Preliminary Programme - EUROSENSORS XXXVI
1-4 September, Debrecen, Hungary

Sunday, 1 September

EUROSENSORS SCHOOL *(ÉTK / Life Science Bldg)*						
9:00	**SB1**	Prószéky	Gábor	Hungarian Research Centre for Linguistics Pázmány Péter Catholic University Co-founder of MorphoLogic	Artificial Intelligence and Human Language Technologies Today	
10:30	**Coffee break**					
11:00	**SB2**	Horváth	András	Pázmány Péter Catholic University	Robust Sensing and Super-Resolution with Employment Neural Networks	
12:30	**Lunch break**					
13:30	**SB3**	Puglisi	Donatella	Division of Sensor and Actuator Systems Department of Physics, Chemistry and Biology Linköping University, Sweden	Utilization of AI/machine-learning in gas sensing and environmental applications	**REGISTRATION** **14:00-18:00** *(ÉTK / Life Science Bldg)*
15:00	**Coffee break**					
15:30-17:00	**SB4**	Zámborszky Podder Grimm	Judit Itilekha Dániel	Big Data and Artificial Intelligence Bosch	ML/AI in MEMS sensor development and production	
18:45-21:30	**Welcome reception** *(Nagyerdei Water Tower)* **Sponsored by 77 Elektronika**					

Date last modified: 26 July, 2024

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Monday, 2 September

	T5 - Chemical Sensors (Main Bldg, Assembly Hall)					T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip (ÉTK / Life Science Bldg, Room 1)					T4 - Physical Sensors and Actuators (ÉTK / Life Science Bldg, Room 2)					T1 - Theory, Modelling, Design and Testing (ÉTK / Life Science Bldg, Room 3)				
9:00	**Opening remarks**																			
9:30	PleA1	-	Detre	Örs Hunor	Sensing over space and time															
10:20	T5A1	8	Mizsei	János	The Pitfalls of Researching and Developing Semiconductor Gas Sensors	T6B1	229	Brachfeld	Ambre	Electrochemical assay for metal traces in marine environment by the Peaks Shift Analysis during catalysis	T4C1	62	Murase	Hideaki	Development of a 0.01-dph mode-matched MEMS gyroscope toward realizing a module-level gyrocompass with 1-mil accuracy	T1D1	5	Salman	Eliya	The Optimal Planform of a Cantilever Unimorph Piezoelectric Vibrating Energy Harvester (PVEH), which has a Device-Layer Edge Block
10:40	T5A2	251	Khan	Madiha	CuO-loaded NiO based gas sensor with dual selectivity to NO2 and H2.	T6B2	195	Clement	Pierrick	Aptamer-based Electrochemical Sensor for the Monitoring of Carbamazepine in Freshwater Systems	T4C2	138	Garcia	Inês Sofia	Exploring multi-mass system for multi-functional MEMS accelerometer with enhanced bandwidth and sensitivity	T1D2	173	Schiller	Ferdinand	High-Fidelity Modeling of Harmonic Distortions in Piezoelectric MEMS Microphones with a Corrugated Membrane
11:00	T5A3	201	Santiago	Marco	Odour Classification and Concentration Estimation with a Chemical Sensor Array on a Drone	T6B3	236	Martinez-Estrada	Marc	A Textile Electrochemical Sensor based on Ag Coated Fibers	T4C3	23	Becker	Dennis	A New Area Efficient Folded Piezoelectric MEMS Speaker	T1D3	216	Raschdorf	Paul F.	Automatic Imaging Based Wafer-Level In-Line Measurement for Piezoelectric MEMS Mirrors
11:20	**Coffee break** *(ÉTK / Life Science Bldg)*																			

