



1st DIGITAL ELECTRONICS MATERIALS DEPOSITION CONFERENCE

October 14-16, 2002

and

6th Annual DIGITAL PRINTING OF TEXTILES CONFERENCE

October 16-18, 2002

Wyndham Palm Springs Hotel
Palm Springs, California

1st Digital Electronic Materials Deposition Conference

The **1st Digital Electronic Materials Deposition Conference** is designed to bring together leaders in the area of digital electronic materials deposition. With the multitude of electronic devices being fabricated coupled with increased pressure to reduce size, increase circuit density & functionality and decrease cost; digital electronic materials deposition methodologies are rapidly evolving. Electronic materials deposition offers an attractive value proposition that can be implemented in the fabrication of a variety of devices and components. Deposition technologies such as ink jet printing, syringe dispense, micro-stamp and aerosol jet offer unique solutions to the electronics industry where high-speed, re-configurable, roll-to-roll compatible and low cost processing need to be realized. A host of organizations are developing both materials and deposition technologies in this area and commercialization is being realized. This unique conference program, the only one of its kind to date, will provide tool developers, materials developers, integrators and end-use device manufacturers the opportunity to meet in one place to assess this rapidly evolving field, which may well be one of the most important enablers for the continued advancement of the electronics industry.

Co-Chairmen

Dr. James Caruso, Superior MicroPowders
Dr. Ross N. Mills, imaging Technology international

Speakers

Dr. Masahiko Ando, Hitachi Research Lab
Dr. Phil Bentley, Conductive Inkjet Technology
Giles Branthwaite, Avecia
Olivier Brunet, Gemplus
Dr. Linda Creagh, Spectra
Dr. Michael T. Duignan, Potomac Laser
Chuck Edwards, Litrex
Dr. Alan Hudd, Xennia Technology
Dr. Bruce King, Optomec
Dr. Toivo Kodas, Superior MicroPowders
Thomas McLean, Avecia
Dr. John Mills, Plastic Logic
Bob Reed, MicroPen
J. Randolph Sanders, Torrey Pines Research
Dr. James Sheats, Rolltronics

6th Annual Digital Printing of Textiles Conference

Digital printing of textiles is an application that presents both tremendous opportunities and significant challenges for digital printing technologies. The current worldwide production of printed textile fabric is approximately 34 billion square yards and is dominated by rotary screen printing. During the past five years, the textile printing industry has expressed great interest in using digital printing technologies in the design and sampling process. And now, digital printing solutions are evolving to enable short run production printing to meet industry requirements. Digital printing advantages over conventional printing are significant: quick turn-around, efficient set-up, lower costs and increased flexibility. However, many technical and industry infrastructure challenges must be overcome for digital printing to achieve significant market penetration. This unique conference program will address the technology developments, standards issues, applications requirements, user experiences and other critical issues in the ongoing digital textile printing evolution. This **6th Annual Digital Printing of Textiles Conference** provides a unique opportunity to learn about the latest developments in digital textile printing as well as the application requirements and current experiences in this exciting application area.

Chairman

Mark Hanley, I. T. Strategies

Speakers

Howard Baldwin, Spectra
Ronald Beard, DuPont
Bill Grier, President, Beta Management
Dr. Nicholas Hellmuth, FLAAR
Dr. Alan Hudd, Xennia Technology
Kerry Maguire King, TC²
Prof. Dave Lewis, Lumenia Technology
Lee Newsom, Color Textiles
Stewart Partridge, Web Consulting
Teri Ross, techexchange.com
Alison Starkweather, Lyson
Alan D. Thompson, Flag Industry Focus
Mike Ware, Wasatch

WELCOME TO IMI'S OCTOBER 2002 DIGITAL PRINTING CONFERENCES

Information Management Institute, Inc. is pleased to present two outstanding and timely programs for its Fall conference series. The **1st Digital Electronic Materials Deposition Conference** explores the huge potential impact of digital electronic materials deposition technologies on the future of the electronics industry. Major developments and key insights into the future of digital electronic materials deposition will be addressed by industry leaders. The **6th Annual Digital Printing of Textiles Conference** will address the latest development and innovations as digital printing continues its evolution into the textile applications. Industry leaders will explore what is necessary for digital printing to establish stronger foothold in the textile industry. The relationship of the domestic U.S. textile industry to the growing Asian textile industry is an important element for the future and industry experts will report and what other parts of the world are doing to implement digital textile printing.

