

EIS 2022 Programme

- Zoom link for all sessions: [REDACTED]
- Zoom Meeting ID: [REDACTED]
- Password: [REDACTED]
- BST = British Summer Time
- CEST = Central European Summer Time
- CST = China Standard Time
- EDT = Eastern Daylight Time

Monday, 20 June 2022 (Day 1)						
Time				Speaker	Affiliation	Title
BST	CEST	CST	EDT			
12:55	13:55	19:55	7:55	Opening Ceremony		
Session – Newton (Chair: Yang Liu)						
13:00	14:00	20:00	8:00	Kevin Chen	MIT	Agile, Robust, and Multifunctional Micro-Aerial-Robots Powered by Soft Artificial Muscles
13:30	14:30	20:30	8:30	Hongda Lu	University of Wollongong	Liquid Metal Smart Feet Capable of Reversible Underwater Adhesion for Crawling Robots
13:45	14:45	20:45	8:45	Junyi Han	University of Sheffield	Thermo-Responsive Shape-Changing Milli-Robot
14:00	15:00	21:00	9:00	Yi-Hsuan Hsiao	MIT	Yaw Control of Insect-Scale Flapping-Wing Robots with Inclined Stroke-Plane
14:15	15:15	21:15	9:15	Shiyang Tang	University of Birmingham	Liquid Metals Enabled Soft Electromechanical Actuators
14:45	15:45	21:45	9:45	Comfort Break		
Session – Maxwell (Chair: Kevin Chen)						
15:00	16:00	22:00	10:00	Yang Liu	University of Exeter	Utilising the Vibro-Impact Self-Propelled Capsule for Small-Bowel Endoscopy
15:30	16:30	22:30	10:30	Zaneta Koszowska	University of Leeds	Mechanical Reinforcement towards Fully Soft Magnetic Manipulators for Surgical Applications
15:45	16:45	22:45	10:45	Kenneth Afebu	University of Exeter	AI Assisted Biomechanical Tissue Evaluation for Early Bowel Cancer Diagnosis using a Robotic Capsule
16:00	17:00	23:00	11:00	Jialei Shi	UCL	Design and Modelling for Chamber-Reinforced Soft Robots with Dimension Scalability
16:15	17:15	23:15	11:15	Kaushik Jayaram	University of Colorado Boulder	Towards Autonomous Locomotion in Cluttered Terrain using Insect-Scale Robots

Tuesday, 21 June 2022 (Day 2)

Time				Speaker	Affiliation	Title
BST	CEST	CST	EDT			
Session – Bernoulli (Chair: Xiangzhong Chen)						
13:00	14:00	20:00	8:00	Salvador Pané i Vidal	ETH Zürich	Electrifying Small-Scale Robots
13:30	14:30	20:30	8:30	Fengtong Ji	The Chinese University of Hong Kong	3D Reconfigurable Microrobot Swarm Mimicking Schooling Fish
13:45	14:45	20:45	8:45	Benjamin Jarvis	University of Essex	Steering Platform for Microswarm Guidance in Multi-Bifurcation Vessels
14:00	15:00	21:00	9:00	Andrew Bickerdike	University of Exeter	CFD Modelling of Magnetic Microrobots in the Gastrointestinal Circulation for Metastatic Cancer Detection
14:15	15:15	21:15	9:15	Kiana Abolfathi	University of Essex	A Numerical Platform for Prediction Behavior of Magnetic Microswarms under the Different Dynamic Magnetic Field Conditions
14:30	15:30	21:30	9:30	Comfort Break		
Session – Watt (Chair: Ali Hoshiar)						
14:45	15:45	21:45	9:45	Luigi Manfredi	University of Dundee	A Cost-Effective Smart Soft-Endorobot for Colonoscopy
15:15	16:15	22:15	10:15	Michael Brockdorff	University of Leeds	Dual-Arm Platform for Control of Magnetically Actuated Soft Robots
15:30	16:30	22:30	10:30	Jiajia Zhang	University of Exeter	Design and Experimental Investigation of a Vibro-Impact Self-Propelled Capsule Robot with Orientation Control
15:45	16:45	22:45	10:45	Sara Adela Abad Guaman	UCL	Using Bio-Inspiration and Embodied Intelligence to Improve the Adaptability of Robots and Performance of Sensors and Actuators
16:15	17:15	23:15	11:15	Jiyuan Tian	University of Exeter	Finite Element Analysis of a Soft Vibro-Impact Capsule Robot Self-Propelling in the Small Intestine

Wednesday, 22 June 2022 (Day 3)

Time				Speaker	Affiliation	Title
BST	CEST	CST	EDT			
Session – Coulomb (Chair: Quentin Boehler)						
13:00	14:00	20:00	8:00	Morteza Amjadi	Heriot-Watt University	Functional Nanomaterial Composites for Soft Sensing and Actuation
13:30	14:30	20:30	8:30	Xiangbo Zhou	University of Wollongong	Variable Stiffness Wires Based on Magnetorheological Liquid Metals
13:45	14:45	20:45	8:45	Zhijian Ren	MIT	High Lift Insect-Scale Aerial Robot Powered by Low-Voltage and Long-Endurance Dielectric Elastomer Actuators
14:00	15:00	21:00	9:00	Guolin Yun	University of Cambridge	Surface Structured Liquid Metal Hybrid Composite Films for Flexible Pressure Sensor with High Sensitivity and Large Dynamic Range
14:15	15:15	21:15	9:15	Suhan Kim	MIT	FireFly: An Insect-Scale Aerial Robot Powered by Electroluminescent Soft Artificial Muscles
14:30	15:30	21:30	9:30	Comfort Break		
Session – Euler (Chair: Morteza Amjadi)						
14:45	15:45	21:45	9:45	Ali Hoshidar	University of Essex	Magnetic Soft Microrobots for Endovascular Interventions
15:15	16:15	22:15	10:15	Dario Cortese	University of Exeter	Distinct Gaits of Self-Propelled Quadriflagellate Microswimmers
15:30	16:30	22:30	10:30	Jialun Liu	University of Sheffield	Wireless Power Transmission of Self-Folding Origami Robot
15:45	16:45	22:45	10:45	Quentin Boehler	ETH Zürich	Magnetic Actuation for Small-Scale Robotics
16:15	17:15	23:15	11:15	Closing Ceremony		