**APSCO HIT PhD-Program-2022**

|  |  |  |
| --- | --- | --- |
| Schools | Disciplines | Research Fields |
| Astronautics | 0811Control 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 |
| 0801Mechanics | 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 |
| 0825Aeronautical 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 |
| Mechatronics Engineering | 0825 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 |
| 0802Mechanical 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 |