If the future of digital printing and the resultant opportunities are important to you, we urge you not to miss these exciting and timely conference programs which explore two of the more dynamic applications and market sectors.

IMI's conference programs have the reputation of offering the best value in the industry with competitive registration fees, discounts for multiple registrations, extensive networking opportunities at our inclusive breaks, lunches and receptions. Additionally, all conference registrants are welcome to display literature and products in our display area on a complimentary basis and to make a five minute presentation during our popular Suppliers' Forum session.

We look forward to seeing you in Palm Springs.

Al Keene
President
IMI, Inc.

PRODUCT DEMONSTRATIONS – FREE DISPLAYS

Printer and other product demonstrations/displays by both conference speakers and registrants are encouraged. IMI will cooperate with all interested parties to provide appropriate space so products can be displayed and demonstrated during the conference breaks. There is no charge in addition to the conference registration fee to have a display table. Interested companies should contact Al Keene at IMI to ensure that proper arrangements are made for product displays and demonstrations.

Information Management Institute

Information Management Institute, Inc is a leading worldwide sponsor of conferences designed to assist the digital printing industry in understanding technology developments, markets and applications requirements. IMI conferences offer a unique opportunity for leading hardware, consumables, software and user companies representatives to network and develop a more comprehensive understanding of current as well as future developments in the digital printing industry. Since 1990, IMI has held over 175 programs and each year over 2,000 technical, marketing and management personnel from over 600 companies worldwide attend IMI programs.

IMI conference programs are designed to enable attendee to obtain the latest technical, market and application information while allowing time to network with other attendees in a time and cost efficient manner. Attendance at an IMI conference enables attendees to meet with the digital industry's leading experts in a single location over a short period of time thus maximizing information transfer efficiency.

IMI is dedicated to satisfying the information needs of the digital printing industry and publishes an annual **Digital Printing Industry Directory** which provides information on over 450 hardware and supplies manufacturing companies plus over 100 consultants in the industry.

Details on all of IMI's activities can be found on our web site or by contacting us:

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Email: imi@tdstelme.net Web Site: <http://imi.maine.com>

LOCATION

The Wyndham Palm Springs Hotel is located in the heart of Palm Springs just three blocks from fashionable Palm Canyon Drive, Palm Springs Desert Museum and numerous downtown shops and restaurants. Palm Springs is nestled snugly at the base of 11,000 foot Mt. Jacinto (which can be accessed via the famous Palm Springs' Aerial Tramway in a modern revolving cable car).

Recreational amenities at the hotel are focused in a beautifully landscaped 24,000 square foot courtyard with large pool, spas, sauna, fitness facility and outdoor dining. Palm Springs is served by several major airlines via the Palm Springs International Airport, located just 1.5 miles from the Wyndham Palm Springs Hotel. Complimentary hotel shuttle service is included with the group room rate – Call 760-322-6000 from baggage claim for pick up service.

The Ontario International Airport, located in Ontario, California also offers excellent airline connections throughout the U.S. and is about a one hour drive from Palm Springs.

The Wyndham Palm Springs Hotel plus the City of Palm Springs and the surrounding area provide an excellent opportunity to extend your conference attendance into a memorable vacation experience. Dress for the **1st Digital Electronic Materials Deposition Conference** and the **6th Annual Digital Printing of Textiles Conference** will be casual.

The Wyndham Palm Springs Hotel address is:

Wyndham Palm Springs Hotel
888 Tahquitz Canyon Way
Palm Springs, California 92262
Phone: +1-760-322-6000
Fax: +1-760-325-0130

WYNDHAM PALM SPRINGS HOTEL RESERVATIONS

The **1st Digital Electronic Materials Deposition Conference** and the **6th Annual Digital Printing of Textiles Conference** are being held at the Wyndham Palm Springs Hotel conveniently located near the center of Palm Springs, California.

Hotel reservations are the responsibility of each meeting registrant. To receive the special meeting rate of \$134 for single or double occupancy, you must identify yourself as a registrant to **IMI's 1st Digital Electronic Materials Deposition Conference or 6th Annual Digital Printing of Textiles Conference**. **Early booking is advised** as the reduced rate is guaranteed only until September 23, 2002. Phone the hotel reservation department at +1-800-996-3426 to make hotel reservations.

