



SENSDETECH 2023

BOLU-TURKIYE OCTOBER

05-07, 2023

1st

INTERNATIONAL CONFERENCE ON SENSOR, DETECTOR, MATERIALS SCIENCE AND TECHNOLOGIES

CONFERENCE PROGRAMME

<http://senstech.ibu.edu.tr/>

HONORARY PRESIDENT OF THE CONGRESS

- Prof. Dr. Mustafa ALIŞARLI (Rector of Bolu Abant İzzet Baysal University, Türkiye)
- Assist. Prof. Dr. Yalçın KALKAN (Director of NÜRDAM, Türkiye)

CHAIRMAN OF CONFERENCE

- Prof. Dr. Cabir TERZİOĞLU, Bolu Abant İzzet Baysal University, Türkiye.

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- Prof. Dr. Gürcan YILDIRIM, Bolu Abant İzzet Baysal University, Türkiye.
- Prof. Dr. Mustafa AKDOĞAN, Bolu Abant İzzet Baysal University, Türkiye.
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- Assist. Prof. Dr. Muhsin Uğur DOĞAN, Bolu Abant İzzet Baysal University, Türkiye.
- Lecturer Ümit ÖZTÜRK, Bolu Abant İzzet Baysal University, Türkiye.
- Sedat ARI (Phd. Student), Bolu Abant İzzet Baysal University, Türkiye.

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- Assist. Prof. Dr. Daniel Gajda, Polish Academy of Science, Poland,
- Dr. Şamil Gürdal, Radkor Ltd, Türkiye,
- Dr. Dr. Georgios Polymeris, National Centre for Scientific Research Demokritos, Greece,
- Dr. Rob Veenhof, CERN, Switzerland,
- Dr. Chiaming Yang, National Cheng-Kung University, Taiwan,
- Dr. André Filipe Cortez, Czech Technical University in Prague, Czech Republic,
- Dr. Mythra Varun Nemallapudi, Academia Sinica Tchajwan, Taiwan,
- Dr. Filip Guemann, Slovak Academy of Sciences, Slovakia,

Official Opening of the SENSDTECH-2023

05 October 2023, Blue Salon – Bolu Abant Izzet Baysal University

Check-in to the conference salon (through the day)

09:00	The Start of Registration Process	
10:00	Official Opening of the SENSDTECH-2023 Welcome by Conference <ul style="list-style-type: none">Prof. Dr. Cabir TERZİOĞLU, Bolu Abant Izzet Baysal University, Türkiye. <i>Chairman of the conference</i>Assist Prof. Dr. Yalçın KALKAN, Bolu Abant Izzet Baysal University, Türkiye. <i>Director of NÜRDAM</i>Prof. Dr. Mustafa ALİŞARLI <i>Rector of Bolu Abant Izzet Baysal University</i>	
11:00-11:45	Invited Speaker: Assoc. Prof. Dr. Atsuhiko Ochi, Department of Physics, Kobe University, “Micro Pixel Chamber and MPGDs, Developments and their applications”	
11:45-12:30	Invited Speaker: Dr. Mihai Irimia-Vladu, Johannes Kepler University, “The avenue to “Green” in Bioelectronics”	
12:30-13:45	Lunch Break	
Session 1	Session Chair	Dr. Mihai Irimia-Vladu
13:45-14:00	İlhan Tapan	A new crystal photodiode combination for environmental radiation measurement
14:00-14:15	Yalçın Kalkan	Clustering Mechanisms and Effects in Gaseous Particle Detectors
14:15-14:30	Şenol Kaya	Monte Carlo Simulation for Electron Sources: Investigating the Impact of Ionizing Irradiation on Different Gate Oxide Dielectrics in NürFETs
14:30-14:45	Sedat Kurnaz	Screen Printed Flexible Capacitive Pressure Sensor
14:45-15:00	Coffee Break	
Session 2	Session Chair	Assoc. Prof. Dr. Atsuhiko Ochi
15:00-15:45	Invited Speaker: Prof. Dr. Ali Gencer, Department of Physics, Ankara University, “On the Quantum World of Superconductors”	
15:45-16:00	Yunus Emre Fırat	Electrochemical energy storage device based on Ag doped MnCoNiO/rGO negative elctrode
16:00-16:15	Şenol Kaya	Effects of Gamma Irradiation on the Structural, Morphological, and Luminescent Properties of Nanophosphors Doped with Nb in TiO ₂
16:15-16:30	Erdem Demirci	Voltage-Driven Modulations of Low-Power Spintronic Sensors in Strain-Mediated Exchange Biased Systems

