

## Graduate School of Computer and Information Sciences [Master's and Doctoral]

### Major in Computer and Information Sciences

Name	Academic Areas	Keywords
Mina AKAISHI	Intellect engineering	Information compilation technology based on story structure; management, search and visualization techniques for knowledge media; science of historical knowledge and so forth
Katsunobu ITO	Speech processing, Multimodal dialogue systems, Music information processing	Speech recognition, multimodal dialogue systems, speech interfaces, information retrieval, music information processing, data science
Vladimir SAVCHENKO	Geometric modeling, CG, animation	Hybrid volume modeling, which include mathematical models, numerical methods, software algorithms, and programming realization
Kaoru UCHIDA	Pattern and image recognition and its applications	Applications of pattern and image recognition, biometrics, real-world innovation with information science
Satoshi OBANA	Encryption, Information security	Encrypting protocols, including secret sharing schemes and secure evaluation
Takafumi KOIKE	3D imaging technology, Computer graphics, Augmented reality	Real world-oriented media, optical information processing, physical computing, real-time rendering, computational photography
Nobuhiko KOIKE	Parallel and distributed processing architectures and their applications	Research into practical applications for SMP PCs and PC clusters, intelligent parallel processing applications, implementation of distributed and parallel processing environments
Yuji SATO	Evolutionary computation, Intelligent computing and its applications	Genetic algorithms, Evolutionary algorithms, Swarm Intelligence, Reinforcement Learning for Dynamic and/or Multimodal problems
Yasunari ZEMPO	Computational materials science and computation method development, Development of new computational algorithms in large-scale parallel computational technologies	High performance computing and its applications such as optical properties of materials and optical propergations
Toshihisa NISHIJIMA	Algebraic coding theory and its applications	Aasymptotically good algebraic coodes, Weight enumerators, Maximum distance separable codes
Hiroshi HANAIZUMI	Image processing and recognition, Remote sensing, Image measurement	Remote sensing, image processing for medical purposes, facial recognition, and mobile camera applications

Toshio HIROTSU	Internet, Operating systems, Ubiquitous computing	Dynamic relay control mechanisms for distributed virtual routers
Runhe HUANG	Artificial intelligence, Mobile computing, Ubiquitous systems software	Knowledge representation and configuration, Knowledge discovery and fusion, Human cognitive process modeling, Brain modeling for Internet machine/robot/system/organism/biomass. Self-observation, self-learning, self-organizationbased self-evolutionary brain model.
Satoru FUJITA	High speed XML processing, Web services, Service-oriented software	Service strategy modeling, social simulation analyses, basic technologies for implementing the XML and Web services that sustain the service industry-centered society
Hiroshi HOSOBÉ	User interfaces, Information visualization, Computer graphics, Constraint programming	Mathematical approaches to the construction of visual and interactive systems
Jianhua MA	Ubiquitous network and computing, smart object, space and service, autonomic and trusted system	Ubiquitous networking and communication
Shuichi YUKITA	Visualization of geometrical and abstract mathematical concepts	Using diagrams and other methods to visualize abstract concepts
Yamin LI	Computer architectures, Parallel and distributed systems, Mobile ad hoc networks	Interconnection networks, routing and broadcasting algorithms
Shaoying Liu	Software engineering, Formal engineering methods for software development, Intelligent software engineering environments	Developing the SOFL formal engineering method for software modeling, checking, and testing
Toru WAKAHARA	Character recognition, Distortion-tolerant image matching, Pattern recognition	Text detection and character recognition in scene images, object tracking, and human behavior recognition
Akira SASAKI	Programming language processing systems, Domain-specific languages, Attribute grammars	Programming language processing system implementation technologies and theory