

**Notification about Revision of the List of Faculty Members and Specialization Areas
on Application Guidelines for Graduate Admission 2022
Degree Programs in Systems and Information Engineering
(Master's / Doctoral / 5-year Doctoral Programs)**

We hereby that give notice the list of faculty members and specialization areas is revised.

The list posted in "4.Information and Hints for Admission" in the application guidelines has been updated.

【Master's Programs】

Master's Program in Policy and Planning Sciences

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
		(Omitted)
	ANDO, Hiroyasu	Mathematical modeling of bio-inspired complex networks and its application to social systems
		(Omitted)
	【ARIMA, Sumika】	Supply chain management, Logistics.
		(Omitted)



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
		(Omitted)
	<u>(Removed)</u>	<u>(Removed)</u>
		(Omitted)
	【ARIMA, Sumika】	<u>Production systems engineering, Operations management, High-dimensional data analysis</u> , Innovation systems and regional vitalization.
		(Omitted)
	<u>【EOM Sunyong】</u>	<u>Town planning/Architectural planning - Urban Analysis, Spatial Information Science, Land Use Planning</u>
		(Omitted)

Master's Program in Service Engineering

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
		(Omitted)
	ANDO, Hiroyasu	Mathematical modeling of bio-inspired complex networks and its application to social systems
		(Omitted)
	【ARIMA, Sumika】	Supply chain management, Logistics.
		(Omitted)



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
		(Omitted)
	<u>SATO-ILIC, Mika</u>	<u>Multi-dimensional data analysis, statistics: latent structure models, fuzzy clustering, and multi-way data theory.</u>
		(Omitted)
	<u>(Removed)</u>	<u>(Removed)</u>
		(Omitted)
	【ARIMA, Sumika】	<u>Production systems engineering, Operations management, High-dimensional data analysis,</u> Innovation systems and regional vitalization.
		(Omitted)

Master's Program in Computer Science

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Information Mathematics and Modeling	(Omitted)	
	IMAKURA Akira	Numerical analysis: Numerical algorithms for solving linear Systems, eigenvalue problems and matrix computation-based machine learning.
	(Omitted)	
Software System	(Omitted)	
	KITAGAWA Hiroyuki	Database systems and data engineering : Information integration, WWW and DB, XML databases, multimedia databases, and DBMS architecture.
	(Omitted)	
Computer Architecture	(Omitted)	
	YASUNAGA Moritoshi	VLSI engineering: VLSI design and implementation of parallel and distributed systems and evolutionary systems.
	(Omitted)	
	【KANAZAWA Kenji】	VLSI Engineering, Reconfigurable computing, Accelerator for hard computation problems using reconfigurable LSI.
	【KOBAYASHI Ryohei】	FPGA applications, Reconfigurable Computing System, High-speed RTL Simulation.
(Omitted)		
Media Engineering	(Omitted)	
	YAMADA Takeshi	Speech and acoustic information processing: speech recognition, sound scene understanding, multi-channel signal processing, media quality assessment, and e-learning.
	(Omitted)	
Intelligent System	(Omitted)	
	SAKUMA Jun	Security and Privacy for Artificial Intelligence: Machine Learning, Artificial Intelligence, Data Privacy, Applied Cryptography.
	(Omitted)	
Professors of Cooperative Graduate School	(Omitted)	
	INO Shuichi (National Institute of Advanced Industrial Science and Technology)	Human machine interface, soft actuator technology, information accessibility, haptic interface design, healthcare and quality of life technology, rehabilitation engineering.
	(Omitted)	
	TANIMURA Yusuke (National Institute of Advanced Industrial Science and Technology)	Parallel and distributed storage. Large-scale data processing. Cloud computing. Grid computing. E-science applications.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
Information Mathematics and Modeling	(Omitted)	
	IMAKURA Akira	<u>Numerical algorithms for solving linear Systems,</u> eigenvalue problems and matrix computation-based machine learning.
	(Omitted)	
	<u>【BOGDANOVA Anna】</u>	<u>Computational science - Machine Learning, Distributed Data Analysis, Privacy, Interpretability</u>
	(Omitted)	
Software System	(Omitted)	
	KITAGAWA Hiroyuki	Database systems and data engineering : <u>Big data, stream processing, data mining, data integration, sleep data analysis, machine learning and intelligence for data analysis</u>
	(Omitted)	
Computer Architecture	(Omitted)	
	YASUNAGA Moritoshi	<u>FPGAs, Hardware accelerator, Reconfigurable computing</u>
	(Omitted)	
	<u>【KANAZAWA Kenji】</u>	<u>FPGAs, Hardware accelerator,</u> Reconfigurable computing
	<u>【KOBAYASHI Ryohei】</u>	FPGA applications, Reconfigurable Computing System, <u>GPU-FPGA Cooperative Computation.</u>
(Omitted)		
Media Engineering	(Omitted)	
	YAMADA Takeshi	Speech and acoustic information processing: <u>speech emotion recognition,</u> sound scene understanding, multi-channel signal processing, and media quality assessment.
	(Omitted)	
Intelligent System	(Omitted)	
	SAKUMA Jun	<u>Artificial Intelligence and Machine learning: Artificial intelligence, Machine Learning, Trustworthy AI, AI security</u>
	(Omitted)	
	<u>【LEE Jieun】</u>	Human factors, Human-machine interaction, Cognitive science, trust in automation, system design
	(Omitted)	

