

14-16 March 2017

Aquatis Hotel | Lausanne | Switzerland

Inkjet engineering and ink technology advances – technical conferences for developers

Inkjet Engineering Conference

14 March 2017

Components and techniques for digital printing system development and production

The IMI Europe Inkjet Engineering Conference is a technical conference devoted to components and techniques for digital printing system development and production. The event is aimed at inkjet system developers across applications including packaging, textiles, graphics, industrial and functional printing. The conference gives access to key suppliers and technology from the inkjet industry – everything that you need to develop inkjet systems and solutions.

Topics for the event include printheads, drive electronics, software and integration. The conference provides information on important themes such as printhead choice, reliability and print quality.

**Ebeam Technologies // Edale // Exergen
Global Graphics Software // Global Inkjet Systems
Inca Digital Printers // Meteor Inkjet // Pall Filters
Reden // University of Twente**

Inkjet Ink Development Conference

15-16 March 2017

Materials, equipment and techniques for digital printing ink development and manufacturing

The IMI Europe Inkjet Ink Development Conference is a two-day technical conference devoted to digital printing ink development and manufacturing. The event is aimed at inkjet fluid developers across applications including packaging, textiles, graphics, industrial and functional printing. The conference gives access to key suppliers and technology from the inkjet industry – everything that you need to develop and manufacture inkjet inks.

Topics for the event include colorants, material dispersion, resins & polymers, photoinitiators, additives and other materials, analytical equipment & techniques, processing & manufacturing equipment, jetting and surface behaviour and application case studies. The conference provides information on important themes such as creating stable dispersions, raw material quality, process stability and additives for formulation.

**adphos // Alchemie Technology // Amazon Filters
Armor Industrial Inks // Chemspeed Technology
Fullbrook Systems // ImageXpert // Malvern Instruments
Mexar // Netzsch // Promethean Particles // Ricoh // Setas Kimya
Technische Universität Chemnitz // Tiger Coatings
University of Cambridge // University of Leeds
University of Manchester Graphene Centre
University of Sheffield // X-Rite**

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IMI Europe Inkjet Engineering Conference

Tuesday 14 March 2017

The IMI Europe Inkjet Engineering Conference is aimed at printing system development engineers looking to find out about the latest products, technology and techniques, and exchange ideas with peers.

The conference covers printheads, drive electronics, software and integration. The conference programme provides information on topical themes such as printhead choice, reliability and print quality.



TECHNICAL ADVISORY BOARD

The conference is guided by a Technical Advisory Board consisting of key industry figures, including:

Dr Nick Campbell, Inca Digital Printers
Mike Willis, Pivotal Resources
The Technical Advisory Board is chaired by
Dr Tim Phillips of IMI Europe.

PRESENTING COMPANIES

Ebeam Technologies // Edale // Exergen
Global Graphics Software // Global Inkjet Systems
Inca Digital Printers // Meteor Inkjet // Pall Filters
Reden // University of Twente

NETWORKING

Meet with suppliers, industry experts and developers from other companies at our complimentary networking breaks, lunch and evening drinks reception. Excellent refreshments will help you enjoy this key part of the conference.

SPONSOR EXHIBITS & FORUM

Event sponsors will have their products and technology on display in the breakout area. In addition the Sponsors' Forum enables you to hear short presentations from sponsors with their latest news. If you are interested in becoming an event sponsor, please visit our sponsorship page.

FREE REPORT

Conference registration includes a free copy of the IT Strategies "The Numbers" market report.

Tuesday 14 March 2017

09:00-10:00 Registration

10:00 Morning session begins

Some challenges in the design of high speed single pass inkjet printers

Dr Nick Campbell
Project Manager, Inca Digital Printers



"How difficult can it be to make a single pass inkjet printer? You just hold the printheads over the moving substrate and fire out the ink, then you dry or cure it."

This is true, but the Devil is in the detail – and there's a lot of detail. The requirements for position and speed stability and accuracy are very different from conventional analogue printing. Aqueous inkjet inks contain more water than conventional analogue inks, requiring more drying and having a greater effect on the stability of paper substrates. Inkjet technology also brings along its own catalogue of difficulties.

This presentation summarises the world of pain that is single pass inkjet printer development and highlights some of the key issues in process development and the project management of such a development.