Benefits of IMI Conference Attendance

Attendees at IMI conference programs are able to hear presentations covering the latest technology developments, market and applications expansion and the key elements of successful business development in the digital printing industry.

Information obtained from the conference presentation and networking with other conference participants often provide critical insights required to expand business, solve technical problems, secure new markets, etc. in this dynamic and rapidly changing industry. Other conference benefits include:

- Participate with the digital printing industry's "movers and shakers" in conference programs focused on the development and implementation of digital printing for key growth markets and applications
- Establish personal contacts with leading technologists, managers and innovators in the digital printing industry
- Obtain critical insights into technological, application and market developments essential to your company's decisionmaking process relative to digital printing and its role in the overall marketplace and your company's future
- Display your products via IMI's complimentary tabletop display policy
- Give a five-minute presentation on your products, technology, capabilities, services, etc. during the popular Supplier's Forum
- Hear industry experts' projections for digital printing market opportunities in traditional and growth markets



IMI's UPCOMING PROGRAMS

1st Digital Electronic Materials Deposition Conference

October 14-16, 2002
Wyndham Palm Springs Hotel
Palm Springs, California

6th Annual Digital Printing Of Textiles Conference

October 16-18, 2002
Wyndham Palm Springs Hotel
Palm Springs, California

The Ink Jet Academy

October 27-28, 2002
Sheraton Lisboa Hotel & Towers
Lisbon, Portugal

10th Annual European Ink Jet Printing Conference

October 28-30, 2002
Sheraton Lisboa Hotel & Towers
Lisbon, Portugal

5th Annual Digital, Industrial & Decorative Printing Conference

October 30-November 1, 2002
Sheraton Lisboa Hotel & Towers
Lisbon, Portugal

11th Annual Laser Printing Conference

January 27-29, 2003
Chaparral Suites Hotel
Scottsdale, Arizona

6th Annual Toner & Powder Coatings Conference

January 29-31, 2003
Chaparral Suites Hotel
Scottsdale, Arizona

The Ink Jet Academy

February 3-4, 2003
Chaparral Suites Hotel
Scottsdale, Arizona

Ink Jet Printing Developers Conference 2003

February 5-7, 2003
Chaparral Suites Hotel
Scottsdale, Arizona

SPECIAL NOTICE WORLDWIDE PRINTER AND SUPPLIES MARKET REPORT TO BE PROVIDED TO ALL CONFERENCE REGISTRANTS

Information Management Institute, Inc. is pleased to announce that it has commissioned I T Strategies of Hanover, Massachusetts to prepare a confidential study report entitled "Worldwide Printer and Supplies Market Report" for distribution to all registrants to IMI's programs.

This exclusive market report is updated on an ongoing basis and provides a source of market information based on a consistent methodology and reporting structure. The report authors, I T Strategies, generate this report from their worldwide model of the printer industry.

All registrants to the **1st Digital Electronic Materials Deposition Conference** on October 14-16, 2002 and the **6th Annual Digital Printing of Textiles Conference** on October 16-18, 2002 at Wyndham Palm Springs Hotel will receive a complimentary copy of the latest edition of the "Worldwide Printer and Supplies Market Report."

2nd Annual RFID Conference

Winter, 2003
Dates & Location to be Announced

13th Annual Tag, Ticket & Label Printing Conference

Winter, 2003
Dates & Location to be Announced

3rd Annual Digital Asset Management Conference

Winter, 2003
Dates & Location to be Announced

10th Annual Industrial Scale Digital Printing Press Conference

Winter, 2003
Dates & Location to be Announced

14th Annual Thermal Printing Conference

April 28-30, 2003
The Sunburst Resort
Scottsdale, Arizona

2nd Annual Photographic Quality Digital Printing Conference

April 30-May 2, 2003
The Sunburst Resort
Scottsdale, Arizona

12th Annual Ink Jet Printing Conference

May 5-7, 2003
The Sunburst Resort
Scottsdale, Arizona

10th Annual Digital Printing Supplies Conference

May 7-9, 2003
The Sunburst Resort
Scottsdale, Arizona

Digital Printing Summer School

Summer, 2003
Cambridge, England
Courses Offered & Exact Dates to be Announced

Digital Printing Summer Camp

Summer, 2003
Courses Offered, Location & Dates to be Announced

Monday, October 14, 2002

11:00 a.m. - 5:00 p.m.

