The Conference

Join us in Minneapolis, Minnesota, for the 27th International Conference on Digital Printing Technologies and Digital Fabrication 2011!

For 27 years, NIP has been the leading forum for discussion of technological advances and new directions in non-impact and digital printing technologies. Researchers from industry and academia learn about and present the latest scientific and technical advances in their fields. These include ink jet printing systems and materials, toner-based electrophotographic systems and materials, thermal printing systems, electronic paper and paper-like displays, advanced and novel imaging systems, media for digital printing, print quality, as well as a special focus on design for environmental sustainability.

This conference is also a place for the industry to discuss and present the latest advances in non-impact printing applications allowing the community to address new and growing markets: web and cloud printing, RIP and pre-press solutions, digital packaging, commercial and industrial printing, high speed ink jet, textile and fabric printing, security and forensic printing, and hardware for printing inspection and authentication among others.

Digital Fabrication is once again collocated with NIP27 and continues to explore the expanding potential of digital printing technologies that go well beyond traditional printing methods. Digital Fabrication techniques are now 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. It also offers attendees greater potential and promise for expanding professional networks and knowledge base.

Print and Sample Gallery

Participation in the Print and Sample Gallery provides a wonderful opportunity for attendees to interact, network, and to see and touch samples that speakers or others have displayed. The 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, allows for a unique exchange of ideas. Those interested in participating should contact Susan Farnand (NIP) or Jolke Perelaer (DF) at NIP_DF@imaging.org.

CALL FOR PAPERS

Digital Fabrication 2011

October 2-6, 2011

◆

Minneapolis, Minnesota

Abstract Deadline: March 6, 2011

www/imaging.org/ist/newpapers/2011NIP_DF/authors

Join the NIP (Digital Printing)/Digital Fabrication Conference group on LinkedIn!

General Chair:
Shinri Sakai
Seiko Epson Corporation

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

NIP27

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The Venue

Minneapolis, Minnesota, the "City of Lakes," located in the heart of North America!

NIP27/Digital Fabrication 2011 will take place at the Hilton Minneapolis, conveniently located in the center of downtown and within easy walking distance of many restaurants, tax-free shopping, theaters, and excellent museums.

Minneapolis—one of the "Twin Cities" along with St. Paul—is located along the banks of the Mississippi River.The city boasts 22 lakes, and many beautiful parks with walking trails. One of the US's cleanest and safest cities, it is home to the famous Mall of America, which has 520 stores, 50 restaurants, and the nation's largest theme park. The Walker Art Center is one of the best contemporary art museums in the country and more than 400 artists live in the Northeast Minneapolis Art District. In fact, Minneapolis is second to New York in total number of museums, live theaters, art exhibits, and music venues in the US.

Minneapolis is also home to The University of Minnesota, which ranks among the top ten public research institutions in the US and seventh in total research. For more information on the city, visit www.minneapolis.org/.

The Minneapolis-St. Paul International Airport (MSP) is 12 miles from the hotel—a 20 minute drive. Minneapolis is less than three hours flying time from most US cities with nonstop flights from a number of US and international cities, including Atlanta, Chicago, London, Los Angeles, Newark, New York (JFK), Paris, Tokyo, and Washington. More information can be found at www.mspairport.com/airlines.aspx.

Invitation to Exhibitors

We're expecting more than 500 digital printing and fabrication industry leaders and technical experts to gather in Minneapolis for NIP27/Digital Fabrication 2011. 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 please contact Exhibit Chair Jack Flynn (jack.flynn@bakerhughes.com) or IS&T staff liaison Donna Smith (dsmith@imaging.org). The exhibit will run October 4 and 5. Early exhibitor registration rates are in effect until June 15, 2011!

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Short Courses

NIP27 and Digital Fabrication 2011 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 Devon Strain or Thomas Boland via NIP_DF@imaging.org.

TECHNICAL PAPER SUBMISSIONS IN THE FOLLOWING AREAS ARE ENCOURAGED:

NIP TOPICS

NIP CORE TOPICS (core science and technologies that underlie non-impact digital printing, where researchers from industry and academia can learn about, and present, the latest scientific and technical advances in their fields):

- Advanced and novel imaging systems
- Color science/image processing
- Design for environmental sustainability
- Electronic paper and paper-like displays
- Fusing, curing, and drying
- Image permanence
- Ink jet printing: Materials
- Ink jet printing: Processes
- (Mathematical) Modeling of printing and related processes
- Media for digital printing
- Photoelectronic imaging materials and devices
- Print and image quality
- Printing systems engineering/optimization
- Thermal printing
- Toner-based printing: Materials
- Toner-based printing: Processes

NIP APPLICATIONS (applications of non-impact printing, highlighting advances in performance and economics as well as expanding technical capabilities that allow digital printing to address new market opportunities and spaces):

- Commercial and industrial printing
- Digital finishing
- Digital packaging
- Digital printing fulfillment
- High speed ink jet
- Hardware for printing inspection authentication and forensics
- Printing technologies: Technical reviews and new introductions
- Printing services and solutions
- Security and forensic printing
- Textile and fabric printing

DIGITAL FABRICATION TOPICS

- Printed electronics and devices
- Sensors, photovoltaic cells, and lighting
- Bio- and pharma-materials
- Digital biofabrication
- 2- & 3-D functional printing
- Smart packaging applications
- Industrial and commercial digital fabrication
- Ink jet processes
- Laser patterning processes
- Nano patterning and imprinting
- Dip pen lithography
- Combined digital fabrication techniques/hybrid technologies
- Pre- and post-processes for material deposition
- Toner-based printed functionalities
- Process materials and substrates
- Instrumentation
- Analysis of digitally fabricated patterns and structures
- Phenomenological studies on digital fabrication processes
- DF product quality
- Issues in transfer from lab to fab

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 digital packaging's current state and future trends from a packaging manufacturer; and printing services and solutions overview.

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:

- Digital fabrication enabled smart packaging (in-line printing of RFID antennas on cardboard, smart labels for authentication of high value consumables, printable sensors or transducers for pharmaceutical packaging, and printable sensors on food packaging)
- Design for environmental sustainability
- Digital packaging
- Security and forensic printing
- Hardware for printing inspection authentication and forensics
- Modeling for printing and related processes
- Printing technologies: technical reviews and new introductions
- Printing services and solutions

Panel Discussions

A special Technology and Application Roundtable panel is being planned for NIP27/Digital Fabrication 2011.

Keep up-to-date on the details of these meetings! Join the NIP (Digital Printing)/Digital Fabrication Conference Group on LinkedIn!

Digital Fabrication 2011 Conference Committee

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Advisory Chair
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Fraunhofer Institute for Electronic Nano Systems ENAS

How to Submit

Submission Deadline: March 6, 2011

www.imaging.org/IST/newpapers/2011NIP_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
- up to 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 **July 5, 2011**. Please direct all submission inquiries to Diana Gonzalez at 703/642-9090, NIP_DF@imaging.org.

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