Simulating different phases in the printing process

Jakko Nieuwenkamp
Senior Engineer, Reden



The digital printing process is becoming increasingly important within new manufacturing methods. It provides the flexibility, accuracy and scalability that's requested. The development of the printing process for new applications will come with new challenges. Insight in the printing process is a requirement to overcome these challenges and develop a robust printing process. Simulating the phases of the printing process will provide the necessary insight at an early stage of the development process. An overview of a set of simulation models covering different phases of the printing process will be presented.

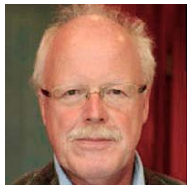


IMI Europe Inkjet Engineering Conference

Tuesday 14 March 2017

Basics of piezo driven inkjet printheads: Fluid dynamics and nozzle design

Prof Dr J. Frits Dijkstra
University of Twente



In order to integrate many nozzles at a small pitch in a piezo driven printhead, each ink carrying duct must be long with a narrow cross-section. The length is necessary because of the small displacement of the piezo actuator; to achieve sufficient volume displacement to generate droplets the actuator area must be sufficiently large. Upon activation, pressure waves are generated that travel back and forth through the printhead fluid paths. These waves reflect at the nozzle and at the connection to the main supply channel. In the nozzle the resulting fluid motion is of the order of magnitude of the length of the nozzle, causing considerable non-linear effects. A model will be presented that allows for the precise calculation of the evolution of pressure waves depending on pulse shape and frequency, and the interaction with the non-linear effects in the nozzle, namely varying viscous drag, non-linear surface tension forces related to the meniscus position, inertia effects linked to the direction of fluid motion in the nozzle and finally droplet formation.

Printhead selection and evaluation

Jonathan Wilson
Sales Director, Meteor Inkjet



There is a vast and growing range of inkjet printheads and this has enabled the adoption of inkjet technology in an ever-expanding array of applications. When developing an inkjet printer, selection of the most appropriate printhead is fundamental. This presentation will detail important considerations in the selection and evaluation of printheads including criteria for target applications, suppliers and their products, interesting printhead features, datapath and software considerations, and evaluation techniques and equipment.

Challenges in ink delivery system design and operation

Dr Jozef Vlaskamp
Engineer, Global Inkjet Systems



This presentation will cover some of the fundamental issues related to building and maintaining robust ink delivery systems (IDS). The challenges for IDS designers and builders are increasing - more industrial printheads require controlled/adjustable recirculating flow; other printheads and fluids may benefit from low flow recirculation; system sizes are increasing which increases complexity; fluids may need degassing or heating. This presentation will cover these key issues including tubing, pressure control, flow type, different IDS design options, pitfalls and troubleshooting common problems.

14:30 Afternoon session begins

How to build a digital front end

Dr Martin Bailey
CTO, Global Graphics Software



What do you need to create a digital front end to drive your press? How do you define one anyhow? This presentation looks at the basic building blocks and covers what you need to think about when you design your press. How do you tune your DFE to your customer's requirements when many print service providers don't know what to look for in the software mix. It's a salutary reminder that the best performing inkjet presses live or die by the software that drives them.

Inkjet web transport - an inside view

Daryl Finter
Engineering Director, Edale



There are an ever-increasing number of inkjet presses in the marketplace using different printhead, ink and drying technologies. They all run at different speeds and web widths while processing disparate materials. Some form part of a larger analogue printing press, while some are dedicated process development laboratory rigs. Edale has a long history (long in single pass inkjet terms!) in developing dedicated web transport machinery for single pass inkjet. The presentation will look at some of the key required technologies, examining what it takes to create a highly accurate, stable and integrated machine for inkjet. The requirement to print a variety of materials, some of which are inherently unstable, represents a significant challenge. We will also discuss how these machines can incorporate digital and analogue printing and converting technologies.

Filtration, degassing and oxygen measurement technologies for inkjet printing applications

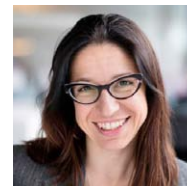
Oliver Baatz
SLS Project Manager
Microelectronics, Pall Filters



Filtration and degasification are key technology requirements for digital printing. Finer resolution and higher printing speed as well as changing ink chemistries and substrates are the challenging factors of today. Controlling of further parameters like dissolved oxygen become more important. This presentation will provide an overview about the filtration and degassing methodology and technology on board of digital inkjet printers, including specific product type recommendations and how to ensure keeping parameters under control.

