. Big Data and Business Analysis4. Electronic Health |
| Business Administration | 1. Enterprise Strategic Management Theory and Method2. Organization and Human Resource Theory and Method3. Marketing Theory and Method4. Accounting Policies and Accounting Information Disclosure5. Innovation Theory,Method and Policy6. Investment and Financing Theory and Financial Engineering7. Sustainable Development Theory, Method and Policy8. Management Corporate Governance and Corporate Value |
| Public Management | 1. Public Policy Analysis and Behavior Simulation2. Urban and Government Governance Innovation3. Public Policy Impact Assessment4. Infrastructure Economy and Management |
| School of Humanities, Social Science and Law | Sociology | 1. Industrial Sociology2. Virtual Social Anthropology3. Social Construction and The Underclass4. Quantitative Social Research Methods5. Research on Network Society6. Tourism Sociology |
| School of Physics | Physics | 1. Nonlinear Optics and Laser Spectroscopy2. Military Information Photonics Technology and Devices3. Nano Photonics and Surface Plasmon Optics4. Quantum Information and Quantum Dynamics5. Cross The Extreme Conditions Of Condensed Matter Physics6. Physics and High Energy Heavy-lon Collisions HadronPhenomenological Study7.Physical Function of Modern Materials and Nano Device8. Particulate Matter and Soft Matter Physics9. Plasma Transport and Its Interaction with Light Field10. Bioluminescence and Optical Imaging Technology |
| School of Mathematics | Mathematics | 1. Analysis and Partial Differential Equations2. Algebra and Topology3. Ordinary Differential Equation and Dynamical System4. Science and Engineering Computation5. Inverse Problem of Mathematical Physics6. Operational Control and Optimization |
| Statistics | 1. Statistics and Its Application in Engineering2. Financial Statistics and Big Data Analysis3. Biology and Quantum Statistics |
| School of Environment | Civil Engineering | 1. Urban Drinking Water Security2. Theory and Technology of Pollution (Waste) Water Treatment and Resource Utilization3. Prevention and Control of Water Pollution and Sustainable Utilization of Water Resources4. Hydro-chemical Environment and Functional Materials5. Safe Disposal and Resource Utilization of Municipal Solid Waste6. Urban Water System Digitalization and Pipeline Network Optimization7. Urban Water Circulation System |
| Environmental Science and Engineering | 1. Prevention and Control of Water Pollution and Sustainable Utilization of Water Resources2. Hydro-chemical Environment and Functional Materials3. Safe Disposal and Resource Utilization of Municipal Solid Waste4. Formation Mechanism and Prevention and Control of Air Pollution5. Regional Environmental Pollution Prevention and Control and Ecological Engineering6. Environmental System Simulation Prediction and Planning Management |
| School of Life Science and Technology | Biomedical Engineering | Engineering:1. Biomedical Information Technology2. Nano Biotechnology and Biological Sensors3. Biomedical Detection Technology4. Biological Electromechanical Integration Technology5. Biomedical Image Processing6. Tissue Engineering and TechnologyScience:1. Neurobiology2. Microbial Biotechnology3. Developmental Biology4. Structural Molecular Biology5. Tumor Cell Biology6. Space Molecular Cell Biology7. Genetics and Bioinformatics |
| Biology | 1. Contains Protein Structure and Function
2. Tumor Cell Biology
3. Development and Epigenetic Regulation
4. Biomass Reuse and Microbial Control
5. Cognitive Neurobiology
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| School of Transportation Science and Engineering | Communication and Transportation Engineering | 1. Road Construction Materials2. Composite Sub-grade Stability Technology3. Pavement Dynamics and Design Method4. Road Nondestructive Testing Technology5. Road Transportation Safety6. Transportation Planning7. Traffic Economy8. Intelligent Transportation System9. Traffic Management and Control |
| Civil Engineering | 1. Bridge Structure and Durability2. Bridge Monitoring.Monitoring and Safety Evaluation3. Bridge Seismic and Axle Vibration4. The Bridge Reinforcement5. Advanced Composite Applications |
| School of Civil Engineering | Civil Engineering | 1. Steel, Wood and Composite Structures2. Concrete Structure,Masonry Structure and New Structure3. Bridges and Ocean Engineering Structures4. Civil Engineering Materials5. Disaster Prevention and Mitigation Works and Protection Works6. Geotechnical and Underground Engineering7. Civil Engineering Construction and Management |
| Mechanics | 1. Structural Vibration,Impact, Explosion and Control2. Structural Damage, Reliability and Health Monitoring3. Computational Structural Mechanics and Computational Fluid Dynamics4. Civil Engineering Intelligent Materials and Structural System5. Civil Engineering Structure and System Design Theory |
| School of Architecture | Architecture | 1. Architectural Design and Theory2. Public Architecture Design and its Theory3. Green Building and Energy Saving Technology4. City and Building Physical Environment5. Chinese and Foreign Architectural History and Heritage Protection6. Urban Design and Interior Design |
| Urban and Rural Planning | 1. Urban and Rural Planning Theory and Methods2. Urban Historical&Cultural Protection and Planning Design3. Cold to Urban and Rural Living Environment Planning4. Urban Form and Landscape Planning5. Urban and Rural Security and Regional Planning |
| Landscape Architecture | 1. History and Theory of Western Landscape2. Landscape Heritage Protection and Utilization3. Landscape Planning and Design and Theory4. Landscape Architecture Engineering and Technology5. Ecology Landscape6. Tourist Recreation and Planning and Design |
| Civil Engineering | 1. Heating Calculation Theory and Application Technology2. Ventilation and Air Conditioning Theory and Application3. Building Energy Efficiency and Energy Utilization4. Gas Storage and Transportation and Urban Gas Application5. HVAC Systems and Control Theory and Technology6. Built Environment |
| School of Electronics and Information Engineering | Information and Communication Engineering | 1. Wireless Communication and Network2. Theory and Technology of Space Communication3. New System Radar Theory and Technology4. Microwave Imaging and Target Recognition Technology5. Remote Sensing Information Processing Technology6. Electronic Countermeasure Theory and Technology7. Measurement and Control Theory and Technology |
| School of Chemistry and Chemical Engineering | Chemical Engineering and Technology | 1. Surface and Interface Chemistry2. Polymer Composite and Modification3. Chemical Power Source and Electrochemical Power Engineering4. Preparation and Performance of Functional Materials5. Biological Synthesis and Separation Engineering6. Bimolecular Engineering7. New Energy Chemical Industry |