

Tentative Program

4th International Conference on

Biomedical Engineering and Instrumentation

July 08, 2025 | Virtual

Timezone: Eastern Time, USA



Join Zoom Live Stream

To be updated

Meeting ID: 000000

Passcode: 00000

07:45-08:20 Introduction & A/V Check

Plenary Talk

08:20-09:00 **30,000 Patients with Nano Implants and Still Counting: Eliminating Infection and Ensuring Success**
[Thomas J Webster](#), Hebei University of Technology, China and Brown University, USA

Keynote Presentations

09:00-09:30 **Multi-Modality Bedside Tomographic Imaging for Personalised Treatment for Intensive Care Unit**
[Manuchehr Soleimani](#), University of Bath, United Kingdom

09:30-10:00 **Advanced Neurotechnologies for Improving Physical and Cognitive Performance**
[Mahnaz Arvaneh](#), The University of Sheffield, United Kingdom

10:00-10:30 **Use of Vibrational OCT (VOCT) to Image and Measure the Mechanical Properties of Tissues**
[Frederick H. Silver](#), Rutgers Robert Wood Johnson Medical School, USA

10:30-11:30 **Explainable and Reliable AI and Autonomous Adaptive Intelligence: Deep Learning, Adaptive Resonance, and Models of Perception, Emotion, and Action**
[Stephen Grossberg](#), Boston University, USA

11:30-12:00 **Advances in Functional Optical Coherence Tomography: Translation of F-OCT Technology From Bench to Bedside**
[Zhongping Chen](#), University of California, Irvine, USA

Young Research Forum

12:00-12:15 **Studying the Mechanism of Central Nervous System-Oxygen Toxicity (CNS-OT) in Deep Divers and Mitigating its Effects Through a Drug Combination Platform**
[Zia ul Quasim Syed](#), Rutgers University, USA

12:15-12:30 **Immune Cell Biomarker Based Assay for Emergency Department Sepsis Triage**
[Sophia Lowe](#), Rutgers University, USA

12:30-12:45 **Artificial intelligence in Biomedical Devices: Transforming Diagnosis and Treatment**
[Diya Khadgi](#), Maharani Laxmi Bai Medical College, India

Flash Talks

12:45-13:00 **Design and Simulation of a Microfluidic Chamber for Enhanced Microparticle Capture in Immunoassays**
[Pegah Jamali](#), Rutgers University, USA

13:00-13:15 **Nanomembrane-Based Catch-and-Display Immunoassay (CAD-IA) for Point-of-Care Diagnostics of Traumatic Brain Injury**
[Yuxuan \(Savin\) Liu](#), University of Rochester, USA

13:15-13:30 **Cough Sound Analysis and Classification**
[Hatice Kübra Turan](#), Bogazici University, Türkiye

13:30-13:45 **Design of a Fully Mechanical Prosthetic Leg for Above Knee Amputee**
[Fatima al Zahraa al Saabi](#), Al Maaref University, Lebanon

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8105, Rasor Blvd - Suite #112, PLANO, TX 75024

Tel: +1-469-854-2280/81; **Fax:** +1-469-854-2278; **Toll free:** +1-844-395-4102;

Email: bei@uniscigroup.org

Web: <https://bei.unitedscientificgroup.org/>