Conference Committee

General Chair

James W. Stasiak, HP Inc.

Executive Program Chair

Wolfgang Schmidt, Schoeller Technocell GmbH & Co. KG

Program Chairs Asia & Oceania

Kve-Si Kwon. Soonchunhyang University Teruaki Mitsuya, Ricoh Company, Ltd. Norio Nagayama, Ricoh

The Americas

Company, Ltd.

Devin Mourey, HP Inc.

Europe/Middle East

Ingo Reinhold, Xaar Patrick J. Smith, University of Sheffield

Late Breaking Technology **News Chair**

Werner Zapka, Xaar

JIST-first/Print4Fab Guest **Editors**

Kye-Si Kwon, Soonchunhyang University Branka Lozo, University of Zagreb

Short Course Chair

Michael Willis, Pivotal Resources Ltd.

Publicity Chairs

Shuichi Maeda, Tokai University Jolke Perelger, Wiley-VCH Verlaa GmbH & Co. KGaA Dinesh Tyagi, Lexmark International, Inc.

Audio-Visual Chair

Steven V. Korol. **Evolutionary Technology**

Student/YP Events Chair

Anna McLeland, Lexmark International, Inc.

Steering Committee Chair

Alan Hodgson, Alan Hodgson Consulting Ltd.

for Fabrication 2017

Society for Imaging Science and Technology 7003 Kilworth Lane 22151 USA ; 703/642-9094 (fax)

33rd International Conference on Digital Printing Technologies (NIP)

Printing for Fabrication

Materials, Applications, and Processes

November 5-9, 2017 Denver, Colorado, USA



General Chair: James W. Stasiak, HP Inc.

JIST-first Deadline: April 17, 2017 Paper Abstract Deadline: May 14, 2017 Accepted Papers Deadline: July 31, 2017

www.imaging.org/print4fab



Society for Imaging Science and Technology (IS&T) and the Imaging Society of Japan (ISI)

The Venue: Denver, Colorado

The 33rd in IS&T's NIP digital printing series—Printing for Fabrication—takes place in Denver, The Mile High City, and state capitol of Colorado. The conference takes place at the Grand Hyatt Denver hotel, located in downtown Denver, one block from the 16th Street Mall, a tree-lined. shopping- and restaurant-filled, pedestrian promenade that runs through the center of downtown. A free shuttle runs up and down the mile-long Mall seven days a week.

With its stunning backdrop of the Rocky Mountains, Denver has a rich history; "cowboy and Indian" tales, the American gold rush, and building the transcontinental railroad are part of the lore and fabric of its past. An in-depth look at this history can be found at the Denver Art Museum housing one of the largest collections of Native American art works in the world. Other museums include the "unsinkable" Molly Brown House Museum: the quirky, but wonderful Kirkland Museum; the Denver Museum of Science and Nature; and Wings Over the Rockies Air and Space Museum. The spectacular Rocky Mountain National Park and numerous ski areas are within a two-hour drive.

Denver is known for more than 200 different locally brewed beers—and the world's largest beer festival. Area specialties to enjoy with the beer are Southwestern dishes, buffalo, and Colorado beef and lamb.

Many corporations call Denver and it surroundings home such as Ball Aerospace & Technologies Corp., Lockheed Martin, Raytheon, IBM, and Sun Microsystems; others such as HP Inc. and Lexmark have campuses here.

Hotel Reservation

To make a hotel reservation at our special rate of \$199 go to https://aws.passkey.com/go/P4F17

Getting there

Denver Int'l Airport (DEN) is 23 miles from downtown. It serves 187 destinations including direct flights from Chicago, Frankfurt, London, Minneapolis, New York, Newark, Philadelphia, Phoenix, Portland, San Francisco, Seattle, Tokyo, Toronto, Vancouver, and Washington, D.C. For more information visit www.flydenver.com/

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

SUBMISSIONS IN THE FOLLOWING AREAS ARE ENCOURAGED:

Printing and Fabrication Principles and Processes

- Hybrid Technologies
- Laser Imaging and Patterning
- Aerosol-based Processes
- Finishing and Converting
- Metrology Tools for Digital Printing Processes
- Performance of Print Products (quality, robustness, permanence, functionality)
- Single-pass Printing
- Toner-based Processes
- Inkjet-based Processes
- Thermal Printing