Registration

1:00 p.m. **Opening Session – Market & Implementation Overview**

WELCOME AND INTRODUCTIONS

Alvin G. Keene, President, Information Management Institute, Inc., Kingfield, Maine

MARKETS FOR PLASTIC ELECTRONICS

Thomas McLean, Avecia, Manchester, England

- Why Bother With Plastic Electronics?
- What Markets Will Plastic Electronics Create & Disrupt?
- What Has To Happen To Bring Those Markets About?
- Which Digital Imaging Technologies Will Work For Plastic Electronics?
- What Does The Road Map Look Like To Get There?

INK JET FOR ELECTRONIC MATERIALS DEPOSITION AND PRINTING

Dr. Ross N. Mills, President, imaging Technology international Corporation, Boulder, Colorado

- Electronic Applications
- Ink Jet Technology
- "Jettability" Requirements
- Available Printheads
- Deposition & Printing
- Challenges For Ink Jet

THE FEASIBILITY OF USING ELECTROSTATIC TECHNOLOGY FOR DEPOSITION OF CONDUCTIVE MATERIALS

J. Randolph Sanders, President, Torrey Pines Research, Carlsbad, California

- What Are Conductive Materials?
- What Electrostatic Deposition Technologies Currently Exist?
 - Overview
 - Which Are Suitable For Handling Conductive Materials
 - Advantages/Disadvantages Of Each
 - Potential Applications
- Where Is The Technology Headed?

MANUFACTURING FLAT PANEL DISPLAYS (FPDs) WITH DROP ON DEMAND (DOD) INK JET PRINTHEADS

Dr. Linda Creagh, Business Development Director, Spectra, Inc., Lebanon, New Hampshire

- Introduction To FPDs Based on Polymeric Light Emitting Devices (PLED)
- Requirements For Digital Manufacture Of FPDs
- Design Of DOD Printheads For Display Manufacture
- PLED Plus Ink Jet Works!
- Moving From Laboratory To Factory

5:30 p.m.

Reception

Tuesday, October 15, 2002

7:00 a.m.

Continental Breakfast

8:00 a.m.

Alternative Electronic Materials Deposition Technologies

MASKLESS MESOSCALE MATERIAL DEPOSITION™ (M³D™) FOR DIRECT-WRITE ELECTRONICS

Dr. Bruce King, M3D Team Leader, Optomec, Inc., Albuquerque, New Mexico

- M³D™ : Method For Writing Fine Feature Size Electronic Circuits Directly From CAD File Without Mask Sets
 - Utilizes Flow Guidance Technology: Co-Flow Gas Used To Focus Stream Of Atomized Materials
 - Liquid Source Material Is Atomized & Entrained In Gas Stream
 - Enables Patterns To Be Written Over Existing Structures, Across Curved Surfaces & Into Channels/Vias
 - Deposited Materials Typically Post Treated Thermally (Or With Laser) To Attain Final Electronic/Mechanical Properties & Adhesion
- Process Features
 - High Resolution Deposition – Typically 25-50 Microns
 - Conformal Deposition
 - Low Temperature Substrate Compatibility
 - Ability To Produce Conductors, Resistors & Dielectrics

LASER DIRECT-WRITE DEPOSITION AND MICROMACHINING FOR FABRICATION OF ELECTRONIC CIRCUITS

Dr. Michael T. Duignan, Vice President Research & Development, Potomac Laser, Lanham, Maryland

- New Laser Sources & High Speed Direct-Write Techniques Enable Manufacturing Of Electronic Circuits & Components
- New Processes Which Permit Fabrication Of Microelectronic Components Using A Laser Direct-Write Process
- Rapid Maskless Patterning Of Variety Of Materials: Conducting Metals, Dielectrics & Resistor Compositions
- Minimum Feature Size Of The Order Of 10 Microns (0.0004")
- Pattern Layers On Polymers, Glasses, Ceramics & Composites
- Approach Employs Laser Forward Transfer Technique To Transfer Directly From Carrier Ribbon To Receiver Substrate
- When Carrier Ribbon Is Removed, UV Laser Based Direct-Write Machine Functions As Complete Micromachining Workstation
- Combination Of Direct Additive & Subtractive Processes Results In Powerful Approach To Flexible Manufacturing
- Demonstrated Fabrication Of Sophisticated Passive LCR Bandpass Filter Designed To Operate Near 1 GHz
 - Laminated Multilayer Device Fabricated On Polyimide Substrate
 - Device Contains Embedded Resistors, Capacitors & Inductors
 - Interlayer Connections Created Through Laser Drilled Vias
 - Processing Temperatures Did Not Exceed 350°C
 - No Masks, Resists, Vacuum Deposition Or Electroplating Were Used