Electron beam curing technology

Elsa Callini
Business Development
Manager, ebeam Technologies



E-beam is potentially the ideal curing approach for food safe packaging. This comprehensive review and introduction of ebeam technology addresses the physical process of electron generation, the electron-matter interaction, and the chemistry of ebeam curable inks. Case studies and examples will be discussed demonstrating what makes the chemistry and physics of ebeam unique as an alternative to traditional curing methods. A focus will be placed on food safety with solutions to eliminate the risks associated with photoinitiators, migration, and VOC emissions. From heat sensitive materials, aluminum foils, wet on wet, and even curing inks and over-print varnish simultaneously, with the versatility of inkjet, ebeam covers a wide range of application areas.

Thermal management techniques to increase production speed and maintain quality

Bart van Liempd
CEO, Exergen Global



The pressure to continually deliver increased print production speeds while maintaining consistent quality is an ongoing challenge in the digital inkjet printing industry - one that is exacerbated by thermal management issues. It is generally accepted that temperature measurement in print production processes is best achieved with non-contact sensors, yet most infrared temperature measurement methods are limited to material surfaces, a serious drawback when considering speed increases and quality. The presentation will describe a heat balance equation that provides for the difference between equipment surface temperature, which is directly measured, and bulk material temperature, which is indirectly measured. The presenter will outline how the equation can calculate the internal temperature of equipment, allowing manufacturers to optimise control, increase speeds and maintain consistent quality.

17:30-18:30 Sponsors' Forum

Hear short presentations from the event sponsors.

18:30-20:00 Networking Reception

Join us for wine, beer, canapés and good company!

20:00 Conference ends

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FILTRATION SPECIALISTS



13:00-14:30 Lunch - sponsored by



IMI Europe Inkjet Ink Development Conference

Wednesday 15 - Thursday 16 March 2017

The IMI Europe Inkjet Ink Development Conference is aimed at ink development chemists looking to find out the latest products, technology and techniques, and exchange ideas with peers. The conference covers colorants, material dispersions, resins and polymers, photoinitiators, ink additives and other materials, analytical equipment and processing techniques.

The conference programme provides information on creating stable dispersions, the impact of additives on formulation performance, raw material quality and consistency for manufacturing, and other topical themes.



TECHNICAL ADVISORY BOARD

The conference is guided by a Technical Advisory Board consisting of Dr Andy Hancock, Mexar and Dr Tim Phillips of IMI Europe.

PRESENTING COMPANIES

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Wednesday 15 March 2017

09:00-10:00 Registration

10:00 Morning session begins

Development of aqueous pigmented inkjet inks for industrial applications

Dr Andy Hancock
 Technical Director, Mexar



This talk will outline some of the interest areas for aqueous pigmented inkjet inks for industrial printing. It will include a detailed overview of the technical challenges faced by formulators in this area. Specific applications such as textile printing and décor printing will be highlighted with some insights into the future, including single pass printing and the challenges this presents for inkjet ink developers.

Inkjet printing inks for textiles - Challenges and potential solutions

Prof Long Lin
 Digital Print Centre of Industrial Collaboration, University of Leeds



Whilst research and development into inkjet printing of textile fabrics started a few decades ago, the technology seems to have recently caught the imagination of the textile printing industry and embarked on a phenomenal upward spiral of technology improvement and application expansion! This talk will present a view of existing challenges for both pigment-based and dye-based inkjet printing technology and potential solutions to such challenges, which will hopefully help propel the advancement of inkjet printing technology for textiles.

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IMI Europe Inkjet Ink Development Conference

Wednesday 15 - Thursday 16 March 2017

UV-curing inks for flooring applications

Dr Dieter Holzinger

R&D Manager Inkjet Ink, Tiger Coatings



In this presentation an overview regarding the usage of special UV-based inkjet inks for flooring applications will be given. A special focus will be on the melamine compatibility of these inks. Furthermore the different manufacturing processes of laminate that are compatible with the acrylate-based inks will be described. Additionally a comparison between water- and UV-based inks in technology and cost will be given. In an outlook the usage of UV-based inkjet inks for the production of Luxury Vinyl Tiles (LVTs) will be introduced.