06 OCTOBER 2023**Blue Salon – Bolu Abant İzzet Baysal University**

Session 3	Session Chair	Doç. Dr. Uğur Soykan
09:00-09:15	Uğur Soykan	Is There Relation Between Free Volume and Mechanical Performance of Fiber-Reinforced Composites
09:15-09:30	Yusuf Sert	Molecular Docking Study of (6,7-difluoro-quinazolin-4-yl)-(1-methyl-2,2-diphenyl-ethyl)-amine
09:30-09:45	Yusuf Sert	A new Corrosion Inhibitor Candidate: 7-methoxy-1,3-benzodioxole-5-carbaldehyde
10:00-10:15	Coffee Break	
Session 4	Session Chair	Prof. Dr. Özgür Öztürk
10:15-11:00	Online Invited Speaker: Dr. André Filipe Cortez, Czech Technical University, “Optical readout TPCs and strategies to improve light detection”	
11:00-11:15	Aya Latif	Structural, Electrical Properties of Zinc Oxide Pure and Doped with Bi Prepared by Sol-Gel Method
11:15-11:30	Selcen Uzun Duran	Neutron And Gamma Radiation Shielding Properties of (HDPE/B ₂ O ₃)/(HDPE/Bi ₂ O ₃) Multi-Layer Composites
11:30-11:45	Egecan Karadöller	METU Defocusing Beamline for Space Radiation Testing and IvmeRad Smart and Active Personal Dosimeter
12:00-13:45	Lunch	
Session 5	Session Chair	Prof. Dr. Ali Çoruh
13:45-14:00	Şeyma Atik Yılmaz	Investigating Dysprosium Effect on Magneto-Transport Properties of Lanthanum Perovskites
14:00-14:15	Nevin Soylu Koç	Evaluation of Structural and Electrical Properties of (Sm,Ce,Sr,)MnO ₃ Oxide Perovskites
14:15-14:30	Mustafa Akdoğan	Rapid and energy efficient fabrication of superconducting iron sheathed MgB ₂ by an alternative annealing method
14.45-15.00	Coffee Break	
Session 6	Session Chair	Prof. Dr. Mustafa Akdoğan
15:00-15.30	Online Invited Speaker: Prof. Dr. Suat Özkorucuklu, İstanbul University, “CMS Forward Region Detector Proposals and Prenminilary Test Beam Activities	
15:30-15:45	Ernat Zhumadil	Investigation of the Difference of Average Electricity Production with Solar Cell in Climatically Diverse Regions of Turkey: The Case of Sakarya and Antalya

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Online Session, [Link for Session](#)

