

**EPSRC CDT in Intelligent Sensing and Measurement**

**Annual Conference**

**9<sup>th</sup> November 2016, Senate Room, University of Glasgow**

**PROGRAMME**

**09:30 – Registration and Coffee**

**10:00 – Welcome**

Prof Andy Harvey, CDT-ISM Director, School of Physics and Astronomy, University of Glasgow

**Session 1 – Prof Anthony Walton**

**10:05 - Welcome from the Dean of Research**

Prof Chris Pearce, Dean of Research, Science and Engineering College, University of Glasgow

**10:15 – Green-house Gas Measurements from the Tropopause**

Andy Vicks, UK Astronomy Technology Centre, Edinburgh

**10:45 – SPAD for Fluorescence Measurement**

Claudio Accarino, CDT Student, University of Glasgow

**11:00 – Development of a Field Prototype MEMS Gravimeter**

Steven Bramsiepe, CDT Student, University of Glasgow

**11:15 – Ring Resonators: Exploiting Non-Resonances as a Source of Signal Reference**

Joseph Bronstein, CDT Student, University of Glasgow

**11:30 – Decision Support for Animal Welfare**

Christopher Davison, CDT Student, University of Strathclyde

**11:45 – Towards a Simple, Label-Free Sensing System for the Investigation of Origin of Life Chemistry**

David Doran, CDT Student, University of Glasgow

**12:00 - Lunch and Poster Presentations by CDT and Sensor and Measurement PhD students**

## Session 2 – Prof Andy Harvey

### **13:30 – Sensor Applications in NanoSatellite Platforms**

Andrew Strain, VP of Engineering, Clydespace

### **14:00 – Using Atomic Structure/Composition Data to Improve Sensing Systems**

Alastair Doye, CDT Student, University of Glasgow

### **14:15 - Triple Wavelength Superspectral Camera and Holography**

Mark Humphreys, CDT Student, University of Glasgow

### **14:30 – A Novel PDMS-Based Nanocomposite Material for Pressure Sensing in Next-Generation Gait-Analysis System**

Zakareya Hussein, CDT Student, University of Edinburgh

### **14:45 – Developing Robust Nanoelectrodes for Online Monitoring in Nuclear Fuel Reprocessing**

Hannah Levene, CDT Student, University of Edinburgh

### **15:00 – Tea and Coffee**

## Session 3 – Prof Ian Underwood

### **15:30 – Distributed Sensing with Swarm Robots**

Markus Nemitz, CDT Student, University of Edinburgh

### **15:45 - A Spinning, Tuneable, Liquid Crystal Laser System for Biomedical Microscopy**

Margaret Normand, CDT Student, University of Edinburgh

### **16:00 – Evaluation of Novel Silicon Photomultipliers for Radiation Detection Applications**

Francis Thomson, CDT Student, University of Glasgow

### **16:15 – A Quantum Shadow Sensor for Gravity**

Ernes Toninelli, CDT Student, University of Glasgow

### **16:30 - Close**

Prof Andy Harvey, CDT-ISM Director, School of Physics and Astronomy, University of Glasgow

## POSTER PRESENTATIONS

### **Integrated Biosensors for Field-Based Diagnostics**

Scott Deans, University of Glasgow

### **Enzymatic Uric Acid Sensing with Nanoband Array Electrodes** Jennifer

Dodoo, University of Edinburgh

### **Smart Contact Lenses: A Non-Invasive, Continuous Sensor** Matthew

Donora, University of Edinburgh

### **Towards New Techniques for Assessing Vascular Health**

Ross Drysdale, University of Glasgow

### **From Stars to Zebrafish: Story of an Astronomer who Meets Light-Sheet Microscopy**

Chiara Garbellotto, University of Glasgow

### **Oligonucleotide-Crosslinked Polymer Composites for Micro-RNA Detection and Disease Diagnosis** Gerry

Langford, University of Edinburgh

### **Nanowire Based High Performance Flexible Electronics**

Fengyuan Liu, University of Glasgow

### **Multimodal Approach for the Early Detection of Multiple Sclerosis**

Callum MacArthur, University of Edinburgh

### **MEMS Gradiometers for Attitude Control of Cubesats**

Giovanna Marocco, University of Glasgow

### **Testing a Proof of Concept Autofluorescence Imaging System for Capsule Endoscopy** Gianluca

Melino, University of Glasgow

### **Wireless High-Sensitivity Pressure Sensors for Medical and Sports Compression Garments** Vasileios

Mitrakos, University of Edinburgh

### **Multi-Sensory Platform for Water Quality Monitoring**

William Ringal Taube Navaraj, University of Glasgow

### **Photonic Rotation Sensing**

Martin Sinclair, University of Glasgow

### **Challenges in Integrating Biosensor Devices into the Tissue** Paul

Sullivan, University of Edinburgh

### **Flexible Silicon Ultra-Thin Chips for Biomedical Applications**

Anastasios Vilouras, University of Glasgow

### **Development of Advanced and Computational Imaging Techniques for Biomedical Imaging**

Stuart Wilson, University of Glasgow