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11:50	T5A4	40	Liu	Kewei	Aliovalent-Doping-Strengthened Ethylene Sensor	T6B4	79	Guerreiro Rodrigues	Rodolfo	Development and Characterization of Microfluidic Channels for Chromatography-on-a-Chip Applications	T4C4	86	El-Ahmar	Semir	Hall-effect sensors for extreme temperature applications	T1D4	36	Mollard	Laurent	KNN Lead-free biaxial piezoelectric MEMS Mirror on 200 mm Si wafer
12:10	T5A5	44	Duc	Caroline	Alternative solvents containing phenyls and isoprenic units to fabricate polyaniline-based layers sensitive to ammonia	T6B5	217	Szomor	Zsombor	3D Modelling of droplet formation in two-phase microfluidics for single-cell manipulation	T4C5	90	Reddig	Wiktoria	Neutron Radiation Effects on Thin-Film and Two-Dimensional Magnetic Field Sensors	T1D5	135	Özin	Mithat C	Design Study of a Y-shaped Six-Axis Force/Moment Sensor Through Pareto Front and Novel Analytical Model
12:30	T5A6	189	Schönauer-Kamin	Daniela	Are Powder Aerosol-Deposited Films Appropriate for Chemiresistive NOx Gas Dosimeters?	T6B6	15	Rosa	Rafaela R	Microfluidic Rolling Circle Amplification Device for Pathogen Detection in Food Products	T4C6	197	Marbouh	Othmane	Metrology of magnetic losses in electrical steel sheets using shear acoustic waveguide magnetic field sensor	T1D6	20	Becker	Dennis	Acoustic Transmission Measurements of Folded MEMS Membranes for Mechanical Characterization
12:50	**Lunch break** *(Main Bldg, Díszdvar)*																			

	T5 - Chemical Sensors (Main Bldg, Assembly Hall)					T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip (ÉTK / Life Science Bldg, Room 1)					T4 - Physical Sensors and Actuators (ÉTK / Life Science Bldg, Room 2)					T1 - Theory, Modelling, Design and Testing (ÉTK / Life Science Bldg, Room 3)				
14:20	PleA2	-	Domènech-Gil	Guillem	AI sniffs out a solution to gas sensor selectivity afflictions?															
15:10	T5A7	107	Teulle	Alexandre	Silicon-Based Thermal Conductivity Detector for Gas Sensing	T6B7	89	Hintz	Nicole	Fabrication of Nanochannels with Funnel-like Inlet Structures for the Analysis of Single DNA Molecules	T4C7	235	Wang	Junbo	A High-Performance Mode-Localized Vacuum Gauge Based on T-Typed Piezoresistive Pickup	T1D7	175	Jafarsadeghipournaki	Ilgar	Design of a MEMS Pitch Tunable Grating for Enhanced Scanning LiDAR
15:30	T5A8	202	Brieger	Oliver	Characterization of a thick film MOS gas sensor as detector of short trace gas pulses	T6B8	248	Janisz	Tymon	3D-Printed Mouthguard with Integrated Microfluidic Drug Dispenser for Oral Cavity Applications	T4C8	42	Le Bihan	France	Creep Detection in Composites with Silicon Strain Gauge	T1D8	281	Tischer	Ana Maria	Preliminary Comparative Study of Different Materials to Reduce Humidity of Gas Samples
15:50	T5A9	147	González Gómez	María	Cost-effective Indoor Colorimetry CO2 sensor.	T6B9	196	Lefèvre	Xavier	MIP-based sensors for fast nicotine monitoring in aerosol	T4C9	169	Lukács	Ferenc	A Novel Barometric Pressure Sensor with a Capacitive Transducer and with Improved Mechanical Robustness in a Media Robust Packaging	T1D9	159	Mógor-Győrffy	Róbert	Non-Destructive Evaluation of Crack Propagation in Solder Joints of Pressure Sensors Under Thermal Cycling Using Computed Tomography and Finite Element Analysis
16:10	**Coffee break** *(Main Bldg, Ceremonial Hall)*																			
16:30-18:15	**Poster session** *(Main Bldg, 3rd floor)*																			
19:00-20:30	**Organ concert** *(Great Reformed Church in Debrecen)*																			