DEPOSITION OF THICK FILM INKS (AND OTHER MATERIALS) USING SYRINGE TECHNIQUES

Bob Reed, General Manager, MicroPen Division of OhmCraft, Inc. Honeoye Falls, New York

- Comparison Of Positive Displacement/Syringe Method Of Materials Deposition With Other Dispensing Methods
- Positive Displacement/Syringe Improvements Over Past 2-3 Years: Ink Materials & Equipment
- Problems To Be Overcome To Create Repeatable Ultra Fine Depositions

Visit IMI's Web Site <http://imi.maine.com> for information on all upcoming programs plus IMI's Other Activities

- **Annual Digital Printing Industry Directory**
 - Hardware & Supplies Manufacturers
 - Consultants
- **Toner Research Services Patent Publications**
- **Toner Research Services Imaging Chemicals Newsletter**
- **Consultants Network**

TERIALS DEPOSITION CONFERENCE

THE ROLE INDUSTRIAL INK JET CAN PLAY IN LOW COST ELECTRONICS AND DISPLAY MANUFACTURING

Chuck Edwards, President, Litrex, Pleasanton, California

- Architecture & System Requirements For Clean Room Compatible Industrial Ink Jet Systems Versus Graphics Ink Jet Systems
- Current LCD and OLED Ink Jet Manufacturing Processes & Materials Under Development. These include Ink Jet Printing Of Pedot, Color & Monochrome LEPs (Light Emitting Polymers), Color Filters, PI, Etc.
- Flat Panel Displays (FPDs) From Low Resolution Passive Cell Phones To High Resolution LTPS Monitors & TVs: What Are The Limitations, Yields & Capabilities We Can Expect From Industrial Ink Jet?
- Other FPD & Electronics Technologies Like PCB Interconnect, Embedded Passives & Polymer Transistors Where Ink Jet Promises To Reduce Costs & Simplify Manufacturing
- "Disposable" Displays & Electronics: What Is The Future Of Industrial Ink Jet & Materials?

12:00 Noon

Luncheon

1:30 p.m.

Materials Deposition

CHALLENGES IN THE FORMULATION OF ELECTRONIC MATERIALS SUITABLE FOR DIGITAL DEPOSITION

Dr. Toivo T. Kodas, Vice President Technology, Superior MicroPowders, Albuquerque, New Mexico

- Critical Materials Needs For Digital Deposition Technologies: Ink Jet, Aerosol Jet, Laser Transfer & MicroSyringe
- Shortcomings Of Traditional Materials Technologies
- Key Materials Parameters For Successful Digital Deposition
- Development Of Digital Deposition Specific Electronic Materials

INK JET PRINTING METALS WITH HIGH ELECTRICAL CONDUCTIVITY

Dr. Alan Hudd, Managing Director, Xennia Technology and Dr. Phil Bentley, Senior Scientist, Conductive Inkjet Technology Ltd., Royston, Hertfordshire, England

- Challenges & Requirements To Ink Jet Print Highly Conductive Materials
- Properties & Characteristics Needed for Ink Jet Printing
- Dedicated Initiative To Solve Problems For A Variety Of Electronics Applications
- Introducing Conductive Inkjet Technology Ltd.
- Novel Approaches To Create Robust & Accurate Solutions
- Application Performance Achievements

INK JET PRINTED CONDUCTORS AS INTERCONNECTS

Olivier Brunet, R&D Engineer, Gemplus, Gemenos, France

- Promise Of Ink Jet For Next Generation Of Low Cost Interconnection Technology Opens New Opportunities To:
 - Interconnect Very Thin (<25 μm) Chips
 - Enable Very Thin & Flexible Packaging For Smart Cards/Labels
- Proven In Smart Card Area-Next Target Is Conductive Line Printing
- Parameters & Criteria For Ink Jet Printhead
 - Drop Fluid Ejection Possibilities
 - Available Ink Technologies
 - Conductivity
 - Final Line Deposition Perspective
- Potential To Replace Wire Bonding Interconnections With Conductive Line Deposition

SUPPLIER'S FORUM

5 Minute Presentations Related To Digital Electronic Materials Deposition Product or Service Capabilities: Open to all Conference Registrants

5:30 p.m.