High quality reactive dyes and inkjet inks for industrial textile printing

Dr Mehmet Emre Şener

President, Setas Kimya Group



Setas Kimya has been a traditional textile dyestuff manufacturer since 1966. During recent years Setas has focused on developing aqueous inkjet inks for the textile market. After successfully completing the disperse range (both sublimation and direct printing inks) Setas is now focusing on reactive inkjet dyes and inks. Using its own in-house reactive dye synthesis capabilities Setas will produce not only monochlorotriazine reactive inks but also bifunctional reactive inks for the textile market to increase the colour yield on fabrics (thus decreasing the overall printing cost for users).

Inkjet printing for novel functional applications

Dr Patrick J. Smith

University of Sheffield



Inkjet printing has a number of distinct advantages which includes precisely positioning droplets at pre-determined locations on a substrate and depositing up to four different colours. The size of the droplets can be tailored but of greater interest is the reproducibility of droplet production. In this talk, I describe how these advantages have given rise to novel application areas in carbon fibre composites and in medicine and biology. In carbon fibre composites, discrete droplets of PMMA increase the toughness of the composite whilst maintaining the weight advantage of the composite. Promising dual material systems, made possible by inkjet, offers increases in strength and toughness. The ability to print more than one ink has led to the field of reactive inkjet printing, which has been used to pattern dental membranes and produce silk structures such as small micro-rockets.

13:00-14:30 Lunch

14:30 Afternoon session begins

Tools and tips for inkjet developers - waveform optimization

Yair Kipman

President, ImageXpert

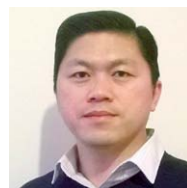


In this presentation, ImageXpert will give a behind-the-scenes look at the systems used in inkjet R&D to produce better results in a shorter amount of time, with a focus on waveform optimization. This in-depth talk will provide recommended tests, tips, data, and actual results, based on observations taken from over three hundred ink, printhead, and printer developers. Topics include: an overview of available tools for waveform optimization and other R&D tasks, a step-by-step waveform optimization process with real images and data, and tips for bridging the gap between good jetting and good printing.

Effect of waveform on ink jetting performance

Dr Changlong Sun

Technical Sales Manager, Ricoh

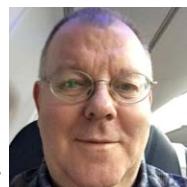


Waveform optimisation is a key step to achieve good jetting performance for Drop-on-Demand piezo inkjet printheads. The waveform is a set of parameters used to control the activity of the piezo actuator, more specifically controlling the timing and amplitude of the actuator. Almost every ink is customised and every printer is a unique design in the fast expanding industrial inkjet market. This will require waveforms to be tailored for each ink and each system. This talk will cover how waveform optimisation can improve the ink jetting performance in the areas of controlling drop ligament, reduction of satellites, increasing jetting stability, etc.

Rheology measurements for inkjet inks

Mats Larsson

Product Technical Specialist, Malvern Instruments



Rheology is the science of flow and deformation of materials and covers many vital functions of our lives. Ink rheology is important not only for the jetting process but also on the formulation and manufacturing of inks. Another factor affected by ink rheology is the behavior on the substrate on which it is printed. This presentation will give an introduction to rheology, and some examples of rheological tests on different types of inks. Focus will be on ink stability before, during and after the jetting process and the demands on inks in different applications.

Measuring high-rate rheology of inkjet fluids using a continuous jet experiment

Dr Oliver Harlen

University of Leeds



Jetting and drop formation in inkjet printing are strongly affected by fluid rheology. During jetting the fluid experiences the sudden onset of very high shear and extensional flows. Traditional rheometers are designed for more viscous fluids and cannot operate at the strain-rates and frequencies encountered in inkjet printing. This presentation discusses the use of a continuous jetting experiment to determine the extensional rheology of low viscosity fluids by measuring the thinning of the liquid bridges between drops prior to break-off.

How to use colour measurement systems to optimise ink development

Jochen Mohr

Applications Specialist, X-Rite



Developing a new ink without using the right colour measurement systems can be futile, taking many iterations to get a colour that is visually acceptable. This presentation will describe the process of calculating formulas, making an initial formulation and measuring samples using a colour measurement system. This simplifies and speeds the process, removes guesswork and utilises existing ink supply. Whether you need to produce a specific colour, turn around trending colours, or want to make your colour creation process fast and accurate, the talk will describe how to optimize your ink development.

