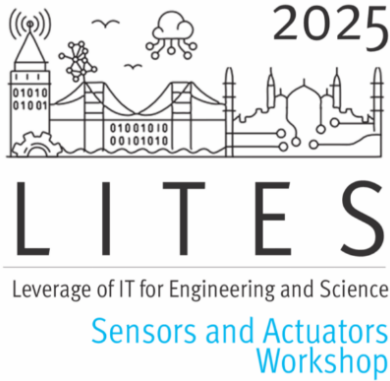




Turkish-German University, Istanbul
Faculty of Engineering & Faculty of Science
Venue: Yamedlab Research Laboratory
October 9-10, 2025

Program of the Event

October 9th | Workshop Day 1

09.30 – 10.00	Registration Welcoming coffee
10.00 – 10.30	Opening Remarks by Local Organizing Committee Ferit Küçükay - Turkish German University Jörg Krüger - TU Berlin / Turkish German University Florian Schweigert - University of Potsdam / Turkish German University Yunus Ziya Arslan - Turkish German University Title: From Signal to System: A Story of Sensing, Acting, and Collaborating
10.30 - 11.00	Keynote Lecture: Oussama Khatib - Stanford University Title: Robotics Avatars: Deep Sea, Health Care, and the Workplace Chair: Yunus Ziya ARSLAN - Turkish German University
11.00-11.15	Discussion
11.15-11.30	Coffee Break
Session 1 11:30 – 13:30 11:30 – 12:00	Mobile Robotics, Perception & Navigation Uncertainty Chair: Oussama Khatib - Stanford University Roland Siegwart – ETH Zurich Title: Field Robotics - Design and Navigation of Robots for Challenging Environments
12:00 – 12:15	Martin Adams – Universidad de Chile Title: Modeling Sensor Uncertainty in Robotic Navigation
12:15 – 12:30	Christoph Uhrhan - Furtwangen University / Turkish German University Title: Design Aspects for Mobile Robot Applications
12:30 – 13:00	Discussion
13:00 – 13:30	Lunch Break
Session 2 13:30 – 15:00 13:30 – 14:00	Advanced Actuation & Sensor-Driven Control Chair: Ali Gökhan YAVUZ - Turkish German University Ulrich Schmid – TU Wien Title: (TBD)
14:00 – 14:15	Michael Engler – Furtwangen University Title: Automatic and Holistic Control of Gear Pumps Using Sensor Data Fusion
14:15 – 14:30	Grzegorz Litak – Lublin University of Technology Title: Vibration Energy Harvesting with a Shape Memory Alloy Spring Element
14:30 - 14:45	Roman Henze - TU Braunschweig Title: Sensors and Actuators as the Key to Autonomous Mobility Solutions
14:45 – 15:15	Discussion
15:15 – 16:00	Poster Session – Coffee Break

Session 3 16:00 – 17:30	Cognitive Robotics & Human-Machine Interaction Chair: Etienne Burdet - <i>Imperial College London</i>
16:00 – 16:30	Gordon Cheng – <i>TU Munich</i> Title: Tactile Intelligence to enhance Human-Robot-Interactions
16:30 – 16:45	Maja Temerinac-Ott – <i>Furtwangen University</i> Title: <i>Learning to Grasp Anything</i>
16:45 – 17:00	Cosimo Della Santina - <i>TU Delft</i> Title: (TBD)
17:00 – 17:30	Discussion
19:00	Workshop Dinner