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Tuesday, 3 September

	T5 - Chemical Sensors (Main Bldg, Assembly Hall)					T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip (ÉTK / Life Science Bldg, Room 1)					T4 - Physical Sensors and Actuators (ÉTK / Life Science Bldg, Room 2)					T5 - Chemical Sensors (ÉTK / Life Science Bldg, Room 3)				
9:00	Pie3	-	O'Mahony	Conor	Precision Healthcare using Micro Transdermal Interface Platforms (MicroTIPs)															
9:50	T5A10	99	Moos	Ralf	Ammonia Sensor to Effectively Dose the Reducing Agent for NOx SCR Systems in Biomass Combustion Systems	T6B10	85	Izaddoust	Sepideh	Plant on a Chip: Paper Fluidics for Spatio-Temporal Root Exudate Analysis	T4C10	209	Volk	János	Ultra-Sensitive Force Gauge Accessory for Microscope Micromanipulators	T5D29	273	Jurdit	Murielle	Investigating the Variation of Thermal Conductivity with Temperature to Improve a Portable GC System Specificity
10:10	T5A11	119	Ratti	Christian	Environmental Odour Monitoring at Receptors by means of an IOMS: Assessment of the Odour of a Paper Mill	T6B11	97	Antonelli	Gianni	Electroporation Monitoring by Machine Learning and Single Cell Morphodynamic on Lab-on-Chip	T4C11	215	Sayar irani	Farid	Scalable Microfabrication of Graphene Polymeric Strain Gauge	T5D30	187	Moussa	Mohand Salah	Development of a Photoacoustic Cell for Volatile Organic Compounds (VOCs) Detection
10:30	T5A12	190	Masi	Luigi	Monitoring of VOC Emissions in Berries During the Spoiling Process	T6B12	160	Bató	Lilia	Microfluidic device with integrated microelectrodes for enhanced EIS sensitivity	T4C12	78	Pernau	Hans-Fridtjof	Detection of SF6 in soundproof windows	T5D31	156	Köck	Anton	Novel chemical sensor device enabled by simultaneous thermal-optical excitation
10:50	T5A13	71	Spagnoli	Elena	Chemoresistive Sensors: A New Approach to Understand the Detection Mechanism of Biogenic Gases	T6B13	214	Alhasan	Seba nur	Micromachined SU-8/PMMA Sandwich Electrodes with Functional Graphene Coatings for Biopotential Monitoring	T4C13	72	Kwon	MinHee	Design Considerations for GHz SAW Resonators in High Strain Sensing	T5D32	10	Fabrega Gallego	Cristian	Colorimetric Inks: A new approach to low cost and disposable gas sensors
11:10	**Coffee break** *(ÉTK / Life Science Bldg)*																			
	T5 - Chemical Sensors *(Main Bldg, Assembly Hall)*					**T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip** *(ÉTK / Life Science Bldg, Room 1)*					**T7 - Photonics and Optical Microsystems** *(ÉTK / Life Science Bldg, Room 2)*					**T2 - Smart Systems and Artificial Intelligence in Sensing** *(ÉTK / Life Science Bldg, Room 3)*				
11:40	T5A14	67	Paolucci	Valentina	Chemoresistive Humidity, NO2 and H2 Sensor Based on 2D- CrCl3 Layered Trihalides Nanoflakes	T6B14	228	Füredi	András	Simple Microfluidic System for Point-of-Care Therapeutic Drug Monitoring of Anticancer Drugs	T7C1	37	van Klinken	Anne	Optical Sensing with Picometer-level Precision using an Integrated Multispectral Chip	T2D1	**25**	Mizsei	János	Should we be afraid of artificial intelligence integrated with sensors and actuators, and if so, why not?
