

# Next-generation Digital Infrastructure

---

Next-generation Digital Infrastructure Research Area performs research and graduate education on the fundamentals of ICT systems, to realize and extend comfortable, dependable , secure E-Society.

## ■ Overview:

Computer systems and networks have become increasingly important to our modern life. These information and communications technologies, or ICT, are the foundation that enable applications on our smartphones, that provide information security, that allow our mobile devices to connect wirelessly to the cloud. In the future, this trend is clearly increasing as ""smart technologies"" combine to form the Internet of Things. In addition, ICT investment has a close relationship to corporate performance, and has become a key driver of national growth strategy. The Next-generation Digital Infrastructure Research Area performs research and graduate education on the fundamentals of ICT systems, to make wide-ranging contributions to industry, standardization activities and governmental policy making.

## ■ Keywords:

Cryptography, Cyber Security, Network Security, Computer Networks, IoT, Embedded Systems, Wireless Communications, Software, High Performance Computer Systems

## ■ Education policy:

In this area, we are conducting education and research in fields that are the basis of information engineering, such as computer hardware and software, networks and security, and cultivate students who acquire solid theories, technologies and methodologies that are not influenced by trends. Research in this area requires a wide range of knowledge, fundamental theories and technologies whose necessity has been recognized over time, and are also necessary for developing new ICT systems in the future. We are also focusing on exercises, Project Based Learning and so on, with the goal of developing the practical skills of students.



VLSIs and embedded systems, computer networks, cloud servers, smart houses

## Next-generation Digital Infrastructure

Professor	<b>AOKI Toshiaki</b>	Realize Safety and Security by Advanced Science and Technology
Professor	<b>INOUCHI Yasushi</b>	Research about basic technology of next generation supercomputers
Professor	<b>KANEKO Mineo</b>	Advanced ICT-Society is supported by reliable, high-performance LSIs
Professor	<b>SHINODA Yoichi</b>	
Professor	<b>TAN Yasuo</b>	Advancing Research on ICT support systems in the home
Professor	<b>TANAKA Kiyofumi</b>	Let's build high-performance computers
Associate Professor	<b>ISHII Daisuke</b>	Embedding Trustworthy Software into the Real World
Associate Professor	<b>LIM Yuto</b>	For Forthcoming Research on Wireless, Sensor and Energy
Associate Professor	<b>SUZUKI Masato</b>	We support large and complex software development with architecture and visualization technologies.
Senior Lecturer	<b>TOMITA Takashi</b>	Towards Realization of Highly Safe and Reliable Systems