October 10th | Workshop Day 2

09:00 – 10:00	Morning Coffee
Session 4 10:00 – 11:30	Soft Robotics & Sensor Fusion in Actuation Chair: Gordon Cheng – <i>TU Munich</i>
10:00 – 10:30	Metin Sitti – <i>Koç University</i> Title: Soft Actuators for Small-scale Mobile Robots
10:30 – 10:45	Junhao Ni – <i>TU Dresden</i> Title: Reliable and Low-Cost Stretchable Tactile Switch Sensor Array for Industrial and Robotic Applications
10:45 – 11:00	Christoph Lange – <i>TU Berlin</i> Title: Integrating Raman Spectroscopy into High-Throughput Bioprocess Development
11:00 – 11:30	Discussion
11:30 – 12:00	Coffee Break
Session 5 12:00 – 13:30	Human Augmentation & Assistive Robotics Chair: Metin Sitti – <i>Koç University</i>
12:00 – 12:30	Etienne Burdet - <i>Imperial College London</i> Title: <i>Human Augmentation through Robotics</i>
12:30 – 12:45	Volkan Patoğlu – <i>Sabancı University</i> Title: Actuation Strategies for Exoskeletons
12:45 – 13:00	Jan Babič - <i>Jožef Stefan Institute</i> Title: Feedback Flow and Co-Adaptation in Human–Robot Interaction
13:00 – 13:30	Discussion
13:30 – 14:30	Lunch Break
Session 6 14:30 – 16:00	Industry Session: Demonstration of the State-of-the-Art Sensor and Actuator Systems Chair: Jörg Krüger - <i>TU Berlin</i>
14:30 – 14:45	Hakan Eskiyazici - <i>Yaskawa</i> Title: Welding applications of industrial robots
14:45 – 15:00	Tolga Kutlu & Fikret Kemal Akyüz - <i>Festo</i> Title: (TBD)
15:00 – 15:15	Erdem Alptekin - <i>Siemens</i> Title: Orchestrating the Physical-Digital Nexus
15:15 – 16:00	Discussion
16:00 – 16:30	Poster Session – Coffee Break
Session 7 16:30 – 17:30	Roundtable Meeting: Open Discussion on Future Steps for Cooperation between International Universities and Companies Co-Chair: Jörg Krüger - <i>TU Berlin</i> Co-Chair: Christoph Uhrhan - <i>Furtwangen University / Turkish German University</i>
17:30	Workshop Wrap-up & Closing

List of the invited speakers (in alphabetical order)

From academy

1. Christoph Lange – TU Berlin
2. Cosimo Della Santina - TU Delft
3. Etienne Burdet - Imperial College London
4. Gordon Cheng – TU Munich
5. Grzegorz Litak – Lublin University of Technology
6. Jan Babič - Jožef Stefan Institute
7. Junhao Ni – TU Dresden
8. Maja Temerinac-Ott – Furtwangen University
9. Martin Adams – Universidad de Chile
10. Metin Sitti – Koç University
11. Michael Engler – Furtwangen University
12. Oussama Khatib - Stanford University
13. Roland Siegwart – ETH Zurich
14. Roman Henze - TU Braunschweig
15. Ulrich Schmid – TU Wien
16. Volkan Patoğlu – Sabancı University

From Industry

1. Erdem Alptekin - Siemens
2. Fikret Kemal Akyüz - Festo
3. Hakan Eskiyazici - Yaskawa

Workshop Organizing Committee

Prof. Dr. Ali Gökhan YAVUZ	Turkish-German University
Prof. Dr. Yunus Ziya ARSLAN	Turkish-German University
Prof. Dr. -Ing. Jörg KRÜGER	Technical University of Berlin
Prof. Dr. Florian SCHWEIGERT	University of Potsdam
Prof. Dr. Christoph UHRHAN	Furtwangen University / Turkish German University
Prof. Dr.-Ing. Ulrich NEUHOF	Turkish-German University
Assoc. Prof. Dr. Merja Helena TÖLLE	Turkish-German University
Assist. Prof. Dr. Ali Kazım ÇAMLIBEL	Turkish-German University
Assist. Prof. Dr. Dilek GÖKSEL DURU	Turkish-German University
Dr. Anıl Can DUMAN	Turkish-German University
Halil İbrahim TANRIVERDİ	Turkish-German University
Emine TAPAN	Turkish-German University
Tapati NOBIS	University of Potsdam
Anja STEINBACH	Technical University of Berlin
Ramazan Emre YALÇIN	Technical University of Berlin
Mustafa Anıl SAFRAN	Technical University of Berlin