# PAPERmaking!

FROM THE PUBLISHERS OF PAPER TECHNOLOGY

Volume 5 Number 2, 2019

# **Forthcoming Events**

**DITP (Slovenia)** 20th & 21st November 2019 ditp@icp-lj.si **DITP 2019** 

**TECHNOLOGIE KRING (Apeldoorn, Netherlands)** 20th & 21st November 2019 www.technologiekring.nl

**PITA** 'Wet End Chemistry' Course (Darwen) 27th & 28th November 2019 info@pita.co.uk Wet\_End\_Chemistry\_Flyer\_-\_November 2019.pdf

**PAPEREX (New Delhi, India)** 3rd to 6th December 2019 http://india.paperex-expo.com/Conference

PAPER ONE SHOW (Dubai) 13th to 15th January 2020 https://paperoneshow.net/ - PITA Members get 20% discount on Stands

**PITA** 'Bridging the Gap' Course (Bury) 4th & 5th February 2020 info@pita.co.uk Bridging the Gap February 2020.pdf

**PITA 'Modern Papermaking' Course (Bury)** 10th & 11th March 2020 info@pita.co.uk Modern Papermaking March 2020.pdf

**PITA** 'Introduction to Wet End Chemistry' Course (Bury) 31st March & 1st April 2020 info@pita.co.uk Wet\_End\_Chemistry\_Flyer\_March 2020.pdf

SPECIALTY PAPERS EUROPE (Vienna, Austria) 20th to 22nd April 2020 www.specialtypaperconference.com/europe - PITA Members get 10% discount

**PITA** 'Pump Efficiency' Course (Bury) 21st April 2020 info@pita.co.uk Pump\_Efficiency\_Flyer\_April 2020.pdf

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**PAGES 3-4** 

5 Preshaville Court, Bury, Lancashire 809 00.7, United 1 Tel: +44 (01300 3020 550 1 at: +44 (01300 3020 10 ta ing in

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**Events** 

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|--|---|------------------|
|  | Papermaking' Course (venue tba)                 |                  |
| 28th to 30th April 2020                              |   |                  |
| info@pita.co.uk                                      | Fundamentals_Flyer April 2020.pdf               |                  |
| PITA 'Fundamentals of                                | Wastewater Treatment' Course (Bury)             |                  |
| 12th & 13th May 2020                                 |   |                  |
| info@pita.co.uk                                      | Wastewater_Treatment_Flyer_May 2020.pdf         |                  |
| PITA 'Food Contact' Co                               | ourse (Bury)                                    |                  |
| 19th May 2020  |   |                  |
| info@pita.co.uk                                      | Introduction to Food Contact Flyer May 2020.pdf |                  |
| PITA 'An Introduction t                              | o Tissue Manufacture' Course (Bury)             |                  |
| 16th to 18th June 2020                               |   |                  |
| info@pita.co.uk                                      | Tissue_Course_Flyer_June_2020.pdf               |                  |
| ZELLCHEMING CONFE                                    | RENCE (Darmstadt, Germany) PAGE                 | 9                |
| 21 <sup>st</sup> to 24 <sup>th</sup> June 2020       |   |                  |
| www.zellcheming.de                                   |   |                  |
| PITA 'Energy Optimisat                               | tion' Course (Bury)                             |                  |
| 6th & 7th October 2020                               |   |                  |
| info@pita.co.uk                                      | Energy_Optimisation_Oct_2020.pdf                |                  |
| PITA 'Modern Paperma                                 | king' Course (Bury)                             |                  |
| · · · · · · · · · · · · · · · · · · ·                |   |                  |

**PAPERmaking!** 

3rd & 4th November 2020info@pita.co.ukModern\_Papermaking\_November\_2020.pdf

The full PITA Calendar of World Events can be found at: <u>https://www.pita.org.uk/what-we-do/events-activities/calendar-of-world-events</u>



# DITP – 46 ANNUAL SYMPOSIUM, 20 & 21 NOVEMBER 2019

# 20.11.2019 15.00–16.45 "DIGITALISATION CONTINUES"

THE FUTURE OF PAPER INDUSTRY AND DIGITAL TRANSFORMATION – Stephane Duchatelle, Robert Mihalyi; ABB AG (AT)

READY FOR THE FUTURE OF PAPERMAKING WITH DUOSHAKE DIGITAL GENERATION – Benjamin Kitze; Voith Paper Rolls GmbH&Co KG (AT)

PAPER PACKAGING TESTING FOR THE GLOBALIZED MARKET – Igor Karlovits, Urška Kavčič, Gregor Lavrič; Pulp and Paper Institute (SI)

