



# Innovations in Large-Area Electronics Conference

21-22 January 2020

Wellcome Genome Campus, Cambridge, UK

*Printable, flexible, plastic, organic & bio- electronics  
Researchers • Manufacturers • Integrators • Users*

## Call for papers

**Large-Area Electronics (LAE)** is a new way of making electronics and includes printed, flexible, plastic, organic and bio- electronics. LAE has the potential to both open up new markets for electronics and to expand existing products by adding new form factors, new functionality and enabling new cost structures. Applications abound in high growth industrial sectors such as healthcare and medical, sport and fitness, fast moving consumer goods, automotive, the Internet of Everything, printing and packaging and smart wearables. The new form factors and flexibility possible with LAE allow electronic systems to be deployed in a wide variety of non-traditional situations: in and on paper, plastic, textiles, furniture, cars and buildings, as well as on packaging and even in and on the human body.

**innoLAE 2020** represents a unique opportunity to hear the latest developments from academic and industrial teams active in LAE research and technology, including keynotes and invited talks from leading international organisations.

Our sixth annual conference, **innoLAE 2020** will be on January 21-22 2020 at the Wellcome Genome Campus, Cambridge, UK, presenting a varied 2-day programme featuring contributions from academia and industry, highlighting the most recent and exciting innovations in LAE and new products incorporating LAE technologies. **innoLAE 2020** will offer both plenary and parallel track oral presentations, a poster session with prizes awarded to the most promising scientific and technical developments, an exhibition with leading companies and organizations showcasing their latest products and developments, and networking opportunities, including a reception and a conference gala dinner.

We invite contributions to the conference programme on topics relating to LAE such as:

### 1. Manufacturing LAE

- Addressing the challenges and opportunities of non-traditional substrates e.g. paper, plastics, metal, fabrics, living tissue
- Improved and novel processes for LAE manufacturing offering higher throughput, functionality, yield or lower cost
- Entirely new paradigms for LAE manufacturing
- Tackling the challenges of scale-up in LAE manufacturing, including metrology, yield, lean manufacture and design for manufacturing
- 3D printing of electronics

### 2. High-performance materials for LAE

including

- Organic semiconductors,
- Metal oxides,
- Graphene, 2D and layered materials,
- Perovskite materials
- Quantum dots,
- Novel conductors and dielectrics
- stretchable and biocompatible materials,
- biodegradable substrates, etc. (not including production technologies for materials)

### 3. Novel devices and systems for LAE

- OLEDs for display and lighting
- Transistors, diodes, sensors, detectors, etc.
- Energy harvesting and storage using LAE – (e.g. RF, piezo, thermal and solar harvesting, printable batteries and supercapacitors)
- Third generation PV – organic, perovskite, QD and other hybrids
- Circuit elements e.g. amplifiers, A-D converters, multiplexers, microprocessors etc.
- Circuits incorporating LAE including multi-element LAE device arrays
- Flexible displays – both emissive and reflective

### 4. LAE Technology Platforms

- Flexible hybrid electronics - integrating organic or printed electronics with thinned and unpackaged conventional semiconductor devices,
- E-textiles and wearable LAE
- Stretchable and conformable electronics
- Structural electronics

### 5. Applications of LAE

Including

- Internet of Things,
- Healthcare and medical,
- Automotive,
- Smart buildings
- Security applications
- Design of systems using LAE components for particular applications
- Application case studies of new LAE systems used in market trials

### 6. Bioelectronics: LAE devices and systems for bioelectronics; new applications of bioelectronics; new business models for bioelectronics

### 7. Sustainability of LAE: Sustainable materials; End-of-life management; waste reduction; recycling and reuse of LAE materials, components and systems; Opportunities for LAE to enable a sustainable economy

## Submission

Abstracts for oral *and* poster presentations need to be submitted using the **Word document template** provided, [here](#). Your abstract file should then be uploaded, alongside your details, using the [online submission form](#). For further submission instructions see [the guidelines document](#).

**A condition of submission is that, if accepted, the paper will be presented at the conference by one of the authors.**

- **Selection Criteria:** The programme committee will select papers within conference scope to create a balanced programme based on degree of innovation, manufacturing advance and commercial opportunity.
- **Conference Rates:** Industry contributors whose papers are accepted for oral presentation may register for the conference at the discounted academic rate of £320 (*standard registration rate is £480*). *Academic contributors will receive the academic rate of £320, or £200 for students.*

## Key dates

**Deadline:** Submit your abstract and biography by **30 September 2019**.

**Notification:** We aim to notify contributors of the Programme Committee's decision by **31 October 2019**.

## **innoLAE 2020 Programme Committee**

**Chris Rider**, *Conference Chair, EPSRC Centre Director, University of Cambridge, UK*  
**Dr Mark Leadbeater**, *EPSRC Centre Programme Manager, University of Cambridge, UK*  
**Dr Natasha Conway**, *Beko, UK*  
**Cathy Curling**, *Curling Consulting, UK*  
**Dr Ravinder Dahiya**, *University of Glasgow, UK*  
**Dr Dimitra Georgiadou**, *Imperial College London, UK*  
**Dr Eifion Jewell**, *Swansea University, UK,*  
**Dr Simon Johnson**, *Centre for Process Innovation Ltd, UK*  
**Prof Donald Lupo**, *Tampere University, Finland*  
**Prof George Malliaras**, *University of Cambridge, UK*  
**Prof Rodrigo Martins**, *New University of Lisbon, Portugal*  
**Dr Luigi Occhipinti**, *University of Cambridge, UK*  
**Prof Krishna Persaud**, *University of Manchester, UK*  
**Dr Catherine Ramsdale**, *PragmatIC, UK*  
**Prof Henning Sirringhaus**, *University of Cambridge, UK*  
**Dr Paul Smith**, *Xerox Research Centre of Canada*  
**Prof Luisa Torsi**, *University of Bari, Italy*