

# REVISED DATES / EXTENDED DEADLINE



NIP/DIGITAL  
**Printing for Fabrication 2018**  
DIGITAL  
*materials, applications, and processes*

September 23-27, 2018  
Dresden, Germany

CALL FOR PAPERS

## CONFIRMED OPENING KEYNOTE: Professor Karl Leo, Technische Universität Dresden

### Organic Semiconductors: From Vacuum Deposition to Printing

Organic semiconductors offer key advantages, such as flexibility, easy recycling, and low cost. The first part of this talk, covers recent progress on devices such as highly efficient OLED, solar cells, transistors, and sensors and discuss the many novel applications these "soft" electronic devices" offer. In the second part, addresses manufacturing issues and moving from the current vacuum techniques to low-cost printing.

## SUBMISSIONS IN THE FOLLOWING AREAS ARE ENCOURAGED:

### Printing for Graphics and New Functionalities

- Toner-based Processes
- Inkjet-based Processes
- Hybrid Technologies (Print and Laser)
- Aerosol-Jet Based Processes
- Thermal Printing
- RIP and Pre-press Solutions
- CAM for Digital Production
- Digital Finishing and Converting
- Security Printing
- Digitalization of Packaging for IOT
- Printing-based Large Area Electronics
- Layer Stacks Manufactured by Printing
- Printing in New Dimensions (2.5D – 4D Printing)

### Lab2Fab Challenges

- Design and Build of Digital Production Machines
- 3D Printers and Machinery
- Standardization of Materials and Processes
- Material-Machine Interactions and Processes

### Recent Advances in Materials for Printing and Additive Manufacturing

- Toner Materials
- Colloids and Colloidal Suspensions (Particles, Ink Formulation, Functionality)
- Printable Conductors, Semiconductors, and Insulators
- Functionality Optimization through Post-Processing (Drying, Curing, Sintering)
- Functionality Formation in 3D Printing
- Substrates for Print Processes
- Ink-Substrate Interactions
- Environmental Sustainability
- Combinatorial Materials Science using Digital Printing Technologies

### Quality Control of Prints and Objects

- Metrology Tools for Digital Printing
- Printing Systems Optimization
- Performance of Print Products

### Special Outreach Topics

#### Inkjet Printing for Textiles and Nonwovens

- Fabric Design Printing
- Technical Textile Processing by Printing
- Printed Functionalities Integration in Textiles
- Printed Smart Wearables
- Textile-related Ink Developments

#### Inkjet Printing of Decorative Surfaces

- Printed Functionalities Integration on Wallpapers, Décor Papers, and Laminates
- Advanced Digital Wallpaper Printing
- Laminate Décor Paper Printing
- Printing on (non-flat) Rigid Objects

#### Printing of Biological Materials and Pharmaceuticals

- Bio-Printing Techniques
- Hydrogels for Bio Applications
- Living Cell Ink Formulations
- Biomedical Engineering
- Tissue Modeling
- Biological Surface Modification
- Characterization of Bio-printed Objects
- 2D and 3D Pharmaceutical Printing

## Opportunities for Introductions

Details on these special features of the conference will be released over the next few months

- What's New in the Printing Machinery Market?
- Research at the Edge!
- Late Breaking News Session
- Colleague Connection Events
- Keynote Talks
- Conference Exhibit and Demonstration Session

**Paper Abstract Deadline: April 16, 2018**

**Accepted Papers Deadline: July 5, 2018**

[www.imaging.org/print4fab](http://www.imaging.org/print4fab)



Sponsored by the  
Society for Imaging Science and Technology (IS&T) and  
the Imaging Society of Japan (ISJ)



## How to Submit

**Conference Paper Submission:** submit via [www.imaging.org/print4fab](http://www.imaging.org/print4fab)

**Submission Deadline:** April 16, 2018

Submit a technical paper representing original work in the science and/or technology related to digital printing and/or fabrication, to the web address noted above. Submissions should be based on the template provided and must include an extended abstract of approximately 500 words, clearly stating the technical content of the paper, the methods, and conclusions; if appropriate, emphasize what is new compared to previously presented/published results. You will be asked to indicate your preference for giving an oral or an interactive (poster) paper. Abstracts are peer-reviewed; authors will be notified in mid May as to their acceptance. Accepted papers are published in the conference proceedings. **Final papers are due in electronic format by July 5, 2018.** Direct submission inquiries to [print4fab@imaging.org](mailto:print4fab@imaging.org).