12:00	T5A15	163	Fdhila	Aladine	Facile synthesis of SnS2 nanosheets via the combination of AACVD and APCVD methods for ppb-level NO2 detection.	T6B15	111	Oliveira	Léony S	Development of an ISFET-based system for genetic detection of leukemia oncogene	T7C2	43	van Elst	Don M.J.	Tailoring Spectral Sensors for Specific Applications	T2D2	**30**	Sanchez-Rojas	Jose L	Deep Learning-Enhanced Density and Viscosity Sensing with Piezoelectric MEMS Resonators for Edible Oil Monitoring
12:20	T5A16	154	Maier	Christian	Gas Sensing Performance of CuO Sensors Functionalized with Different Stabilized Au-NP	T6B16	231	Lieberzeit	Peter A	Towards Mass-Sensitive Assay Formats for Medical Drugs Using MIP Nanobodies	T7C4	31	Arthur L.	Hendriks	A Nanophotonic Fiber-Tip Sensor for the Detection of Single Nanoparticles	T2D3	**46**	Zhang	Shen	Recognition Accuracy and Data Quality Indices for EMG and pFMG Signals: A Correlation Analysis
12:40	T5A17	53	Rajab Pacha	Salma	Conductimetric Gas Sensors for Hydrogen Leakage Detection Based on Copper Phthalocyanine Decorated by Palladium Nanoparticles	T6B17	137	Shtepliuk	Ivan	Insights into Graphene-Based Sensors for VOC biomarkers of lung cancer: A DFT Perspective						T2D4	**93**	Mulloni	Viviana	Multiparameter chipless RFID sensor tag for humidity and NO2 determination
13:00	**Lunch break** *(Main Bldg, Ceremonial Hall)*																			
	Round Table Discussion 1 *(Main Bldg, Assembly Hall)*					**T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip** *(ÉTK / Life Science Bldg, Room 1)*					**T5 - Chemical Sensors** *(ÉTK / Life Science Bldg, Room 2)*					**Round Table Discussion 2** *(ÉTK / Life Science Bldg, Room 3)*				
14:30	Round Table 1					T6B26	**80**	Yamamoto	Michitaka	Molecular weight measurement of cattle-emitted gases using whistle acoustic signals	T5A18	256	Di Zazzo	Lorena	Conductometric sensor array based on electropolymerized porphyrinoids	Round Table 2				
14:50						T6B27	**266**	Biswas	Subhajit	Electrochemically Exfoliated 2D MoS2 for ppb-level NO2 Sensing	T5A19	75	López Aparicio	Yohana	Advanced Room Temperature Hydrogen Sensor based on Interdigitated Electrodes and Polycarbazole Membranes					
15:10						T6B28	**265**	Papkovsky	Dmitri	Photoluminescence Lifetime Based pH and O2 Sensors for the Analysis of Cell Metabolism	T5A20	118	Aina	Oluwatoyin E	Development of 2D-Borophene conductometric sensor for ammonia detection					
15:30	**Coffee break** *(Main Bldg, Ceremonial Hall)*																			
16:00-18:00	**Poster session** *(Main Bldg, 3rd floor)*																			
19:00-22:00	**Conference dinner (Main Bldg, Ceremonial Hall)**																			