Reception

Wednesday, October 16, 2002

7:00 a.m.

Continental Breakfast

8:00 a.m.

Commercial Successes, User Experiences & Needs

INK JET PRINTING FOR CIRCUIT BOARD MANUFACTURE

Giles Branthwaite, Business Development, Avicia Ink Jet Printing Materials, Manchester, England

- How Can Ink Jet Add Value To The PCB Industry?
- What Technological Development Issues Result?
- When Can We Expect These Issues To Be Overcome?
- What Other Markets Could This Technology Enter?

THE POWER OF ELECTRONICS + THE PERVASIVENESS OF PRINTING

Dr. John Mills, Vice President Engineering, Plastic Logic Limited, Cambridge, England

- Plastics Electronics Technology: New Field Recognized As A Disruptive Technology
- Plastic Logic
 - Spin Out From Cambridge University's Cavendish Laboratory
 - Raised Over \$12 Million To Develop/Commercialize Patented Technology
 - International Collaboration With Dow Chemical & Seiko Epson
- Printing Transistors & Active Electronic Circuits From Soluble Plastics Using Ink Jet Printing
- Techniques & Materials Used For Solution Deposition
- Technology/Applications Road Map
- Potential Collaboration Opportunities

DIGITAL ELECTRONIC MATERIALS DEPOSITION FOR FLAT PANEL DISPLAY MANUFACTURE

Dr. Masahiko Ando, Senior Researcher, Hitachi Research Laboratory, Department of Imaging Devices Research, Ibaraki-ken, Japan

- Typical Specifications & manufacturing processes Of Flat Panel Display Technologies
- LCD, PDP, OLED, etc. Technologies
- Digital Electronic Materials Deposition Technologies: Pattern Resolution, Process Temperature, Electrical & Mechanical properties, Etc.

DEPOSITION AND PATTERNING ISSUES IN ROLL-TO-ROLL MANUFACTURING OF MICROELECTRONICS

Dr. James Sheats, Vice President of Technology, Rolltronics, Menlo Park, California

- Roll-To-Roll Deposition Industry: Vacuum & Fluid
- Roll-To-Roll Patterning Processes
- Needs Of Emerging Large Area, Low Cost Electronics Field
- R & D Challenges And Opportunities For Digital Deposition

12:00 Noon

Closing Luncheon & Adjournment

Wednesday, October 16, 2002

10:00 a.m. - 5:00 p.m.

Registration

Beta Management Team Tour Demonstration Plant Tour

1:00 p.m. Beta Management Team Tour: Transportation Departs Hotel

Group transportation will be provided from the Wyndham Palm Springs Hotel to Beta Management Team's Production Speed Digital Fabric Printing Demonstration Plant in Ontario, California. This facility is the demonstration plant for BMT's ZIP (Zero Inventory Production) manufacturing strategies and has been commercially producing digital printed textile products for over a year. Additional information on the facility and BMT's systems can be obtained from IMI's web site at <http://imi.maine.com>

2:00 p.m. Beta Management Team Tour Begins: Ontario, California

4:00 p.m. Beta Management Team Tour: Transportation Departs BMT

5:00 p.m. Opening Session – Market Overview

WELCOME AND INTRODUCTIONS

Alvin G. Keene, President, Information Management Institute, Inc., Kingfield, Maine

Teri Ross, President, Imagine That! Consulting Group, Minnetonka, Minnesota

Mark Hanley, President, IT Strategies, Hanover, Massachusetts

DIGITAL TEXTILE PRINTING: STATE OF THE MARKET

Mark Hanley, President, IT Strategies, Hanover, Massachusetts

- Slow Progress: The Numbers So Far
- Electrostatic Dye Sublimation: The Dark Horse
- Developments In Ink Jet Technology

6:00 p.m.

Reception

Thursday, October 17, 2002

7:00 a.m.

Continental Breakfast

8:00 a.m.

