

# Printed Electronics ASIA 2012

October 2-3 | Tokyo, Japan

Conference  
Exhibition  
Masterclasses  
Tours



## Attendees benefit from:

- 2 full days of presentations and exhibition
- Unrivalled networking opportunities
- Free IDTechEx report with conference package

## Speakers include:



## Exhibitors include:



Printed Electronics Asia 2012  
October 2-3 | Tokyo, Japan

# Your Gateway to Understanding & Selling Printed Electronics in Asia

Printed Electronics Asia 2012 builds on the extensive research IDTechEx has conducted in Asia over the last 10 years. It puts you at the heart of the activity. The return on investment for attending is superb; you will gain understanding of the activity in the territory, exclusive insight & competitiveness in the market. Attendees have access to the latest research on printed electronics in Asia by hearing from and meeting leading developers across the region. No other show brings these heavyweights together for you.

 **Register Now**

[www.PrintedElectronicsAsia.com](http://www.PrintedElectronicsAsia.com)

**IDTechEx**

Analysts will provide insights for each technology topic covered in the conference including ten year forecasts and market trends"

## New Material Breakthroughs

**SAMSUNG**

### Samsung SAIT, Korea

Dr Bang-lin Lee / R&D Staff Member  
"Thiophene and Thiazole copolymer based Organic Semiconductor Inks for Printed Electronics"

**Hitachi Chemical**  
Working On Wonders

### Hitachi Chemical, Japan

Miss Kyoko Kuroda /  
"Conductive Copper Materials for Printed Electronics"

**UNIVERSITY OF CAMBRIDGE**

### University of Cambridge, United Kingdom

Dr Sieglind Pfaendler / Research Associate  
"Metal Oxide Materials for Large-Area and Transparent Electronics"

## Logic & Memory

**SUNCHON NATIONAL UNIVERSITY**

### Sunchon National University, Korea

Prof Gyoujin Cho / Professor  
"Full Gravure System for Printing 13.56 MHz Operated 96 Bit RFID and NFC Tags"

**香港城市大學**  
City University of Hong Kong

### City University of Hong Kong, Hong Kong

Dr Roy Vellaisamy / Assistant Professor  
"Printable self-assembly materials for flash memories"

**INSTITUTE OF MATERIALS RESEARCH AND ENGINEERING**  
IMRE

### Institute of Materials Research and Engineering (IMRE), Singapore

Dr Jie Zhang / Sr. Scientist and Program Manager  
"Fully printed Digital-Asynchronous-Logic Circuits on Flexible Plastic Films"

**MERCK**

### Merck, Germany

Dr Klaus Bonrad / Senior Manager  
"TFT Developments at Merck"

**東京工業大学**  
Tokyo Institute of Technology

### Tokyo Institute of Technology, Japan

Prof Mitsumata Iwamoto / Professor  
"Visualization of Carrier Motion in Organic Devices by Time-resolved Optical Second Harmonic Generation"

## OLED vs LED Lighting

**KONICA MINOLTA**

### Konica Minolta, Japan

Masanobu Miyoshi / Manager of DM Development  
"Application of Printed Electronics Technologies to OLED Lighting"

## OLED Displays

**UNIVERSAL DISPLAY CORPORATION**

### Universal Display Corporation, USA

Dr Kentaro Harada / Key Acct. Manager, Japan  
"Phosphorescent Inks for Energy Efficient Solution Processed OLEDs"

**CDT**

### Cambridge Display Technology (CDT), United Kingdom

Dr Jeremy Burroughes / Chief Technical Officer  
"Sumitomo Chemical and CDT's Plastic Electronics Activities"

**Kyung Hee UNIVERSITY**

### Kyung Hee University, Korea

Prof Jin Jang / Director Advanced Display Research Center  
"Display Research at Kyung Hee University"

## End User Needs and Experiences

**oxplane**

### DECATHLON, France

Mr Antoine Ravise / R&D Engineer  
"Opportunities of Printed Electronics for Sport Products"

**US ARMY**

### US Army, USA

Mr James Zunino / ARDEC Project Officer / Materials Engineer  
"Overview of Materials Printing Capabilities and Prototype Development for U.S. Army Applications"

## Future of Transparent Conductors

**OSAKA UNIVERSITY**

### Osaka University, Japan

Prof Katsuaki Suganuma / Industrial Science Laboratory Deputy Head  
"Printed Silver Lines on Flexible Substrates"

**SWeNT**

### SouthWest NanoTechnologies, USA

Mr David Arthur, CEO  
"Carbon Nanotube Technologies at SWeNT"

## Solar Opportunities

**NAVIGANT**

### Navigant Consulting, USA

Ms Paula Mints / Director, Energy  
"Markets for Photovoltaic Technologies: 2011 and Beyond"

**DYESOL**

### Dyesol, USA

Mr Marc Thomas / CEO  
"Third Generation Solar Technology: Transforming Buildings into Power Plants with DSC"

**APPLIED MATERIALS**

### Applied Materials, USA

Ms Eileen Tanghal / Investment Director  
"Printed Electronics - The Pathway to Success"

**NREL**

### National Renewable Energy Laboratory, USA

Dr Dana Olson / Research Scientist  
"Advances in Photovoltaics at NREL"

## Stretchable and Sensing Electronics

**MC10 Inc.**

### MC10, USA

Mr David A Icke / CEO  
"Technology and Applications for High Performance Stretchable Electronics"





### University of Tokyo, Japan

Dr Tsuyoshi Sekitani / Assistant Professor  
"Printed, Ultraflexible Transistor Active Matrix for Bio/Medical Sensors"