Preliminary Programme - EUROSENSORS XXXVI
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Wednesday, 4 September

	T3 - Advanced Materials and Technologies *(Main Bldg, Assembly Hall)*					T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip *(ÉTK / Life Science Bldg, Room 1)*					T5 - Chemical Sensors *(ÉTK / Life Science Bldg, Room 2)*					T10 - System Integration, ... Energy Harvesting *(ÉTK / Life Science Bldg, Room 3)*				
9:00	Ple4		Tsamis	Christos	Exploring the triboelectric phenomena: From energy harvesting and sensing to triboelectric devices															
9:50	T3A1	133	Bernasconi	Roberto	Inkjet Printed Flexible Piezoelectric Sensor for Large Strain Applications	T6B18	246	Fretz	Mark	Industrialized microfluidic cartridges with photonic chips	T5C21	239	Bonyár	Attila	Benchmarking the Gas Sensitivity of LSPR Sensors With a New Parameter	T10D1	125	Curry	Joshua	Harvesting body temperature to power wearable systems using sputtered flexible thermoelectrics
10:10	T3A2	298	Malik	Shuja Bashir	Pd Decorated WS2 Synthesized via Facile APCVD Tech-nique for Highly Selective Room Temperature H2 sensing	T6B19	243	Malafatti	João Otávio Donizette	Potential use of meso-tetra (N-methyl-4-pyridyl) porphyrin to chlorogenic acid fluorescence detection	T5C22	232	Kraiem	Ines	Raman Spectroscopy-based Detection of Suspended Carbon Nanotubes for Integration into Sensors	T10D2	264	Psoma	Sotiria D.	A Hybrid Piezoelectric - Electrostatic Energy Harvester for Wearable Biosensors
10:30	T3A3	11	Ganesh Moorthy	Sujithkumar	New insights in ambipolar sensors through fine tuning in phthalocyanine complexes	T6B20	7	Gupta	Ruchi	Hydrogel-based Sensing Technology for Quantitative Measurements of Low Concentrations of Proteins in the Presence of Interferents	T5C23	180	Escobar	Vanessa	Development and Optimization of SPRI-based Electronic Nose for Highly Selective Detection of Volatile Organic Compounds	T10D3	184	Bankwitz	Madeleine	Advanced Sensor Systems for Sustainable Building Modernization: A Technological Approach to Enhance CO2 Savings
10:50	T3A4	181	Neuber	Markus	Effect of Annealing on Pyroelectric Response and Aging Behavior of Al-doped HfO2 Thin-films	T6B21	165	Garrido García	Eva M.	Nanosensor for GHB detection in urine samples	T5C24	129	Pakarzadeh	Hassan	Designing a Helically Twisted Photonic Crystal Fiber for Gas Sensing in the Terahertz Region	T9C1	253	Lo	Chengyao	Miniaturized Wireless Wearable Force Measurement System for Sports Science and Beyound
11:10	**Coffee break** *(ÉTK / Life Science Bldg)*																			
	T3 - Advanced Materials and Technologies *(Main Bldg, Assembly Hall)*					**T6 - Biochemical sensors, Microfluidics, Lab-on-a-Chip** *(ÉTK / Life Science Bldg, Room 1)*					**T5 - Chemical Sensors** *(ÉTK / Life Science Bldg, Room 2)*										
11:40	T3A5	213	Saikawa	Keita	Microfluidic-Assisted Assembly of Fluorescent Nanodiamonds for Precise Temperature Measurement	T6B22	260	Hinz	Alexander	Characterization of an Integrated Pt Counter Electrode on GaN/AlGaN-ISFET Wheatstone Bridge pH-sensors	T5C25	267	Vardhan	Vaishali	NO2 Sensor on Ambipolar Si-Junctionless Nanowire Transistor					
12:00	T3A6	269	Maini	Lucrezia	In-Vitro Ultrasound Evaluation of an Acoustic Metamaterial Sensor in Presence of Tissue Mimicking Material	T6B23	132	Pushparaj	Kishore	Electropolymerization of porphyrinoids on LIG as EGFET-based sensor array for ascorbic acid detection	T5C26	252	Sacco	Leandro	Printing Nanoporous Layers (NPL) Generated by Spark Ab-lation for Gas Sensing Applications					
12:20	T3A7	245	Lednicky	Tomas	Recent Advances in Lithographic-Free Fabrication and Utilization of Well-Ordered AuNP LSPR Sensors	T6B24	263	Huang	Sheng Hsun	Design and Verification of An Automated Non-contact Di-electric Sensor System	T5C27	73	Capelli	Laura	Continuous Monitoring of Odour Concentration at the Inlet of a Scrubber with an E-Nose: Focus on the Management of Interferences					
12:40	T3A8	157	Soler-Fernández	Juan Luis	A Full-Custom Interface for Ultra-Low Power IoT Sensing Nodes	T6B25	116	Techakasikornpanich	Mongkol	Ion-Sensitive Field Effect Transistor (ISFET)-Based DNA Detection for Enterotoxigenic E. coli (ETEC)	T5C28	81	Rosenwaks	Yossi	CMOS Compatible Electrostatically Formed Silicon Nanowire for Selective Ppb Level Sensing Platform					
13:00	**Closing remarks**																			
13:20	**Lunch break** *(Main Bldg, Ceremonial Hall)*																			