Realities of Digital Textile Printing

FACING THE LEARNING CURVE IN WIDE FORMAT INK JET TEXTILE PRINTING

Dr. Nicholas Hellmuth, Senior Review Editor, FLAAR & Director, Large Format Digital Imaging Division, Bowling Green State University, Bowling Green, Ohio

- Collaborative Program To Ascertain Benefits & Reality Of Employing Wide Format Ink Jet Printing Of Textiles
- University Campus Test Site Provides Diverse User Community & Needs
 - Interior Decorating Program
 - Textile Art Program
 - Apparel Merchandising & Product Development Programs For Fashion Industry Fabrics
 - Theater Department: Stage Backdrops & Period Costumes
 - Public Broadcasting TV Station Production Backdrops
 - Potentially 1000's Of Universities, Colleges, Museum, Art Institutes & Related Organizations Large Enough To Support A Digital Textile Printer
- FLAAR Believes Public Awareness & Education Will Help Remove Purchase Barriers
 - Rosy Marketing Projections Vs. Slow Real World Implementation
 - Limited Industry Resources For User Education
 - Technology "Secrecy" From Vendors
 - Limited Vendor Documentation
- Lessons From Those Of Us Facing "The Learning Curve"

WHERE'S THE MONEY IN DIGITAL TEXTILE PRINTING?

Teri Ross, President, Imagine That! Consulting Group, Minnetonka, Minnesota

- Traditional Textile Industry Views Digital Textile Printing As Too Expensive & Slow
- Problem Lies With Textile Industry's Approach – Not The Technology
- Wide Format Printing Industry Has Business Models & Technology In Place To Support Mass Customization: They Are Poised To Capture This Emerging Market
- Sewn Products Industry Expert Explores
 - Structure & Finance Models
 - Areas Where Digital Textile Printing Will Find Revenue Opportunities

DIGITAL TEXTILE PRINTING IN ASIA AND EUROPE: WHAT IS HAPPENING?

Stewart Partridge, Managing Director, Web Consulting Ltd., Wantage, Oxfordshire, United Kingdom

- Market Background & Overview
- Focus on Five Markets - Japan, China, Italy, Turkey, UK
- European & Asian Manufacturers - Hardware & Inks
- Successes & Roadblocks
- Applications - Present & Future
- Forecast & Recommendations

PIEZOELECTRIC INK JET TECHNOLOGY FOR PRODUCTION TEXTILE PRINTING

Howard Baldwin, Vice President of Sales, Spectra, Inc., Downers Grove, Illinois

- Piezo Technology & Printhead Manufacturers
- Current Status Of Ink Jet For Textile Printing
- Textile Production: Barriers For Ink Jet
- The China Explosion For Ink Jet
- The Missing Links: What Will It Take For Piezo & Ink Jet To Succeed?

12:00 Noon

Luncheon

1:30 p.m.

Commercial Successes, User Experiences & Needs

DIGITAL VS. CONVENTIONAL FLAG AND BANNER PRINTING

Alan D Thompson, Publisher, Flag Industry Focus, Yarm, United Kingdom

- Global Flag & Banner Market: Structure, Size, Players, Etc.
- Factors Influencing Demand: 9/11; Sports Events; Festivals/Celebrations, Etc.
- Impact Of Ink Jet Printing
 - Fabrics Used
 - Increased Soft Signage
 - POS Applications
- Development Of New Products Using Available Assets
- Challenges & Opportunities For Digital Textile Printing

THE INKDROP BOUTIQUE

Kerry Maguire King, Graphic Designer, TC², Cary, North Carolina

- Challenges Of Manufacturing Customized Digitally Printed Sewn Products For Niche Markets
- Major Issues
 - Product Development
 - Workflow
 - Color Management
 - Pricing
 - Sales

OF TEXTILES CONFERENCE



DIGITAL TEXTILE PRODUCTION REQUIRES NEW BUSINESS MODELS

Bill Grier, President, Beta Management Team, Ontario, California

- Traditional "Mass Produce & Discount The Surplus" Structure Is Not Working
- Consumer Choice & Replenishment Manufacturing Provide A Solution
- ZIP (Zero Inventory Production) Manufacturing Strategies
- Experiences With Real Customers
- Requirements For Apparel Technology Research Center
- Apparel Retailer Selection
- Digital Manufacturing Of Textile Products, i.e. Toys, Recreation, Home & Other

SUPPLIER'S FORUM

5 Minute Presentations Related To New Digital Textile Printing Product or Service Capabilities and Introductions: Open to all Conference Registrants

6:00 p.m. Reception

Friday, October 18, 2002

7:00 a.m. Continental Breakfast

8:00 a.m. **Technology Developments & Implementation Issues**

NOVEL APPROACHES TO INK JET PRINT ONTO A RANGE OF TEXTILE FABRICS

Dr. Alan Hudd, Managing Director, Xennia Technology Royston, Hertfordshire, England and Professor Dave Lewis, Director, Lumenia Technology Ltd., Leeds University, Leeds, England

