TOKYO TECH RESEARCH MAP 2023-2024

Development of novel catalysts for low-temperature ammonia synthesis
Masaaki Kitano
Institute of Innovative Research

Chemical approach to artificial photosynthesis
Kazuhiko Maeda
School of Science

Environmentally benign heterogeneous catalysts
Michikazu Hara
Institute of Innovative Research

Computational chemistry. Materials for renewable energy. Machine learning
Sergei Manzhos
School of Materials and Chemical Technology

Fabrication methods of metallic materials & the evaluation method for next generation medical devices
Masato Sone
Institute of Innovative Research

Design and development of water electrolysis and fuel cell materials and systems
Takeo Yamaguchi
Institute of Innovative Research

Elaboration of nanospace materials: enabler for innovative resources recycling
Toshiyuki Yokoi
Institute of Innovative Research

Creation of novel functional materials from a unique perspective
Hideo Hosono
MDX Research Center for Element Strategy

Synthesis and function of supramolecular capsules
Lorenzo Catti
Institute of Innovative Research

Making all solid-state batteries universally available
Ryoji Kanno
Institute of Innovative Research

World's fastest millimeter-wave transceiver
Kenichi Okada
School of Engineering

Establishing highly-efficient AI computing through SW-HW co-creation
Masato Motomura
Institute of Innovative Research

Systems control incorporating advances in information and communication
Hideaki Ishii
School of Computing

Exploiting big data to model socio- and econophysics
Misako Takayasu
School of Computing

Diamond quantumsensors for healthcare and environmental energy fields
Mutsuko Hatano
School of Engineering

Biomedical artificial intelligence that learns images efficiently
Kenji Suzuki
Institute of Innovative Research

Understanding the gene expression mechanism in living cells
Hiroshi Kimura
Institute of Innovative Research

Elucidating the molecular mechanisms of autophagy, an intracellular degradation system
Yoshinori Ohsumi
Institute of Innovative Research

Design of small molecules that regulate biological functions and drug development
Hiroyuki Nakamura
Institute of Innovative Research

Diffrentiation of iPS cells to digestive organs and application to drug discovery
Shoen Kume
School of Life Science and Technology

Polymer design for future diagnostic and therapeutic medicine
Nobuhiro Nishiyama
Institute of Innovative Research

Exosome in disease etiology and detection
Ayuko Hoshino
School of Life Science and Technology

Chemistry, Materials 241

Electrical and Electronic Engineering, Computer Science 197

184 Mechanical Engineering, Civil Engineering, Architecture

105 Mathematics, Physics, Earth and Planetary Sciences

172 Transdisciplinary Science and Engineering, Humanities and Social Science

Life Science and Technology 138

Preparation and industrial application of functional carbon materials
Naoto Ohtake
Institute of Innovative Research

Soft robots that exploit artificial muscles
Koichi Suzumori
School of Engineering

Computer vision, computational, imaging, 3D scene recognition/ understanding
Masatoshi Okutomi
School of Engineering

Functional-continuity buildings and cities that withstand earthquakes
Shoichi Kishiki
Institute of Innovative Research

Contributing to water security in a changing world
Shinjiro Kanae
School of Environment and Society

Qantum sensor technologies for ultra-precise inertial navigation
Mikio Kozuma
Institute of Innovative Research

Researching for life beyond Earth
Yasuhito Sekine
Earth-Life Science Institute

Nanophotonics enabling novel information processing
Masaya Notomi
School of Science

Analyze human motion and support human performance using biomechanics
Takeo Maruyama
Institute for Liberal Arts

Religion and nationalism
Takeshi Nakajima
Institute for Liberal Arts

Analysis, design and implementation of ecosystem
Masaharu Tsujimoto
School of Environment and Society

Building intelligent machines
Ryutaro Ichise
School of Engineering

Application of information and communication technology for international development
Jun-ichi Takada
School of Environment and Society