Programme

Day 1 (06/11/2019)		Location
0930	Arrival, Registration and Exhibits	Reception
	Opening Session	
1000	Welcome: Richard Burguete; National Physical Laboratory	Auditorium
	Session 1: Enabling a Stronger Society **Chair:** Lewis Hill	
1015	**Keynote**: What has metrology ever done for me? *Graeme Reid; Science and Research Policy, University College London*	Auditorium
1045	Developing characterisation measurements for quantum key distribution *Sophie Albosh; University of York*	Auditorium
	Seeing sustainability from space using Earth observation data to populate sustainable development goal indicators *Ana Andries; University of Surrey*	
	The myriad applications of microresonators *Michael Woodley; Heriot-Watt University*	
	Accelerated ageing of polymer composites and the effect of moisture absorption on mechanical and chemical properties *Jasmine Bone; University of Surrey*	
	Poster Session 1 Chair: Minal Patel	
1145	1-minute Introduction	Auditorium
1200	Poster Viewing	Upstairs - Foyer
1230	Lunch and Poster viewing continued	Reception
1315	Conference Photo	Reception
	Session 2: Sustaining Our Environment Chair: Emma Braysher	
1330	**Keynote**: Measurement Scientists and Sustainability *Chris France; University of Surrey*	Auditorium
1400	Using Isotopic Signature of Methane in Budget Estimation *Alice Drinkwater and Edward Chung; University of Edinburgh*	Auditorium

	Modelling Energy Demand response using long-short term memory neural networks *Jose Mesa Jimenez; Brunel University London*	
	Mobile Air Quality Sampling in London UK *Geoff Ma; University of Cambridge*	
	Geo-polymer based stabilisers as an alternative to traditional stabilisers for flexible pavement construction *Hadi Abba; University of Surrey*	
	Poster Session 2 Chair: Edward Chung	
1500	1-minute Introduction	Auditorium
1515	Poster Viewing	Upstairs - Foyer
1545	Coffee	Reception
	Session 3: Creating Impact on Health Chair: Ben Webster	
1600	**Keynote**: The Importance of Metrology in the Application of Medical Imaging to Drug Development *Fred Wilson; Experimental Medicine Imaging, GlaxoSmithKline*	Auditorium
1630	Laser Desorption – Rapid Evaporative Ionisation Mass Spectrometry Platform for Tissue Imaging *Daniel Simon; Imperial College London*	Auditorium
	Validation of texture analysis in CT imaging *Christopher Green; University of Surrey*	
	Raman metrology for live cell imaging *Caitlin Thomson; University of Strathclyde*	
	Implantable ultra-flexible bioelectronic mesh: reinvention of the cardiac pacemaker *Danielle Cox-Pridmore; University of Surrey*	
	Closing Session	
1730	Voting and Closing Remarks	Auditorium
1800	Close Day 1	Auditorium
1845	Drinks Reception and Conference Dinner	Park Hotel

Day 2 (07/11/2019)		**Location**
0930	Registration and coffee	Reception
1000	Welcome: Paddy Regan; University of Surrey, National Physical Laboratory	Auditorium
1015	Scene setting: Planning your career – getting the most out of today *Vishanti Fox; Institute of Physics* *Veronica Benson; South East Physics Network*	Auditorium
1045	**Keynote**: The physics of imaging and why it matters. A journey from 1.8 to 310.2K *Phil Marsden; Unitive Design and Analysis*	Auditorium
1115	**Keynote**: Impact through science *Josephine Bunch; National Physical Laboratory*	Auditorium
1145	Employer Elevator Pitch (10 x 5mins) *Led by Veronica Benson, South East Physics Network*	Auditorium
1245	Networking Lunch	Reception
1345	Career Panel (10 x 3 mins) *Led by Vishanti Fox; Institute of Physics*	Upstairs breakout room
1415	Break out into the Global Café (10 x 9mins) - refreshments provided	Upstairs breakout room
1545	Reflective Practice (60mins) *Led by Amy Pearce; Institute of Physics*	Auditorium
1645	Closing Remarks	Auditorium
1700	Depart	
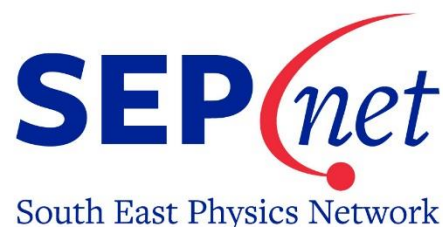
Posters

