Research Supervisor and Research Subject

[Master Course・Doctor Course]

Information Science and Manufacturing Engineering

Supervisor		Research Subject	Master	Doctor	Remarks
Professor	Yasutaka Ando	①Surface Engineering ②Energy Conversion Materials ③Metallic Materials Main research themes : Oxide semiconductor film deposition by solution precursor plasma spray, High rate diamond synthesis by thermal plasma CVD	A(B)	I	
Professor	Yuichi Nakajo	①Inelastic Behavior of Materials and Structures ②Structure Stability ③Small-scale Solar Thermal Applications (Solar Cooker etc.) Main research themes : Design of Panel Type Solar Cookers Employing the Ray Tracing Software.	A(B)	I	
Professor	Yasuyuki Nemoto	①Renewable Energy ②Energy and Environmental Engineering ③Fluid and Thermal Engineering Main research themes : Performance Improvement of Renewable Energy Systems (Wind, Hydro and Biomass systems),Sustainability Assessment of Renewable Energy Systems	A	J	
Professor	Yasuo Sakurai	①Oil-hydraulics and Pneumatics ②Fluid Mechanics ③Functional Fluid Main research themes : Development of Component to Reduce Pressure Pulsation for Oil-hydraulic System, Evergy Saving on Electro-pneumatic Hybrid System, Development of Immersion Cooling System for CPU by Electro-conjugate Fluid	B	I	
Professor	Shigeaki Kobayashi	①Structural and Functional Materials ②Grain Boundary Engineering ③Nanocrystalline Materials Main research themes : Grain Boundary Engineering for Development of High Performance and Multifunctional Materials, Development of High Strength Nanocrystalline Materials by Electrodeposition	B	I	
Professor	Ding Dayu	①Pyrotechnic Engineering ②Combustion and Explosion Engineering ③Applied Technology of Energetic Materials Main research themes : Measurement and analysis for clolored flame of pyrotechnics Measurement and analysis for acoustic characteristics of pyrotechnics Measurement and analysis for combustion explosion phenomena of energetic materials	A		
Professor	Yutaka Doshida	①Electronic Ceramics and their Applications ②Material Design・Synthesis・Process ③Material and Electrical Properties Characterization Main research themes : Environment-friendly Piezoelectric Ceramics and their Applications	C		
Professor	Tatsuya Doi	①Power Magnetics ②Electromagnetic Field Analysis ③Quantum Computation Theory Main research themes : Development of Novel Self-organizing Power Magnetic device	C		
Professor	Kazuya Yokoyama	①Applied Superconductivity ②Magnet Technology ③Power System Main research themes : Improvement of magnetizing method of superconducting bulk magnet and its application	C		
Professor	Akinori Kimura	①Particle Physics Simulation ②Computer Visualization ③3D Computer Graphics Main research themes : Development on Monte Carlo radiation simulation and computer visualization	D	G	
Professor	Hironori Hiraishi	①AI Application ②Cognitive Computing ③User Interface Design Main research themes : Cognitive analysis and modeling from biological sensor data. Design of new user interfaces which can consider user's situations. Development of artificial intelligence applications by using machine learning techniques.	D		

・Master Course

A Renewable Energy and Environmental Engineering
B Mechanical System Engineering
C Electrical and Electronic Engineering
D Systems and Information Engineering

・Doctor Course

G Information Systems Engineering
H Electronics Information Engineering
I Manufacturing Systems Engineering
J Energy Conversion Engineering