

Austrian Working Group on Sensors (ARGE Sensorik) - Research Profiles

Institute/Working Group	Sensor Devices	Sensor Systems/Measurement Technology	Gas Sensors	Liquid Sensors	Chemical and Biochemical Sensors	Sensors for physical parameters	Inertial Sensors	Position, Level, Angle Sensors	Capacitive Sensors	Magnetic Sensors	Ultrasonic Sensors	Microfluidics	Microsystems, MEMS	Optical Sensors (incl. IR)	Actuators	Wireless Technology for Sensors	Readout Electronics (discrete or ASIC)	Sensor Technology (Fabrication, Processes for Microsystems Technology, Clean Room Facilities, ...)	Application Keywords, current activities
Carinthian Tech Research, Kompetenzzentrum, Villach	X	X			X	X							X	X		X	X		Surface Acoustic Wave (SAW) Sensors (T, p, strain, ...) & RFID; Spectral Imaging (industrial, life sciences, ...); Process Control; Optical MEMS system solutions; MEMS IR-spectrometers; Sensor Device Simulation
Forschungsstelle Integrierte Sensorensysteme, ÖAW	X	X		X		X	X	X	X	X			X	X	X		X		Thermal parameters of thin films and fluids, Viscosity, Air-flow, MEMS acoustic vibration sensor, Capacitive sensors, Capacitive readout, IR Bolometer, Device simulations,
Institut für Analytische Chemie, Uni Wien			X	X	X				X			X		X		X			VOCs, PAHs, hazardous compounds, work-place and environmental monitoring, degradation monitoring (composting, edible and automotive oils), proteins, viruses (e.g. FMD, HRV, TMV, POX), cells (fermenting control), blood typing - preferably with acoustic label-free strategies (e.g. QCM, SAW)
Institut für Allgemeine Physik, TU Wien	X	X	X	X	X	X			X		X			X			X		Sensors/Monitors for Viscosity/Density, Humidity, Speed of sound and Temperature (QxSens), Resonant Sensors, On/In-line IR-Sensors
Institut für Chemische Prozeßentwicklung und -kontrolle, Joanneum Graz	X	X	X	X	X							X		X			X		Opto-chemical sensors for O ₂ , CO ₂ , pH, in gases and liquids; Determination of permeability of O ₂ and humidity through polymer membranes for packaging materials and encapsulation materials; Development of sensors for determination of toxic substances for safety applications; Development of optical and electronic interrogation units for OEM and serial production
Institut für Elektrische Mess- und Schaltungstechnik, TU Wien	X	X						X			X					X	X		Ultrasonic Sensing of Object Position, Orientation, and Type in Air. Safety-related Multisensor-System for Inspection of passing Trains
Institut für Elektrische Messtechnik und Messsignalverarbeitung, TU Graz	X	X	X	X		X		X	X	X	X			X		X	X		Automotive Sensors, Capacitance Tomography, Flow Rate Sensors, Condition Monitoring, Optical and Vision Based Sensing, Sensor Electronics, Capacitive Sensors, Inverse Problems, RFID & Sensors
Institut für Experimentalphysik, Abt. f. Physik d. weich. Materie, JKU Linz	X	X	X			X				X	X				X				sensors for flexible electronics, unusual piezoelectric materials (ferroelectrets), infrared sensors, gas sensors
Institut für Mikroelektronik und Mikrosensorik, JKU Linz	X	X		X		X					X	X	X	X	X	X	X	X	Condition Monitoring of Liquids, Monitoring Complex Liquids, Viscosity/Density Sensors, Resonant Sensors, Microfluidic Actuators, Integrated IR-Sensors
Institut für Physikalische Chemie, Uni Wien				X	X							X		X					Condition Monitoring of Solid/Liquid Interfaces, bioelectrochemistry of biosensors, optical nearfield diagnostics, 3D-Laser-Structuring of Microfluidics, multiphoton fluorescence sensors
Institut für Sensor- und Aktuatorssysteme, TU Wien	X	X		X	X	X			X	X	X	X	X	X	X		X	X	Physical chemosensors, Biochips, MEMS sensors, Microfluidics, Sensor technology
Integrated Microsystems Austria, Kompetenzzentrum Mikrosystemtechnik, Wiener Neustadt	X	X				X		X				X	X	X	X				Microsystems (also in non-Si technology), integration of MST in industrial applications, fiber optical sensors, sensors for industrial automation and measurement systems.
LCM, Kompetenzzentrum für Mechatronik, Linz			X				X	X			X					X	X		Kontakt- und drahtlose Sensorik und Kommunikation, Optische und thermische Sensorik, Radar, Wirbelstromtechnik, Materialprüfung, Digitale Signal und Bildverarbeitung
Nano-Systemtechnologien, ARC, Wien	X	X	X		X		X			X		X	X	X				X	Magnetoresistive Sensors (GMR, TMR), Resistive Gas Sensors, Integrated Optical Sensors, Lab-on-a-Chip, IR-Bolometer, Technology: Thin Film Sputtering, Nanowires, Lithography
Upper Austrian Research GmbH, Linz		X	X	X	X	X					X			X					Process Control, On/In-line NIR/IR systems, NIR/IR Application Development, Chemometrics, Laser Ultrasound, Photoacoustics