Applications

- 3D Printing/Additive Manufacturing
- Industrial Digital Printing
- Bio-Printing
- Large Area Electronics organic and inorganic printed materials
- Electronic Paper and Paper-like Displays
- Smart Packaging & Internet of Things
- Security Printing
- Textile Printing graphics and wearable smart devices

Special Topics

- Pharmaceutical 3D Printing
- Computational Fabrication

Physics and Chemistry of Materials

- 2D Materials
- Colloids and Colloidal Suspensions (toner, particles, ink formulation, functionality)
- Substrates for Print Processes
- Ink-Substrate Interactions
- Process Materials Machine Interactions
- Metrology for Printed Materials
- Environmental Sustainability

Lab2Fab

- Design/Build of Digital Production Machines
- Standardization

Workflow

- Printing Services and Solutions
- RIP and Pre-Press Solutions; CAM for Digital Production
- Printing Systems Optimization
- Custom Printing and Print Ordering

Short Courses and Workshops

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

Past classes have included: Introduction to Digital Fabrication, Printed Electronics, Printing of Biomaterials, Industrial Ink Jet Technology for Printing and Fabrication, and Role of Ink Jet in Commercial and Industrial Printing. 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 looking for classes with a hands-on, practical nature, and/or untraditional format.

Short courses are published in the Preliminary Program. Those interested in offering a workshop or course should send a proposal to NIP@imaging.org by May 1, 2017.

Late Breaking News & Trends Session

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. Please, contact NIP@imaging.org to do so.

Exhibition Opportunity

A highlight of the conference, the exhibit features industry-leading companies and their state-of-the-art printing products and applications, including materials, inks/toners, papers, films, textiles, and test equipment. The exhibit runs November 7-8. Early exhibitor registration rates are in effect until August 1, 2017. Contact Donna Smith (dsmith@imaging.org).

How to Submit Please read the submission criteria carefully as it has changed from past years.

Option 1: Journal of Imaging Science and Technology (JIST-first) Submission: submit via jist.msubmit.net Submission Deadline: April 17, 2017

(NOTE: All papers submitted via Option #1 will automatically also be submitted to the conference program committee for review per Option #2.) Submit a complete JIST manuscript of original work in the related science and/or technology to the web address noted above; under manuscript type, select: JIST-first-Printing for Fabrication 2017. Prior to submission, pay close attention to the Author Guidelines www.imaging.org/JIST. Authors will be notified by the end of May as to status. Accepted papers will be included in the conference oral presentation program. Rejected papers will be automatically sent to the program committee for review and inclusion in the Printing for Fabrication program unless the author specifies otherwise.

Option 2: Conference Paper Submission: submit via www.imaging.org/print4fab Submission Deadline: May 14, 2017

Submit a technical paper representing original work in the science and/or technology related to digital printing or fabrication, to the conference paper 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 paper. Abstracts are peer-reviewed; authors will be notified in early June as to acceptance. Accepted papers (4-6 pages in length) are published in the conference proceedings. Final papers are due in electronic form by July 31, 2017. Direct submission inquiries to Diana Gonzalez at 703/642-9090, NIP@imaging.org.

Special Topic Sessions

Following on the highly successful Special Sessions on Digital Biology (2013), 3D Printing (2014), Nanoprinting (2015), and Integrating 2D (i.e., graphene) Electronic Materials into Digital Fabrication, the 2017 conference will feature special sessions on **Pharmaceutical 3D Printing** and **Computational Fabrication**. We invite papers in these areas.

Keynote Presentations

Keynote presentations given by leaders in the industry and related scientific fields are a highlight of the conference. These talks provide attendees with broader context on industry-wide issues, important technical achievements, and/or international market trends. The 2017 keynotes will focus on the special topics noted above, as well as the development of new techniques for traditional processes.



Collocation with TDPF

IS&T and The Royal Photographic Society are joining to present the eighth International Symposium on Technologies for Digital Print Fulfillment (TDPF). TDPF 2017 will have a special session on photobooks, as well as look at the technologies that drive the digital photography ecosystem, from capture to fulfillment. Plans are being made to tour local photographic archives.

Keep up-to-date on the details of these meetings!

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