1	**Numerical methods for efficiently solving fractionally damped wave equations** *Katie Baker; Herriot-Watt University*	
2	**Modelling and simulations of energy storage devices** *Joshua Bates; University of Surrey*	
3	**A transfer and scattering matrix model of the NPL plane mirror differential interferometer** *Angus Bridges; Cranfield University*	
4	**Fast-neutron induced fission studies for Nuclear Data measurements** *Rhiann Canavan; University of Surrey*	
5	**Is urban air quality improving? Understanding trends in combustion particles.** *Krzysztof Ciupek; King's College London*	
6	**Design and Development of an X-ray Interferometer for Length Metrology** *Declan Cotter; University of Cambridge*	
7	**Fibre-Optic pH Sensor Based on Silver Nanoparticles for Harsh Environments** *Shaon Debnath; University of Strathclyde*	
8	**Towards All-Optical Computing** *Leonardo Del Bino; Heriot-Watt University*	
9	**Extension of Coupled Mode Equations Describing Parametric Amplification** *Tom Dixon; Royal Holloway, University of London*	
10	**Uncertainty quantification in unsupervised learning** *David Fernandes; University of Bath*	
11	**Proof of concept investigation for in-vivo verification of microbeam radiotherapy using high resolution pixelated detectors** *Sam Flynn; University of Birmingham*	
12	**Can SPECT Resolution Be Considered Invariant in Partial Volume Correction?** *Rebecca Gillen; University College London*	
13	**Interlaboratory evaluation of MALDI and DESI MSI in the CRUK Grand Challenge programme** *Melina Kyriazi; Imperial College London*	
14	**Determining the level and location of functional groups on few-layer graphene and their effect on the mechanical properties of nanocomposites** *Elizabeth J. Legge; University of Surrey*	
15	**Preliminary Field Trial of CHAFF: CubeSat Hyperspectral Application For Farming** *Callum Middleton; University of Surrey*	
16	**Automatic Detection of Canine Soft Tissue Sarcoma Using Transfer Learning Algorithms** *Ambra Morisi; University of Surrey*	
17	**Development of Cellular Metabolomics** *Catherine Munteanu; Imperial College London*	
18	**Radiotherapy MLC Upstream Leaf Edge Detection Using Lassena Large Area MAPS** *Jordan Pritchard; University of Bristol*	
19	**Different Deep Learning Loss functions for grading Mast Cell Tumors using a weakly imbalanced histopathological dataset.** *Taran Rai; University of Surrey*	
20	**Scope and limitations of Nuclear Magnetic Resonance techniques for characterisation and quantitation of vitamin D in complex mixtures** *Cameron Robertson; Kingston University*	
21	**Investigating Biological Response of Combined Radiation and Magnetic Field Exposures with Nanoparticle Contrast Agents** *Emily Russell; Queen's University Belfast*	
22	**Power Quality Analysis in 25 kV 50 Hz AC Railway System Networks** *Yljon Seferi; University of Strathclyde*	
23	**Large Scale Inference and Optimal Sensor Placement with Applications to Environmental Monitoring** *Louis Sharrock; Imperial College London*	
24	**Beam Profile Investigation of an Optoelectronic Continuous-Wave Terahertz Emitter** *Jessica F. Smith; University of Surrey*	
25	**Characterization of Hypoxic Organoid System for Radiation Response Studies of Pancreatic Ductal Adenocarcinoma** *Gabrielle Wishart; University of Surrey*	
26	**Development of Hybrid Quantum Interference Devices for NMR** *Dan R. M. Woods; Royal Holloway, University of London*	
Totem	**Entries for the Photo Competition**	