### Printed Electronics Manufacturing: Challenges & Solutions



### Printable Electronics Research Centre, China

Prof Zheng Cui / Director  
"Key Challenges in Nanomaterials-based Printed Electronics"



### GSI Technologies LLC, USA

Dr Gordon Smith / CTO  
"Manufacturing Printed Electronic Devices"

### The Analyst View

### IDTechEx

### IDTechEx, United Kingdom

Mr Raghu Das / CEO  
"Printed Electronics State of Play: 2012-2022"

**Register Now**

[www.PrintedElectronicsAsia.com](http://www.PrintedElectronicsAsia.com)



## Analyst-led Masterclasses

The four optional analyst-led masterclasses are interactive consultancy sessions, covering IDTechEx market research, and technology appraisal from world-leading experts. Each masterclass appraises the market opportunity with detailed forecasts and assess the technologies, competitive landscape, value chain drivers, barriers, case studies and global trends. They provide impartial and accurate insight into these sectors, based on primary research carried out by technical IDTechEx analysts around the world.



At each masterclass you will have the chance to handle many samples, and take away printed copies of presentations. They will ensure you get the most from the conference and leave with answers to your questions.

### 1. Introduction to Printed, Organic and Flexible Electronics: Markets, Drivers and Case Studies Covering Displays, Lighting, Power, Sensors & Logic

Designed for those who are new to this disruptive technology or need to understand the big picture to assess the challenges and opportunities, this Masterclass will arm you with the latest knowledge of the applications and technology developments involving printed electronics. The class will cover:

- Present and future applications
- Market size and opportunities
- Trends by territory
- Technology appraisal – Displays, OLED lighting, thin film transistors, sensors, conductive inks, batteries, actuators, and photovoltaics

### 2. Materials: Organic and inorganic Functional Materials

This technical masterclass looks at the full range of different materials, comparing for each one the available chemistries, performance, cost, printability, lifetime, suppliers, applications and multiple other parameters. In particular, the masterclass covers:

- Semiconductors – organic (including carbon nanotubes and graphene), inorganic (including metal oxides and silicon), and dielectrics
- Metallic conductors (silver, copper and other metal nanoparticles, nanorods and nanowires)
- Organic conductors (including carbon nanotubes and graphene)
- Applications – photovoltaics, displays and lighting, touchscreens, logic and memory, actuators and sensors, conductors, and batteries

### 3. Flexible Substrates, Barriers and Transparent Films: For Displays, Lighting, PV, Touchscreens, Logic, Sensors and beyond

This technical Masterclass explains the needs, the options and the future trends for the chemical structure and processing of flexible materials that are required to enable flexible electronics. In particular, it addresses the following flexible components for displays, lighting, PV, touchscreens, logic and sensors:

- Flexible substrates
- Barrier Films
- Market opportunity
- Forecasts for barriers for 2012-2022 for OLED Displays and Lighting and OPV
- Transparent Conductive Films

### 4. Printing Technologies: Requirements, Needs, Case Studies and Technical Assessment

This masterclass assesses the range of printing and non-printing manufacturing and handling options for the new printed, organic and flexible electronics. It covers:

- Assessment of printing technologies and related materials for screen, inkjet, gravure, flexo, DPN and more
- Assessment of non-printing options such as die slot coating, CVD, ALD, spin coating etc
- Relevance of each manufacture technology to each application type
- Where each is used and detailed case studies of printing and material selection
- Challenges and how to address them
- Suppliers and market opportunity



+ 44 1223 813703



+49 351 65 888 313



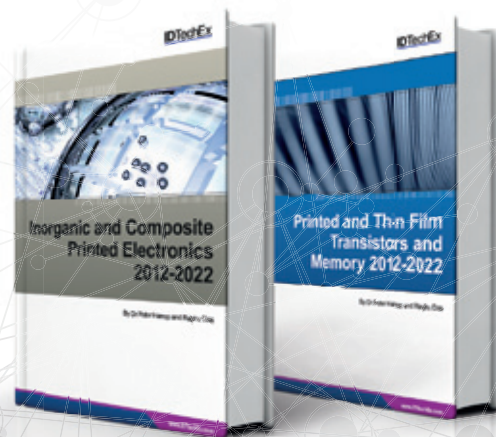
+1 617 577 7890

**IDTechEx**

# All conference attendees receive an IDTechEx report worth over \$3500.

Choose between:

*Inorganic & Composite Printed Electronics 2012-2022 or  
Printed and Thin Film Transistors and Memory 2012-2022*



 **Register Now**



## ● Demonstration Street

Fully functioning printed electronics demonstrators will be showcased during the exhibition. See what products are already possible using the new electronics, including: flexible displays, OLEDs, e-readers, audio paper, interactive games, smart phone apps, printed RFID and smart textiles



*I congratulate IDTechEx for managing to offer the tour option, because I am sure that it could not have been easy to convince the Japanese to open their doors as willingly as they did. I find the meetings that you put together, both for their technical content and the networking opportunities, to be precisely what I am looking for: a quick update on what is going on at the leading edge of a very rapidly growing field.*

General Electric

## ● Company Tours

IDTechEx hosted tours allow you to visit leading printed electronics organizations in Japan for an exclusive insight into their work and progress. Don't miss this rare opportunity to visit these pioneering establishments.

Confirmed Tours:

**TOPPAN FORMS**

For updated list check

[www.PrintedElectronicsAsia.com](http://www.PrintedElectronicsAsia.com)



Printed  
Electronics  
ASIA2012



 **REGISTER AT: [www.PrintedElectronicsAsia.com](http://www.PrintedElectronicsAsia.com)**

**IDTechEx**