Professors of Cooperative Graduate School	(Omitted)	
	<u>(Removed)</u>	<u>(Removed)</u>
	<u>KOBAYASHI Takumi</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>Statistical pattern recognition and machine learning: Deep learning, Feature extraction and representation, Image classification, Video classification, Multidimensional sensor data analysis</u>
	(Omitted)	
	<u>TANIMURA Yusuke</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>Parallel and distributed storage. Large-scale data processing. Cloud computing. Grid computing. E-science applications.</u>
(Omitted)		

Master's Program in Intelligent and Mechanical Interaction Systems

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Man-Machine System and Robotics	(Omitted)	
	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
System Design	(Omitted)	
	<u>[IENAGA Naoto]</u>	<u>Life / Health / Medical informatics, Aquatic bioproduction science, Medical systems - Machine Learning, Computer Vision, Computer Science</u>
	(Omitted)	
Man-Machine System and Robotics	(Omitted)	
	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot, <u>co-bot (human collaborative robot)</u>
	(Omitted)	
Professor of Cooperative Graduate School	(Omitted)	
	<u>TSURUGIZAWA Tomokazu</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>MRI, Medical Image Processing, Electroencephalography, Machine Learning, Brain Machine Interface, Brain Science, Cognitive Neuroscience.</u>
	<u>HASHIMOTO Naohisa</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>Automated Vehicles, Driving Assistance Systems, MaaS, ITS, Remote Control</u>
	(Omitted)	

Master's Program in Engineering Mechanics and Energy

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Professors of Cooperative Graduate School	(Omitted)	
	ZHOU Haoshen	Research on electrode active materials and electrolytes for energy storage technology.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
Professors of Cooperative Graduate School	(Omitted)	
	<u>(Removed)</u>	<u>(Removed)</u>
	(Omitted)	

【Doctoral Programs】

Doctoral Program in Policy and Planning Sciences

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
	(Omitted)	
	ANDO, Hiroyasu	Mathematical modeling of bio-inspired complex networks and its application to social systems.
	(Omitted)	
	【ARIMA, Sumika】	Supply chain management, Logistics.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
	(Omitted)	
	<u>(Removed)</u>	<u>(Removed)</u>
	(Omitted)	
	【ARIMA, Sumika】	<u>Production systems engineering, Operations management, High-dimensional data analysis</u> , Innovation systems and regional vitalization.
	(Omitted)	
	<u>【EOM Sunyong】</u>	<u>Town planning/Architectural planning - Urban Analysis, Spatial Information Science, Land Use Planning</u>
	(Omitted)	

Doctoral Program in Computer Science

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Information Mathematics and Modeling	(Omitted)	
	IMAKURA Akira	Numerical analysis: Numerical algorithms for solving linear systems, eigenvalue problems and matrix computation-based machine learning.
	(Omitted)	
	HIRATA Yoshito	Nonlinear time series analysis: theory and its applications
	(Omitted)	
Software System	(Omitted)	
	KITAGAWA Hiroyuki	Database systems and data engineering : Information integration, WWW and DB, XML databases, multimedia databases, and DBMS architecture.
	(Omitted)	
Computer Architecture	(Omitted)	
	△YASUNAGA Moritoshi	VLSI engineering: VLSI design and implementation of parallel and distributed systems and evolutionary systems.
	(Omitted)	
	【KANAZAWA Kenji】	VLSI Engineering, Reconfigurable computing, Accelerator for hard computation problems using reconfigurable LSI.
	【KOBAYASHI Ryohei】	FPGA applications, Reconfigurable Computing System, High-speed RTL Simulation.
(Omitted)		
Media Engineering	(Omitted)	
	SUZUKI Taizo	Multi-perception media processing: Signal processing, image/video processing, compression, perceptual encryption, information hiding, sparse representation, filter banks/wavelets.
	YAMADA Takeshi	Speech and acoustic information processing: speech recognition, sound scene understanding, multi-channel signal processing, media quality assessment, and e-learning.
	(Omitted)	
Intelligent System	(Omitted)	
	SAKUMA Jun	Security and Privacy for Artificial Intelligence: Machine Learning, Artificial Intelligence, Data Privacy, Applied Cryptography.
	(Omitted)	
Professors of Cooperative Graduate School	(Omitted)	
	INO Shuichi (National Institute of Advanced Industrial Science and Technology)	Human machine interface, soft actuator technology, information accessibility, haptic interface design, healthcare and quality of life technology, rehabilitation engineering.

