Three Dimensional Modeling & Noise Simulation Lab
Three-dimensional SI/PI/EMI simulation technology and design optimization for automotive electronics  H. Asai

Imaging Devices Lab
Image sensor research and development for ultra-high time, spatial and amplitude resolutions S. Kawahito
Image sensors for high sensitivity and high energy physics N. Teranishi
Ultra-high-speed, ultra-high-sensitivity, and functional multi-aperture camera K. Kagawa
Time-of-Flight CMOS image sensors with sub-mm range resolution K. Yasutomi

Vision Integration Lab
Vacuum nanoelectronics for sensing and imaging H. Mimura
Study of potassium ion electret and its application to MEMS devices G. Hashiguchi
Advanced radiation imaging and its application T. Aoki
Plasmonics for sensing and imaging Y. Neo
Spin state control in semiconductor nano-structure T. Ito
Signal processing and material development for radiation sensors T. Masuzawa
Vacuum nanoelectronics for imaging devices and aerospace applications J. Moon

Nanomaterials Integration Lab
Chemical processing of ceramic thin films and nanoparticles H. Suzuki
Preparation of functional ceramic thin films via vapor phase processing N. Wakiya
Nano-structure analysis of thin films by TEM and AFM N. Sakamoto

Material Science Lab
Crystal growth of energy-related high quality materials Y. Hayakawa
Fabrication of novel nitride-based light-emitting materials and their application for DUV light sources K. Hara

Biomembrane Dynamics Imaging Lab
Investigation on functions and dynamics of biomembranes using the single GUV method M. Yamazaki
Physiological significance of lipids in photosynthetic organisms K. Awai
Single crystalization of lipidic cubic phase and its application to phase transition study T. Oka

Advanced Device Research Division

Nanosystem Integration Lab
Research on integrated nanodevices for circuits and systems H. Inokawa
Development of super resolution imaging device by surface plasmon resonance A. Ono
Study on label-free biosensing using SOI integrated circuits with surface plasmon antenna H. Satoh

Nanodevice Lab
Research on energy conversion between charge/spin and lattice on nano- and atomic scales Y. Ono
Fabrication of micro- and nano-photonic structures by femtosecond laser lithography V. Mizeikis
High-sensitivity infrared photodetector and high-efficiency thermoelectric power generator using silicon nanowires H. Ikeda
Tunneling Silicon nano-transistors using dopant atoms D. Moraru
Control of charges and spins using localized states in silicon transistors M. Hori

Optical Science Lab
High resolution optical imaging with electron beam excitation for biological applications Y. Kawata
Development of microscope techniques for micro and nano meter scale manipulation of biological samples F. Iwata
Optical microscopy beyond the diffraction limit W. Inami
Three dimensional in-process measurement and geometric modeling for the nano-micro manufacturing industry S. Usuki

Biomedical Photonics Research Division

Biomedical Sensing Systems Lab
Development of terahertz laser spectrometer and its application to detect molecular defects T. Sasaki
Non-invasive hemodynamic measurement system using visible and near-infrared spectroscopy M. Niwayama
International Collaboration

Academy of Science of Moldova
Albert Ludwigs University
Budapest University of Technology and Economics
Carleton University
Chernivtsi Yury Fedkovych National University
Greek Atomic Energy Commission
Institute for Single Crystals of National Academy of Sciences of Ukraine
Institute of Nuclear Physics
Institute of Nuclear and Particle Physics
Jožef Stefan Institute
Kaunas University of Technology
National Center for Radiobiology and Radiation Protection
National Taras Shevchenko University of Kiev
National Technical University of Ukraine
Obuda University
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Karunya University
King Mongkut’s University of Technology
Nanyang Technological University
National University of Singapore
Peelamedu SamaNaidu Govindasamy College of Technology
Sivanthi Aditanar College of Engineering
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Vellore Institute of Technology

Electronics is a fundamental study of all the industrial and scientific technologies. Research Institute of Electronics (RIE) originated from Prof. Kenjiro Takayanagi’s television laboratory at the former Hamamatsu Technical College at the end of the Taisho era. RIE was founded in 1965 as an institute attached to Shizuoka University, aiming to carry out researches related to electronics. Now RIE has four research divisions; Nanovision Research Division, Advanced Device Research Division, Nanomaterials Research Division and Biomedical Photonics Research Division. RIE intensively studies photonics and electronics to pioneer novel imaging science, and educates undergraduate students and graduate students in master and doctoral courses. RIE was designated as a “Joint Usage/ Research Center” by MEXT in 2013. RIE also plays main roles at Shizuoka University for the both projects of “International Research Center for Photonics” and “Center of Innovation (COI)”, which are jointly proposed by Hamamatsu Photonics Co. Ltd., Hamamatsu University School of Medicine, The Graduate School for the Creation of New Photonics Industries and Shizuoka University. In addition, The Research Center of Biomedical Engineering (RCBE) was established in April 2016 in collaboration with the Institute of Biomaterials and Bioengineering at Tokyo Medical and Dental University, the Laboratory for Future Interdisciplinary Research of Science and Technology at Tokyo Institute of Technology, the Research Institute of Nanodevice and Bio Systems at Hiroshima University, and RIE. We have gained a position as an international research center by creating novel imaging science based on nanotechnology.

Research Institute of Electronics, Shizuoka University
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• JR Hamamatsu Station (Shinkansen, JR Tokaido Line)
• Taxi: 10 min., about 1,000 Yen
• Bus: North Exit Bus Station, No.15 & 16, about 15 min.

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Research Institute of Electronics
Create the Future by Ultimate Imaging Technology
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