

Russell Binions Research Symposium 2024

Date: Tue 23rd April 2024

Venue: Bancroft Building: David Sizer LT, Mason LT, Bancroft 2.40

Event starts at 1300 and runs till 1900; 3 parallel sessions (1 per Research Centre)

Note that the start times for different Centres is slightly different to allow conclusion at same time

Centre for Intelligent Transport Research Centre

David Sizer LT

15 min per talk including questions (10 min + 5 questions)

	Time	Speaker	Title
1	1300	Yushen Wang	Energy efficient out-of-oven manufacturing of natural fibre composites with integrated sensing capabilities and improved water barrier properties
2	1315	Tayyab Ahmad Ansari	Development of wearable exoskeleton for knee joint
4	1330	Bijoy Das	Foe to Friend: Utilising Gradual Positive Temperature Coefficient (PTC) Effect for Sustained Self-Regulating Heating Devices with High Temperature Thermoplastic Elastomer Nanocomposites
5	1345	Nilofar Taraki	A study into the pinch-off dynamics of coaxial droplets
6	1400	K M Talha Nahiyani	Surface Electromyogram-based Hand Movement Recognition using Deep Learning and Control of a Prosthetic Hand
7	1415	Wenqi Wang	Mechanical Properties and Environmental Effects of Carbon Nanotube (CNT) Film Performance Under High-Velocity Impact
	1430-1500	Coffee Break	
8	1500	Danyaal Mohamed Kaleel	Motion Control Mechanisms for Underwater Eversion Robots
9	1515	Shahed Ekbatani	Nano-engineered hierarchical natural fibre composites with localised cellulose nanocrystals and tailored interphase for improved mechanical properties
10	1530	Eathan Plaschka	Exploring Friction and Wear Characteristics of Tire Tread Compounds: How to Advance Safety and Sustainability During Development
11	1545	Evangelos Koliolios	Understanding the generation of tyre wear particles during rubber abrasion
12	1600	Aaron Duncan	Understanding crack growth of rubber composites at different crack growth speeds
13	1615	Rattapong Numard	The effect of carbon black surface modification on the viscoelastic properties of the elastomer composites
	1630	Feedback session	

Sustainable Engineering Research Centre

Mason Lecture Theatre

15 min per talk including questions (10 min + 5 questions)

Time	Speaker	Title
1315	Emanuele Palladino	Strain-Mediated Photovoltaic Properties in Ferroelectric Nanocomposites
1330	Hongna Yuan	Seaweed-based biopolymers for sustainable packaging solutions
1345	Zhihao Xing	Neural network potential-based molecular investigation of pollutant formation of ammonia and ammonia-hydrogen combustion
1400	Xin Qi	Processing and characterization of Hot Rolling Pressed PVDF films with enhanced field induced polarization
1415	Zhipeng Lin	Promotion of the C-C coupling reaction by Nanoparticles embedded in MOFs
1430-1500	Coffee Break	
1500	Jessica Spencer-Dene	Membrane-Assisted Antisolvent Crystallisation: A Cheaper and Greener Approach to Peptide Synthesis?
1515	Jang Won Shon	Molecular Dynamics Simulation of Surfactant Phase Transitions at Oil-Water Interfaces
1530	Madsar Hameed	Enhanced aerosol-assisted crystallisation of phase-stable FAPbI ₃ perovskite for photovoltaics using MASCN additives
1545	Dilara Suulker	Flow Boiling of Zeotropic Mixture Refrigerant R456a in Microchannels
1600	Molly McVea	Thermoelectric Metal-Organic Frameworks: The Answer to the Phonon-Glass Electron-Crystal Concept?
1615	James Botwright	PEPSTAR: Peptide Synthesis by Nanostar Sieving
1630	Feedback session	

Bioengineering Research Centre

Bancroft: 2.40

15 min per talk including questions (10 min + 5 questions)

Time	Speaker	Title
1330	Holly Bachas Brook	Development of a Functional 3D Eccrine Sweat Gland Model
1345	Carlos Eduardo Neri Cruz	Surface-Initiated Polymer Brushes for Controlled RNA Delivery
1400	Yu Hou	Development of an arterial chip to study the role of mechanobiology in atherosclerosis
1415	Zilong Li	Flexible Ultrasound Patch for Cardiovascular Health Monitoring
1430-1500	Coffee Break	
1500	Jiazhe Zhao	3D photoelectrochemical imaging.
1515	Mah Roona Fazal	Skeletal Muscle on a chip to examine injury
1530	Beth Louise Cutting	Development of a kidney organ-chip model to study therapeutic regulation of primary cilia mechanobiology
1545	Zimpi Helen Kono	miRNAS Sequence Embedding For Pathway Detection And Selectivity using Machine Learning
1600	Aalia Rehman	Tissue in a Tube Bioreactor for Bone Formation
1615	Han Wang	The Impact of Ferroptosis Stress on Vascular Remodelling: Insights from Vein Graft Transplantation
1630	Feedback	

Common Session

1700-1800: Keynote lecture by Dr. Man Zhang, Leeds University, (QMUL PhD): Venue: **Mason Lecture Theatre**

1800-1900: Drinks and nibbles reception (Bancroft Foyer) in parallel with

1800-1900: Prize ceremony (best presentations and other prizes;) Venue: **Mason Lecture Theatre**