Online Session 1	Session Chair	Assoc. Prof. Dr. Rıfki Terzioğlu
09:00-09:10	Ahmet Sazak	The Geometric Modelling of Mobilities of Cluster Ions Formed in Gas Detectors
09:10-09:20	İlyar Jafari	FFT-Based Viscosity Sensing for a Micropillar-Based Microfluidic Chip
09:20-09:30	Emel Tuğba Ertuğrul	Tailoring MoS ₂ Nanostructures for Enhanced Gas Sensing Performance: A Hydrothermal Approach
09:30-09:40	Süleyman Canoğlu	Examination of Sky Stones Found in Türkiye
09:40-09:50	Turgut Sartaş	The Simulation of Electron Interactions in Semi-Infinite Aluminum Medium with Monte Carlo Method
09:50-10:00	Sanaz Lakastani	Development of Sensor Node Integrated Circuits and Field Applications in Residential Indoor Air Quality Monitoring
10:00-10:15	Elif Somuncu	Theoretical calculation of Bloch-Gruneison function
10:15-10:30	Muhammed Ahangı	The effect of La doping on the structural and electrochemical properties of BaFeO ₃ as a supercapacitor electrode material
Online Session 2	Session Chair	Assoc. Prof. Dr. Fırat Karaboğa
10:45-11:00	Vildan Şanko	New Electrode Design Containing Ni/Fe LDH Nanoparticles for Vanillin Detection by Electrochemical Method
11:00-11:15	Aslı Öztürk Kiraz	The electronic properties of the myricetin Ni ⁺² and Zn ⁺² chelate
11:15-11:30	Sibel Akça Özalp	Variation of thermoluminescence behavior of doped (Nd ³⁺ and Eu ³⁺) yttrium borate phosphor produced by a combustion process
11:30-11:45	Muhammed Öz	Characterization and modelling of p-bromobenzenesulfonyl chloride with HF/6-31+G(d,p) and DFT-B3LYP/6-31+G(d,p) calculation level
11:45-12:00	Erdoğan Öz	Effect Of Transition Metal Co-Doping on Battery Performance in Lithium-Ion Cathode Materials
12:00-12:15	Seda Karaboğa	RuO/TiO ₂ NPs Catalyst for H ₂ generation from Dimethylamine Borane
12:15-12:30	Gökhan Ekinci	Investigation of optical and structural properties of VO ₂ thin films by thermal treatment
Online Session 3	Session Chair	Assoc. Prof. Dr. Şenol Kaya
13:30-13:45	Daniel Gajda	The creation of high-field and high-temperature pinning centers in O ₃ Sm ₂ doped MgB ₂ wires and bulks
13:45-13:55	Muhammed Öz	Change in basic electrical resistivity and superconducting features of Bi-2212 ceramic compounds with dysprosium (III) oxide
13:55-14:10	Abdullah Nabel Salman Al AZZAWI	Evolution of superconducting properties of Bi-2212 ceramic matrix depending on Ag/Sr partial substitution
14:10-14:20	Bahadır Akkurt	Change of main mechanical performance properties with excess Ca-sites in Bi-2212 ceramic system
14:20-14:35	Taha Enes Erdal	Enhancing Industrial Efficiency Through Robotic Automation and Tension Control Systems
14:35-14:45	Yusuf Zaloğlu	Antibacterial Potential of ZnO Nanoparticles Obtained by Extraction of Ganoderma lucidum at Different Concentrations
Online Session 4	Session Chair	Assis. Prof. Dr. M. Uğur Doğan
15:00-15:15	Muhammet Rojhat Kara	Commercial expanded polyethylene foam based low cost capacitive pressure sensor
15:15-15:30	Mahir Gülen	Synthesis of Ni ₃ S ₂ Nanosheet Arrays via Microwave-Assisted and Utilization in High Energy Density Supercapacitors
15:30-15:45	Halim Büyüksulu	Determining the optimum deuteron optical model for elastic and inelastic reactions on ¹⁴ N, ¹⁶ O, ²⁷ Al target nuclei
15:45-16:00	Fırat Karaboğa	Investigation and production of hybrid wires combining superconductive MgB ₂ and ultra-conductive graphene/Cu sheath
16:15-16:30	Zahra Yadi	Performance of perovskite Li _{3-x} La _{1-x} Cu _y Ti _{1-y} O ₃ as solid electrolyte in lithium-ion batteries
16:30-16:45	Selim Aydın	Experimental analysis of betavoltaic performance under a beta radioisotope and mono-energetic electron beam
Online Session 5	Session Chair	Assis. Prof. Dr. Üyesi Mithat Önder
17:00-17:15	Sanam Movazzafgharehbagh	Non-Destructive Testing based Microwave Sensors
17:15-17:30	Sanam Movazzafgharehbagh	Purity detection of some liquids by using transmission line based Metamaterial
17:30-17:45	İbrahim Furkan Özkan	Creation of remote-controlled and autonomous data receiving system for the e-nose including sensors based on metal oxide and carbon nanotubes
17:45-18:00	Yavuz Koç	Design of Voltage Transducer for Dijital Signal Processing Development Kit in Implementation of A High Step-up DC-DC Converter
18:00-18:15	Meryem Kübra Dağ	MIRYA Cosmic Rays Detector; Installation and Features
18:15-18:30	Serdal Aslan	Comparison of flux switched single-sided, double-sided and tube-type linear generators as energy harvesters
18:30-18:45	Recep Taş	Synthesis of NiSe ₂ materials directly on Ni foam using microwave-assisted technique and employing as electrode material in supercapacitors

07 OCTOBER 2023**Blue Salon – Bolu Abant İzzet Baysal University**

Session 7	Session Chair	Assoc. Prof. Dr. Uğur Soykan
08:30-08:45	Muhsin Uğur Doğan	Flight Controller Systems and Sensors Used in Unmanned Aerial Vehicles
08:45-09:00	Ramazan Lök	Fabrication and Characterization of Tungsten Oxide Thin Films by Sol Gel Method
09:00-09:15	Mithat Önder	Sensors and Control Techniques used in IoT based Industry
09:15-09:30	Gülsüm Kocakulah	Morphological and electro-optical characterization of phthalocyanine doped cholesteric liquid crystal composites
09:30-09:45	Coffee Break	
09:45-10:00	Doğan Avcı	The Structural Examination of Fe/(Cu/Nb)/MgB ₂ Multi filament Wires During Cold Forming Processes
10:00-10:15	Sait Barış Güner	Trapped Field and Levitation Performances of YBCO Bulk Superconductors
10:15-10:30	Ali Mercan	Effect of ionizing radiation on mechanical properties of Bi-2223 ceramic system
10:30-11:00	Closing Session	
SOCIAL ACTIVITY (GÖLCÜK LAKE EXCURSION)		