High-throughput and high-output formulation, application and testing of inks

Carine Marcos

VP Business Development, Chemspeed Technology



The ink development industry is seeking efficiency increases and raw material cost savings. Automation of intelligent workflows promises increased efficiency, flexibility, diversity, standardisation and speed in the entire formulation, application and testing process. Based on this concept, selected case studies of high throughput and high output formulation, application and testing of inks will be presented, including ink formulation, ink application and product characterisation and testing.

18:00-18:45 Sponsors' Forum

Hear short presentations from the event sponsors.

18:45-20:15

Reception - sponsored by

Join us for wine, beer,

canapés and good company!

Alchemie

IMI Europe Inkjet Ink Development Conference

Wednesday 15 - Thursday 16 March 2017

Thursday 16 March 2017

09:00 Morning session begins

Water-based 2D-crystal inks: from formulation engineering to all-inkjet-printed devices

Prof Cinzia Casiraghi

Graphene Centre, University of Manchester



The isolation of two-dimensional (2D) materials using mechanical exfoliation allows the fabrication of heterostructure devices such as tunnel diodes, tunnelling transistors, photodetectors and light emitters. Exploiting the properties of 2D crystals for commercial applications requires a production method able to produce complex heterostructures on any substrate. Solution processing of 2D crystals allows fabrication techniques such as inkjet printing to be used. However, available formulations are not suitable for fabrication due to the re-mixing of different 2D crystals, leading to poor device performance. We demonstrate inkjet printable 2D crystal formulations, providing optimal film formation for multi-stack fabrication. We show examples of all-inkjet printed heterostructures, such as large area arrays of photosensors and programmable logic memory devices. In vitro cytotoxicity assays confirm biocompatibility, leading to potential biomedical applications.

Hydrothermal synthesis of nanoparticles for inkjet printable inks

Dr Pete Gooden

Technical Manager, Promethean Particles



Promethean Particles design and develop bespoke inorganic nanoparticle dispersions by continuous hydrothermal synthesis and are currently commissioning the world's largest continuous hydrothermal reactor system capable of producing multiple materials at ton scale. This technology allows for the continuous production of large volumes of metallic nanoparticles with no observable oxide impurity. Small uniform particles can enable applications such as low-T sintering conductive inks using metals like Cu and Ag. Also, the reduced particle size provides opportunities in the choice of print method and inkjet printing of these inks shows great promise, particularly for fine-feature circuitry on flexible substrates. Working with our partners, these materials have been formulated into inkjet printing inks, demonstrated using a Dimatix DMP printer, which display good conductivity of ~50 mΩ/□.

Inkjet approaches to manufacture flexible electronics and beyond

Prof. Dr. Reinhard R. Baumann

Technische Universität Chemnitz, Digital Printing and Imaging Technology



Printing is a sustainable manufacturing technology for printed products, with inkjet digital printing technology providing product individualisation opportunities. By printing a layer stack of inks, e.g. electrical insulation, conductivity and semi-conductivity, appropriate patterns can be manufactured to give in active electric circuitry. Beyond electronics applications further functionalities, e.g. catalysis, filtration and photonics are entering industrialisation. The paper will discuss opportunities, challenges and limitations of manufacturing systems for the industrialisation of printing smart objects at small batch sizes and appropriate applications.

Near-IR drying solutions, case studies and benefits in functional inkjet printing applications

Dr Kai Bär

Managing Director, adphos Digital Printing



Adphos' near-IR photonic technology can be applied for multiple fast heating, drying and sintering/curing processes. Based on a short introduction of the technology's working principle, the benefits will be outlined, evaluated and justified in real case applications including textile printing (including sublimation ink drying) and printed electronics. Finally we will outline new dryer design configurations for 3D-shaped components and introduce initial attractive results in high speed 3D-additive manufacturing.