(Omitted)	
TANIMURA Yusuke (National Institute of Advanced Industrial Science and Technology)	Parallel and distributed storage. Large-scale data processing. Cloud computing. Grid computing. E-science applications.
(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
Information Mathematics and Modeling	(Omitted)	
	IMAKURA Akira	<u>Numerical algorithms for solving linear Systems,</u> eigenvalue problems and matrix computation-based machine learning.
	(Omitted)	
	HIRATA Yoshito	Nonlinear time series analysis: theory and its applications, <u>recurrence plots, and 3D reconstructions of chromosomes.</u>
	(Omitted)	
	【BOGDANOVA Anna】	Computational science - Machine Learning, Distributed Data Analysis, Privacy, Interpretability
Software System	(Omitted)	
	KITAGAWA Hiroyuki	Database systems and data engineering : <u>Big data, stream processing, data mining, data integration, sleep data analysis, machine learning and intelligence for data analysis</u>
	(Omitted)	
Computer Architecture	(Omitted)	
	△YASUNAGA Moritoshi	<u>FPGAs,</u> Hardware accelerator, <u>Reconfigurable computing.</u>
	(Omitted)	
	【KANAZAWA Kenji】	<u>FPGAs,</u> Hardware accelerator, <u>Reconfigurable computing.</u>
	【KOBAYASHI Ryohei】	FPGA applications, Reconfigurable Computing System, <u>GPU-FPGA Cooperative Computation.</u>
(Omitted)		
Media Engineering	(Omitted)	
	SUZUKI Taizo	Multi-perception media processing: <u>Sparse transforms, graph signal processing, deep learning,</u> image/video processing, compression coding, <u>perceptual security.</u>
	YAMADA Takeshi	Speech and acoustic information processing: <u>speech emotion recognition,</u> sound scene understanding, multi-channel signal processing, and media quality assessment.
	(Omitted)	

Intelligent System	(Omitted)	
	SAKUMA Jun	<u>Artificial Intelligence and Machine learning: Artificial intelligence, Machine Learning, Trustworthy AI, AI security.</u>
	(Omitted)	
	<u>[LEE Jieun]</u>	<u>Human factors, Human-machine interaction, Cognitive science, trust in automation, system design</u>
	(Omitted)	
Professors of Cooperative Graduate School	(Omitted)	
	<u>(Removed)</u>	<u>(Removed)</u>
	<u>KOBAYASHI Takumi</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>Statistical pattern recognition and machine learning: Deep learning, Feature extraction and representation, Image classification, Video classification, Multidimensional sensor data analysis</u>
	(Omitted)	
	TANIMURA Yusuke (National Institute of Advanced Industrial Science and Technology)	Parallel and distributed storage. Large-scale data processing. Cloud computing. <u>Continuum computing.</u> E-science applications.
	(Omitted)	

Doctoral Program in Intelligent and Mechanical Interaction Systems

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Man-Machine System and Robotics	(Omitted)	
	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
System Design	(omitted)	
	<u>[IENAGA Naoto]</u>	<u>Life / Health / Medical informatics, Aquatic bioproduction science, Medical systems - Machine Learning, Computer Vision, Computer Science</u>
	(omitted)	
Man-Machine System and Robotics	(omitted)	
	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot, <u>co-bot (human collaborative robot)</u>
	(omitted)	
Professor of Cooperative Graduate School	(omitted)	
	<u>TSURUGIZAWA Tomokazu</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>MRI, Medical Image Processing, Electroencephalography, Machine Learning, Brain Machine Interface, Brain Science, Cognitive Neuroscience.</u>
	<u>HASHIMOTO Naohisa</u> <u>(National Institute of Advanced Industrial Science and Technology)</u>	<u>Automated Vehicles, Driving Assistance Systems, MaaS, ITS, Remote Control</u>
	(omitted)	

Doctoral Program in Engineering Mechanics and Energy

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Professors of Cooperative Graduate School	(Omitted)	
	ZHOU Haoshen	Research on electrode active materials and electrolytes for energy storage technology.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
Professors of Cooperative Graduate School	(Omitted)	
	<u>(Removed)</u>	<u>(Removed)</u>
	(Omitted)	

【5-year Doctoral Programs】

Doctoral Program in Empowerment Informatics

(Change from)

Field of Research	Faculty	Detailed Description of Research Field
Supplementation	(Omitted)	
	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot.
	(Omitted)	



(Change to)

Field of Research	Faculty	Detailed Description of Research Field
Supplementation	(Omitted)	
	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot, <u>co-bot (human collaborative robot)</u>
	(Omitted)	
Harmony	(Omitted)	
	<u>[IENAGA Naoto]</u>	<u>Life / Health / Medical informatics, Aquatic bioproduction science, Medical systems - Machine Learning, Computer Vision, Computer Science</u>
	(Omitted)	