## The Conference

Join us in Austin, Texas for the 26th International Conference on Digital Printing Technologies and Digital Fabrication 2010!

For 26 years, NIP has been the leading forum for discussion of advances and new directions in non-impact and digital printing technologies. This comprehensive, industry-wide conference includes all aspects of the hardware, materials, software, images, and applications associated with digital printing systems, including drop-on-demand ink jet, wide format ink jet, desktop and continuous ink jet, toner-based electrophotographic printers, production digital printing systems, and thermal printing systems, as well as the engineering capability, optimization, and science involved in these fields.

Since 2005, the Digital Fabrication conference has been exploring the potential of digital printing technologies with sessions on new applications and materials that go well beyond traditional printing. Digital Fabrication techniques have been used for biomedical applications as well as to produce MEMS and new electronic devices. Collocation of these two preeminent meetings gains attendees access to more than 250 papers spanning the topics described in this pamphlet, from commercial/industrial printing and image permanence to 3D printing, printing of biological materials, and printed electronics.

The synergy created by collocation affords leading scientists and engineers the opportunity to discuss overlaps and intersections between the technical areas of imaging, medical research, electronics, and advanced manufacturing technologies.

## **Short Courses**

NIP26 and Digital Fabrication 2010 will offer an extensive array of short courses taught by world-renowned experts on a wide range of subjects related to digital printing technologies. Past classes include Introduction to Digital Fabrication, Printed Electronics, Printing Biomaterials, Digital Fabrication Machinery, Industrial Ink Jet Technology for Printing and Fabrication, and Desktop Ink Jet Products Performance.

Attendees are certain to find short courses that introduce them to new fields and keep them up to speed on the latest developments! Short courses will be published in the Preliminary Program.

Those interested in teaching a short course should contact Short Course Chairs Susan Farnand or James Stasiak (see committee listings for contact information).



Digital
Fabrication
2010

September 19-23, 2010

Austin, Texas

Abstract Deadline: February 21, 2010

General Chair:
Reinhard Baumann
Fraunhofer Einrichtung for Electronic
Nano Systems ENAS

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



NIP<sub>26</sub>

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# CALL FOR PAP

# The Venue

Austin, Texas

Join us in Austin, the capitol of Texas and the "Live Music Capitol of the World!"

NIP26/Digital Fabrication 2010 will be held at the Hilton Austin, located in the heart of downtown and within easy walking distance of many restaurants and live music venues—nearly 200 in all—that pervade the city center. With its wealth of entertainment, lovely river parks, interesting history, and focus on cutting edge technology, it's not surprising that the Austin area was selected as the third "Best Place to Live in the US" in 2009.

Austin is home to a wonderful mix of hospitable locals, scientists, technologists, artists, musicians, and even cowboys, who welcome visitors with warmth and just a touch of eccentricity. Locals have adopted the slogan "Keep Austin Weird"—a motto that plays to the strong individuality on which its citizens pride themselves.

As the state capitol, Austin has a rich history that can be discovered via its cultural institutions and historic buildings. The Harry Ransom Center houses the world's first photograph, a rare Gutenberg bible, the Watergate papers, and 30 million literary manuscripts, while the University of Austin campus houses the Lyndon Baines Johnson Library and Museum. Johnson—or LBJ as he was affectionately known—served as the 36th US president. The Cockrell School of Engineering at the University of Texas at Austin ranks among the best undergraduate engineering programs in the country and the university receives \$400 million in research funding, making it one of the US's leading public research universities.

Samsung Austin Semiconductor and Dell are headquartered here, and many of the nation's top technology companies—such as AT&T, Cisco Systems, Hewlett-Packard Company, Intel, IBM Corporation, and Apple—have a strong corporate presence in the city. They are also some of the region's largest employers.\*

For information on the city, visit www.austintexas.org/visitors/.

Austin-Bergstrom International Airport (AUS) is serviced by nine major airline carriers and is a 15-minute drive from downtown. There are direct flights to Austin from a number of cities, including Atlanta, Baltimore, Chicago, Los Angeles, Newark, New York, and Washington. Visit www.ci.austin.tx.us/austinairport/airlines.htm for more information.