Case study: The development of bespoke filter configurations for digital ink

David Ridealgh

Market Development Specialist, Amazon Filters



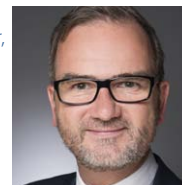
Today's complex ink formulations provide unique challenges in implementing optimal filtration. This case study highlights the problems associated with specifying based on standard micron ratings assigned using efficiency to particulate. Work conducted at a major UV ink manufacturer demonstrated the large discrepancy between stated and actual retention performance. Maximising pigment transmission while retaining agglomerates and microgels was achieved through an iterative design process. The solution provided consistent ink quality and eliminated the inconsistent jetting performance some wide format customers were experiencing.

13:30 Afternoon session begins

Challenges and applications for aqueous industrial inkjet inks

Frank de Jonge

Business Development Director, Armor Industrial Inks



The presentation will examine the opportunities for water-based inkjet inks for key applications like flooring and packaging. In these cases the requirement for application performance and jettability presents significant formulation challenges based on the need for significant pigment loading and binder concentration. These challenges, along with substrate compatibility, pre- and post-treatment methods and suitable curing technologies will be discussed for each application, and latest developments presented.

Manufacturing of digital inks: Process improvements beyond the use of bead milling technology

Santiago Requena

Digital Inks Processing Global Product Manager, Netzsch



The process of manufacturing digital inks is not just about ultrafine grinding of particle suspensions into sub-micron or nano range. It is a far more complex set of processes such as solid/wet phase mixing, wetting out, interaction of chemicals and solid surface, stabilization and homogenization, plus of course fine grinding into the desired particle size distribution. Traditionally, most of these processes have been performed by premixing the components of the formulation and then by bead mills (pre or fine grinding). The more demanding requirements for digital inks have pushed into new or adapted technologies, such as vacuum feeding of solids, microcavitation of predispersion, medium pressure homogenizers and others to better suit the individual process steps.



12:30-13:30 Lunch

Inkjet Ink Development Conference

Wednesday 15 - Thursday 16
March 2017

Pigment dispersion technology for industrial inkjet inks

Dr Alan Hudd

Founder & Director, Alchemie Technology



The talk will highlight the key elements of inkjet ink design, especially focused on successfully developing inkjet inks based on difficult and functional materials. In particular, methods of creating chemically-stabilised colloidal, organic and inorganic pigment dispersions will be described for reliable and stable jetting performance. A range of typical difficult materials will be presented along with the argument that there should be no reason whatsoever to block an inkjet nozzle using pigment-based inkjet inks.

Aerodynamic behaviour of inkjet drops in flight

Dr Cristina Rodriguez-Rivero

University of Cambridge



Industrial inkjet printing involves the accurate deposition of droplets onto a printing medium.

It has been observed that printhead-substrate throw distance and the velocity of the moving medium affect print quality due to aerodynamic phenomena. Increasing the throw distance without compromising print quality is a priority. This work presents an experimental investigation of the airflow within the gap between printheads and a moving medium. High speed imaging and laser visualisation gives a good insight into the process and allows improvement of printing conditions.

Measurement of stability of inkjet inks and control of foam formation using multiple light scattering

James Holloway

Technical Sales, Fullbrook Systems



Measuring the stability of inkjet inks at working concentrations is a challenging issue. The use of multiple light scattering allows the rate of any size change or migration to be measured and quantified at an early stage, which is essential for both development and quality control functions. The rapid nature of the test also makes it ideal for assessment of foam formation and collapse, allowing for the optimisation of anti-foam and defoaming agents.

16:00 Conference ends

IMI Europe Inkjet Summer School 2017

12-16 June, 2016

Novotel Gent Centrum Hotel | Ghent | Belgium



The IMI Europe Inkjet Summer School is the ideal way to learn more about key aspects of inkjet technology, from the basics through to advanced courses on inks, printheads and applications. A brief summary of each of the 2017 courses is shown

below - go to the individual course pages to find out more. Discounts are available for attending more than one course, or if your company is sending more than one person to the event - see the registration page for details.

INKJET ACADEMY

Theory of inkjet technology

Monday 12 - Tuesday 13 June, 2017

This one-and-a-half day course has been attended by over 3,000 people in the past 17 years. Presented by Mike Willis of Pivotal Resources and Dr Alan Hudd of Alchemie Technology, the course covers all of the basics of inkjet technology.

FLUID DYNAMICS & ACOUSTICS

How inkjet printing really works

Monday 12 - Tuesday 13 June, 2017

The aim of this course is to couple the characteristics of droplet formation and landing, spreading and permeation to the acoustics of the fluidics of the printhead. The course leader is Prof Dr Frits Dijkman, University of Twente, Netherlands.