LUBRICATION GOES DIGITAL – Hans-Georg Weber; SKF Lubrication Systems Germany GmbH (DE)

#### 21.11.2019 9.00–10.45 "MATERIALS FOR CIRCULAR BIOECONOMY"

PROPERTIES OF CELLULOSE FIBERS OBTAINED FROM CORN STOVER AND WHEAT STRAW – Jan Hočevar1, Janja Zule2, Primož Titan3, Jernej Iskra1,3; 1University of Ljubljana, Faculty of Chemistry and Chemical Technology, 2Pulp and Paper Institute, 3RGA research genetics and agrochemistry, Ltd (SI)

GRAPHIC PRODUCTS MADE FROM JAPANESE KNOTWEED – Diana Gregor Svetec, Gregor Franken, Klementina Možina; University of Ljubljana, Faculty of Natural Sciences and Engineering (SI)

THE EFFECT OF NANOCELLULOSE ADDITION ON THE PROPERTIES OF WATER-BASED POLYVINYL ACETATE ADHESIVE – Barbara Šumiga1, Tea Kapun1, Boštjan Šumiga2, Matjaž Kunaver3; 1Pulp and Paper Institute, 2University of Ljubljana, Faculty of Natural Sciences and Engineering, 3National Institute of Chemistry (SI)

EVALUATION OF THE ENVIRONMENTAL FOOTPRINT OF SUSTAINABLE, RENEWABLE MATERIAL: AN EXAMPLE OF NANOFIBRILLATED CELLULOSE – Janez Turk1, Katja Malovrh Rebec1, Primož Oven2, Ida Poljanšek2, Anja Lešek1, Davor Kvočka1; 1Slovenian National Building and Civil Engineering Institute, 2University of Ljubljana, Biotechnical Faculty (SI)

#### POSTERS 10.45–11.30 (Coffee break + poster presentations)

ANTIMICROBIAL ACTIVITY OF TWO-LAYER COATING WITH OIL, GREASE BARRIER AND INCORPORATED MICROCAPSULES – Daša Medvešček1, Mateja Zajc1, Aleš Palatinus2, Jelena Vasiljević3, Barbara Golja3, Boštjan Šumiga3; 1Pulp and Paper Institute, 2Papirnica Vevče d.o.o., 3University of Ljubljana, Faculty of Natural Sciences and Engineering (SI)

DEVELOPMENT AND DESIGN OF AN INTERACTIVE STUDY MATERIAL WITH THE CONTENT OF PRINTING PROCESSES – Simona Perovšek, Deja Muck, Helena Gabrijelčič Tomc; University of Ljubljana, Faculty of Natural Sciences and Engineering (SI) PAPERmaking! FROM THE PUBLISHERS OF PAPER TECHNOLOGY Volume 5, Number 2, 2019



#### 21.11.2019 11.30-13.15 "INNOVATIONS IN FIBER TREATMENT"

IMPROVED STRENGTH DEVELOPMENT OF UNBLEACHED SOFTWOOD KRAFT PULP IN LAB REFINING THROUGH PRIMARY FINES ADDITION – Daniel Mandlez, Lukas Jagiello, Rene Eckhart, Wolfgang Bauer; Graz University of Technology, Institute of Paper, Pulp and Fiber Technology (AT)

INTELLIGENT REFINING TO CONTRIBUTE MINIMIZED OPERATING COSTS, OPTIMAL QUALITY AND INCREASED STABILITY – SOLUTIONS AND RESULTS – Juha-Pekka Juhtanen; Valmet GesmbH (AT)

LATEST ANDRITZ TECHNOLOGIES IN SCREENING AND DEWATERING – Thomas Schiffer; Andritz AG (AT)

EXPERT SYSTEM APPROACH FOR OPTIMIZATION OF FIBRE PRODUCTION PROCESSES – Balazs David1,2, David B. DeVallance1,2, Miklos Kresz1,2, Leatitia Marrot1,2, Anna Sandak1,2, Jakub Sandak1,2, Bojan Borin3, Ema Fabjan3, Janja Zule3; 1Innorenew CoE, 2University of Primorska, 3Pulp and Paper Institute (SI)

**21.11.2019 14.30–16.15 "EFFICIENT RESOURCE MANAGEMENT IN PRODUCTION"** OPERATIONAL COST REDUCTION IN A PAPER MILL – Michael Kremsner; Flowtec Industrietechnik GmbH (AT)

