

IEEE Sensors Journal Editorial Keywords

SYST Sensor system integration

- multiple-sensor systems
- smart sensor systems
- sensor arrays
- combined sensors (such as electrical & mechanical, etc.)
- packaging and interconnections

NETW Sensor system networks

- sensor buses and communications
- networked sensor fusion and decisions
- sensor telemetry and monitoring

PHEN Sensor phenomenology

- sensor testing and evaluation
- noise, interference effects, cross-talk
- aging, reliability, stability (against ambient interference)

MODL Sensor modelling

- sensor model analysis
- sensor model analysis verification

SIEL Sensor interface electronics

- sensor electronic circuits, sensor readout circuits
- sensor electronic signal conditioning, sensor electronic signal conversion, sensor signal digitization
- sensor electronic signal processing for high precision and stability (amplification, filtering, linearization, modulation/demodulation)
- sensor electronic signal processing under harsh conditions (EMC, radiation, humidity, temperature); energy consumption/harvesting

DATP Sensor data processing

- soft computing with sensor data (such as pattern recognition, machine learning, evolutionary computation)
- sensor data fusion
- processing of wave (EM, acoustic, etc.) sensor data
- processing of non-wave (chemical, gravity, particle, thermal, radiative and non-radiative, etc.) sensor data
- detection, estimation and classification based on sensor data

INTS Intelligent Sensors

- machine learning driven sensor applications
- machine learning techniques for sensors, sensor data processing and fusion
- computing architectures (such as deep learning, evolutionary computing, in/near-memory and neuromorphic computing) for sensor systems
- machine learning hardware architectures for sensors and sensor system optimization
- sensor datasets and training/validation methodologies for machine learning

MECH Mechanical sensors

- strain gauges: metallic, thin-film, thick film and bulk strain gauges
- pressure sensors
- accelerometers, gyroscopes, angular rate sensors, displacement transducers, force sensors
- bulk and surface acoustic wave sensors, ultrasonic sensors
- flow sensors
- microelectromechanical (MEMS) sensors

MASS Mass-sensitive sensors

- quartz crystal microbalance
- surface acoustic wave sensors
- mass-sensitive gas sensors
- resonators/oscillators for sensors

THER Thermal sensors

- platinum resistors, thermistors, diode and transistor temperature sensors
 - thermocouples, thermopiles
- pyroelectric and piezoelectric thermometers
- calorimeters, bolometers

MAGN Magnetic sensors

- magnetoresistors, magnetometers
- Hall-effect devices, magnetic-field sensors
- solid-state read and write heads

OPTO Optoelectronic/photonic sensors

- light-emitting diodes, diode lasers, other quantum sources for sensing
- photoconductors, photodiodes, phototransistors
- position-sensitive photodetectors, photodiode arrays, charge-coupled devices
 - radar sensors
- imaging sensors
- sensors using photometry, fluorimetry, interferometry, ellipsometry, surface plasmon resonance

MICR THz/Microwave/Millimeter wave sensors

IONI Ionizing radiation sensors (such as gamma ray, X-ray, charged particle and neutron detectors)

FIBR Fiber-optic sensors

- optical fibers for sensing
- fibre-Bragg grating sensors

INTO Integrated optics sensors**APPL Sensor applications**

- automotive, medical, environmental monitoring and control,
- consumer, alarm and security, military, nautical, aeronautical and space sensor systems, robotics and automation
- applications of intelligent sensors (such as on-line monitoring, process control, test kits, RFID and other identification)
- internet based and other remote data acquisition and control of sensors

ACTU Sensor-Actuators

- integrated sensor-actuators
- smart sensor-actuators
- networkable sensors-actuators

CHEM Chemical and biological sensors

- electronics and physics of transduction for chemical and biological signals
- olfactory sensors ("electronic nose")
- microfluidic devices and lab-on-chip devices

MATR Sensor materials and solid-state sensors

- thin-film and thick-film gas sensors,
- humidity sensors
- sensors for specific ions (such as pH sensors), radon , carbon monoxide
- viscosity sensors , density sensors
- acoustic velocity sensors , proximity sensors
- altimeters, barometers

Updated May 2024