INKJET INK CHARACTERISATION

Viscosity, dispersions, jetting & surfaces

Wednesday 14 - Thursday 15 June, 2017

This course covers rheology and surface tension measurements, particle and dispersion assessment, as well as drop visualisation and print quality analysis. Course leaders include Prof Long Lin of the University of Leeds, Gérald Chabanis & Dr Anne Virden of Malvern Instruments and Kyle Pucci of ImageXpert.

DIGITAL TEXTILE PRINTING

Applications, ink chemistry & integration

Wednesday 14 - Thursday 15 June, 2017

The course will give an overview of the industry - the markets, applications and technology. The overall market dynamics and technology requirements for each digital textile application will be described. The required ink chemistries will be reviewed, and their use in inkjet printheads, and pre- and post-processing requirements detailed. Integration of inkjet technology within a production environment will also be considered, as well as the challenges of inkjet system design to make the process production-compatible.

INKJET DRYING & CURING

Hardware & chemistry for fixing inkjet inks

Thursday 15 - Friday 16 June, 2017

This course covers the requirements for fixing inkjet inks, and covers near IR drying, UV curing and electron beam curing hardware, as well as the required chemistry. The course includes contributions from Phoseon, Adphos and Ebeam Technologies.

JETTING FUNCTIONAL FLUIDS

Rheology, deposition and process development

Thursday 15 - Friday 16 June, 2017

In this course you can learn how to develop a functional printing application, including inkjet printhead selection, formulating an ink with functional materials and jetting functional fluids onto a substrate. The course is led by Dr Neil Chilton of Printed Electronics Ltd.

How to register

Please register on-line via our website:
www.imieurope.com

We will check availability and email your registration confirmation together with an invoice with payment details.

Discounts

We also offer a 20% discount for additional registrations from the same company.

If you would like a quotation please email enquiries@imieurope.com with your requirement. Where multiple discounts apply we will allocate the two largest discounts to the total.

Location and hotel information



The **IMI Europe Inkjet Engineering Conference** and **Inkjet Ink Development Conference** are being held at The Aquatis Hotel in Lausanne, Switzerland.

Ideally located in Lausanne-Vennes, this hotel is easily accessible from the M2 metro station (which is beneath the hotel) with connections to the city centre and Lake Geneva. The hotel features an aquatic ambience with 143 comfortable rooms and is equipped with a restaurant and fitness centre.

Hotel reservations and room charges are the responsibility of individual attendees.

Registration fees

IMI Europe Inkjet Engineering Conference

- Attendance at all sessions
- Pdf presentations
- One lunch
- One reception
- Coffee breaks
- IT Strategies inkjet printer and supplies market report

Standard fee: €695

€200 discount for those in academia and under-25s

On-site registration: €795

IMI Europe Inkjet Ink Development Conference

- Attendance at all sessions
- Pdf presentations
- Two lunches
- One reception
- Coffee breaks
- IT Strategies inkjet printer and supplies market report

Standard fee: €995

€400 discount for those in academia and under-25s

On-site registration fee: €1,195

Booking policy

Cancellations will receive a 50% refund if made more than two weeks prior to the start of the event (i.e. on or before 28 February 2017). After this time, no refunds can be made, but your registration may be

transferred to another IMI Europe or IMI Inc event at no charge. Name changes for a registration may be made at any time, free of charge, but please let us know before the event so we can update our records.



We've negotiated a special room rate:

Single occupancy CHF 150 per room, per night
Double occupancy CHF 170 per room, per night

Rates include breakfast and WiFi.

Rates are subject to availability and include breakfast and taxes but exclude 5% city tax. See our website for more details on the venue.

To book your accommodation at the hotel with the special rate please use the **linked form** and email the hotel directly using the reference **IMI2017**.



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Lausanne

Lausanne is a city on Lake Geneva, in the French-speaking region of Vaud, Switzerland. It is home to the International Olympic Committee headquarters, as well as the Olympic Museum and lakeshore Olympic Park. Away from the lake and up the hill, the old city has medieval, shop-lined streets and a 12th-century Gothic cathedral with an ornate facade. The 19th-century Palais de Rumine houses fine art and science museums.