### Short Courses and Workshops

The conference offers an extensive array of 2- to 4-hour Short Courses and workshops taught by world-renowned experts on a wide range of subjects related to digital printing and fabrication technologies.

Past classes have included: *Industrial Inkjet: Applications, Challenges, and Considerations*; *2D and 3D Printing Overview*; *Role of Inkjet in Commercial and Industrial Printing*; *Inkjet Pigment and Dispersion Technology*; *Stabilizing Pigments and Dyes*; and *Surface Ink Interactions and Characterization*. In addition to course proposals, we are looking for instructors/experts to offer location-based and application/industry-focused classes or workshops. We are also open to classes with a hands-on, practical nature, and/or non-traditional format.

### Exhibition 2018

State-of-the-art printing products, services, applications, materials, test equipment, and more make up this annual event. Held September 25-26. Early exhibitor deadline: June 1, 2018. Contact Donna Smith ([dsmith@imaging.org](mailto:dsmith@imaging.org)).

### Late Breaking News

A favorite of attendees, this session held at the end of the week, compiles recent success stories on the implementation of digital printing applications into manufacturing lines. Every new successful implementation strengthens the standing of our community and the general perception of digital fabrication. We encourage you to present your success story by contacting [print4fab@imaging.org](mailto:print4fab@imaging.org).

## The Venue: Dresden, Germany

The 34th in IS&T's digital printing (NIP) conference takes place at the Hilton Dresden, in Dresden, the capital of the Free State of Saxony in eastern Germany. Dresden lies on the banks of the Elbe River, close to Berlin and the Czech Republic.

Saxony is home to numerous printing technology-related companies and many fine institutions of higher learning including 17 Fraunhofer, 8 Leibnitz, 6 Max Planck, and 3 Helmholtz research institutes, the Technical Universities of Chemnitz, Dresden, and Freiberg, and print/media-related programs at the universities of applied sciences in Mittweida and Leipzig.

Known as the Jewel Box, because of its gorgeous baroque and rococo city center, Dresden was virtually destroyed by controversial Allied bombings at the end of WWII. The city has been painstakingly restored to its former glory and delights with its ornate architecture, monumental museums, and riverside charm.

In the heart of the old city, just steps from the iconic Frauenkirche Dresden and the Dresden Castle, the Hilton Dresden hosts the 2018 conference. Don't miss the chance to convene with colleagues, learn more about printing for fabrication, and explore this stunning city.

### Hotel Reservation

Hilton Dresden

An der Frauenkirche 5, 01067, Dresden, Germany  
+49-351-86420; +49-351-8642725 (fax)

**Room rate:** €149/night includes wifi, breakfast, and VAT. City tax is not included, but is reimbursable. Double room: €174.

*Rates honored 3 days before/after conference dates based on availability.*

See conference web page for more details.

**To Reserve:** <http://group.hilton.com/ABR-ISandT-2018>

**Reservation Deadline:** July 28, 2018

### Interested in room sharing?

*IS&T has partnered with [conferenceshare.co](http://conferenceshare.co) to help students and others find potential roommates to reduce the cost of lodging. Use of this service is at your discretion; IS&T assume no responsibility for decisions made as a result of using it. Sign up at [conferenceshare.co](http://conferenceshare.co) to connect with each other. The meeting is listed as *Print4Fab 2018* in the "select conference" tab. We appreciate your staying at the conference hotel, as doing so helps us keep registration costs down.*

### Getting there

Dresden International Airport is 10 km from the Hilton. There are direct flights from major German cities, as well as other European cities such as Amsterdam, Moscow, and Zurich. Travelers may want to transit through Frankfurt or to book flights to Berlin or Prague. There are 22 trains/day between Berlin and Dresden, ranging from 1.75 to 2.5 hours. Between Prague and Dresden, there are ~17 trains ranging from 2.5 to 3 hours. There are also buses between the cities.

**Keep up-to-date on the details of this and other meetings!**  
**Join the Printing for Fabrication (Digital Printing / Digital Fabrication / NIP) Group on LinkedIn!**