- Challenges & Requirements To Ink Jet Print Directly Onto A Range Of Textiles From Cotton To Wool
- Limitations Of Current Approaches Commercially Deployed
- Novel Chemistries Developed To Create Successful Direct Solutions
- Application Performance Achieved
- Licensing & Technology Options

COLOR MANAGEMENT AND SOFTWARE ISSUES FOR SUCCESSFUL DIGITAL TEXTILE PRINTING

Mike Ware, Chief Technology Officer & President, Wasatch Computer Technology, Salt Lake City, Utah

- Unique Software Requirements For Digital Textile Printing
 - RIP's
 - Color Management
 - Color Profiles
 - Multiple Colorways
- Approaches To Providing Solutions
- Software Development Trends

FABRIC CONSIDERATIONS AND OPTIONS FOR INK JET PRINTING OF TEXTILES

Lee Newsom, Director, Color Textiles Inc., Las Vegas Nevada & Founder, Newsom Resource Group, Eden Prairie, Minnesota

- Digital Imaging Fabric Preparation
- Fine Art On A New Medium
- Technology Advances
- Pre & Post Treatment
- Fabric Product Update
- Markets: Applications, Opportunities & Forecasts

techexchange.com

INK JET INKS FOR DIGITAL TEXTILE PRINTING

Alison Starkweather, Textile Product Manager, Lyson, Storkport, Cheshire, England

- Textile Ink Design Criteria
- Considerations For Different Fabrics
- Development Issues
- Achieving Performance Requirements
- Development Trends

DIGITAL TEXTILE PRINTING OPPORTUNITIES AND NEEDS

Ronald Beard, Business Development, DuPont Ink Jet, Wilmington, Delaware

- What Are Major Market Opportunities For Digitally Printed Textiles?
- User Needs In Different Market Segments
- What Are Barriers & Incentives To Adopting Digital Textile Printing?
- Digital Printed Textile Samples

12:00 Noon

Closing & Adjourment



REGISTRATION INFORMATION

Registration Fee: \$1095 per registrant per conference
\$995 for the second and each additional registrant from the same company to the same conference or for the same registrant to the second conference when registered as a group.

Each conference registration fee includes attendance at all sessions, scheduled functions and breaks plus the conference reference binder containing speaker handout materials and the program registration list with names and addresses for that specific conference.

Cancellations will receive a 100% refund if made 72 hours prior to the start of the program. Cancellations made less than 72 hours before the start of the conference will be subject to a \$300 cancellation fee, but will receive a copy of the conference binder. Substitutions may be made at any time.

To register for the **1st Digital Electronic Materials Deposition Conference** or the **6th Annual Digital Printing of Textiles Conference**, submit the registration form with payment to Susan Rundlett, Conference Administrator, Information Management Institute, Inc., 1106 Valley Crossing, Carrabassett Valley, ME 04947 USA. You may reserve space by calling +1-207-235-2225, sending a fax to +1-207-235-2226 or by sending an email message to imi@tdstelme.net or you may register on our web site at <http://imi.maine.com>



REGISTRATION FORM

1st Digital Electronic Materials Deposition Conference
October 14-16, 2002

6th Annual Digital Printing of Textiles Conference
October 16-18, 2002

NAME _____

TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COUNTRY _____

PHONE _____ FAX: _____

EMAIL _____

WYNDHAM PALM SPRINGS HOTEL

The **1st Digital Electronic Materials Deposition Conference** and the **6th Annual Digital Printing of Textiles Conference** are being held at the Wyndham Palm Springs Hotel conveniently located near the center of Palm Springs, California.

Hotel reservations are the responsibility of each meeting registrant. To receive the special meeting rate of \$134 for single or double occupancy, you must identify yourself as a registrant to **IMI's 1st Digital Electronic Materials Deposition Conference or 6th Annual Digital Printing of Textiles Conference**. **Early booking is advised** as the reduced rate is guaranteed only until September 23, 2002. Phone the hotel reservation department at +1-800-996-3426 to make hotel reservations

All checks should be in U.S. dollars drawn on a U.S. bank and made payable to Information Management Institute, Inc. An invoice with bank transfer details for IMI's U.S. or European bank account will be provided upon request.

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