\* Source: Greater Austin Chamber of Commerce

#### NIP<sub>26</sub>

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# **Print and Sample Gallery**

The Print and Sample Gallery provides an up-close, detailed look at the performance capabilities and relative advantages of various printing technologies on paper and traditional media as well as for digital fabrication. Those interested in participating should contact Arved Hübler or Jolke Perelaer (see committee lists for e-mails).

#### TECHNICAL PAPER SUBMISSIONS IN THE FOLLOWING AREAS ARE ENCOURAGED:

#### **NIP TOPICS**

- Advanced and novel imaging systems
- Color science/image processing
- Commercial and industrial printing
- Design for environmental sustainability
- Digital packaging
- Digital printing/quality control instrumentation
- Electronic paper and paper-like displays
- Fusing, curing, and drying
- Image permanence
- Ink jet printing: Materials
- Ink jet printing: Processes
- Media for digital printing
- Photoelectronic imaging materials and devices
- Print and image quality
- Printing systems engineering/optimization
- Production digital printing
- Security and forensic printing
- Textile and fabric printing
- Thermal printing
- Toner-based printing: MaterialsToner-based printing: Processes

# **Special Topic Sessions**

A number of special topic sessions featuring invited presentations by experts in key areas related to digital printing and imaging will survey recent developments and present new contributions. These sessions give conference participants an invaluable opportunity to learn more about emerging and core technologies in these areas:

- Front end and workflow
- High speed ink jet
- Digital printing fulfillment
- Digital biofabrication
- Digital finishing
- Hardware for printing inspection, authentication, and forensics
- Modeling of printing and related processes
- Austin State Lottery: Printing/Logistics/Security
- Printing Technologies: Technical Reviews and News

# **Keynotes**

A highlight of the conference is keynote addresses by leaders in the industry and related scientific fields. Keynotes provide attendees with a broad perspective on industry-wide issues, important technical achievements, and market trends. This year's keynotes will look at high speed ink jet applications; Korea and its impact on the ink jet market; materials for organic photovoltaics; visual information from printing physics to art; and digital archives in Japan.

Papers presented at NIP/DF may also be submitted for publication in an IS&T peerreviewed journal. Contact IS&T for more information.

#### **DIGITAL FABRICATION TOPICS**

- Printed electronics and devices
- Sensors, photovoltaic cells and lighting
- Biomaterials and Pharmaceuticals
- Digital biofabrication
- 2- & 3-D functional printing
- Packaging applications
- Instrumentation
- Laser patterning processes
- Combined DF technologies
- Pre- and post-processes for material deposition
- Process materials and substrates
- Toner-based printed functionalities
- Nano patterning and imprinting
- Dip pen lithography
- Analysis of digitally fabricated patterns and structures
- Industrial and commercial digital fabrication
- Phenomenological studies on DF processes
- DF product quality
- Ink jet processes

# **How to Submit**

Submission Deadline: February 21, 2010 www.imaging.org/IST/newpapers/2010NIP\_DF/authors/

To submit a technical paper representing original work in the science and/or technology related to digital printing or digital fabrication, send the following to the www address listed above:

- An abstract of approximately 200 words clearly stating the technical content of the paper and, if appropriate, emphasizing what is new compared to previously presented/published results
- Complete contact information for author(s): full name(s), company, address, telephone, fax, and email
- 75-word biographical sketch of the principal author
- Preference for oral or interactive presentation
- Preferred session assignment

The full text of accepted papers will be published in the conference proceedings. This text is due in electronic form by **June 30, 2010**. Please direct all submission inquiries to Diana Gonzalez at 703/642-9090, NIP26\_DF2010@imaging.org.

# **Special Panels**

Special panels being planned for NIP26/Digital Fabrication 2010 are:

- Design for Environmental Sustainability
- Functional and Digital Packaging

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# Invitation to Exhibitors

We're expecting more than 500 digital printing and fabrication industry leaders and technical experts to gather in Austin for NIP26/Digital Fabrication 2010. A highlight of the conference, the exhibit features industry-leading companies showcasing state-of-the-art printing products and applications, including materials, inks and toners, papers, films, textiles, and test equipment.

If you would like to exhibit at NIP26/DF2010 please contact Exhibit Chair Jack Flynn (jack.flynn@bakerhughes.com) or IS&T staff liaison Donna Smith (dsmith@imaging.org). The exhibit dates for 2010 are Tuesday, September 21st, and Wednesday, September 22nd. Early exhibitor registration rates are in effect until June 15, 2010!