HEAT RECOVERY SYSTEM INCREASED EFFICIENCY FOR STARCH PLANTS – Stefan Divjak; GAW technologies GmbH (AT)

MODERN PREPARATION AND CLEANING OF RECYCLED FIBERS – Nikolaj Orasche; KWI International Environmental Treatment GmbH (AT)

THE USE OF RECYCLED MATERIALS FROM PAPER PRODUCTION FOR GEOTECHNICAL STRUCTURE: THE EU PROJECT PAPERCHAIN – Karmen Fifer Bizjak1, Justina Šepetavc2, Ana Mladenovič1, Barbara Likar1, Stanislav Lenart1; 1Slovenian National Building and Civil Engineering Institute, 2Vipap Videm Krško d.d. (SI)

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46-INTERNATIONAL-ANNUAL-SYMPOSIUM-DITP



### INTERNATIONAL SEMINAR NOVEMBER 2019 TECHNOLOGIEKRING 'The paper-/board machine and paper-/board products' Van der Valk Hotel Apeldoorn-De Cantharel, Van Golsteinlaan 20 7339 GT Apeldoorn November 20th (Wednesday afternoon) | November 21st (Thursday morning)

### 20.11.2019

13.00 Welcome and opening by Jan Pille, Royal VNP. Young Talent and Paperschool

13.10 Setting the theme 'The paper-/board machine and paper-/board products' by the chairman of the day, Ronny Wurdiger, Deputy Technical Director/ Maintenance Manager, Mayr-Melnhof Eerbeek

Masterclass: The theme of the June seminar was related to raw materials and stock preparations. Some topics will now presented, as a follow-up, because of actual relevance. There is attention to simulation of processes, classifying of recovered papers and fiber testing to get more understanding of the fiber potential for both virgin as well as recovered stock. The role of water and the stability of the watersystems is key in modern papermaking. A biocide free bacteiral control concept will be presented as contribution to realise this.

13.30 Simulation Aided Process Control replaces the Papermaker's Little Black Book by Peter Fisera, CF ProcSim GmbH

13.50 Future classifying recovered paper per volume share by Peter Flieher, T.CON GmbH & Co. KG

14.20 L&W Fibertester Plus including Crill by Ad de Brouwer, ABB

14.40 Biocide-free Organic Deposit control with functional Bacteria by Pieter Steen-beek, Servophil AG

Masterclass: Paper machine developments & Press section.

Papermachine developments have special attention in this seminar. The focus this time is more on the press section, both machinerie as well as felt concepts. Both measurements (sensoring) to control performance and dry cleaning devices will be presented.

15.30 Update and developments pressing by Peter Moedl and Jannes Koops, Voith

16.15 ProTect by Dominik Mai, Voith and Press felts measure instruments by Ad de Brouwer, ABB

16.45 Aoki dry cleaning of sieves by Uwe Sonntag, Petax

#### Masterclass; Profile control.

In this block special attention is related to quality profiles measurements and matching with several converting challenges at customers side. After a starter with a masterclass presentation, papermakers will exchange related specific experiences in workshop setting. The workshop itself is in Dutch to improve knowledge / experience transfer.



17.25 Quality measurements and controls by Antti Kunnas, Valmet Automation Business Line

17.45 Workshop Profiling in relation to process– and customer problems

18.30 Networking at the technology market

19:15 Informal dinner in first class networking atmosphere and official ceremony Technologie Kring Award November 2019

### 21.11.2019

8:45 Opening by the chairman of the morning session, Leon Joore, Natural Fiber Application Center

### Masterclass: Paper Machine developments part 2.

In this block several topics will be presented in the area of new and/or advanced technologies like data analysis, virtual reality as service challenge, sensoring & testmethods.

9:00 Improved mill performance via advanced data analytics and advanced process controls by Hannu Latti, Valmet Technologies

9:20 Augmented reality for service, training and production by Andreas Zehnpfund, ABB

9:40 Smart Process Management – Power of Data by Annti Pirneskoski, Kemira

10:00 IGT Pick Test ISO 3783: Analysis method by Ferry Zuijder-wijk, IGT

#### Masterclass: Wet-end & Coating developments.

In this block there is attention to wet-end- and dry-end technologies like coating recipes to improve paper properties, like barriers etc., ending up in modern fit for products with added value.

10:50 FiberLean MFC - Cost Saving through innovative Product by Karlheinz Hurst, Omya

11:10 New barrier products and their recyclability by Markus Blomquist, FP-pigments

11:30 Perfect contour for best functions by Maick Nielsen and Erich Kollmar, TSE Coating

11:55 Waterborne coating formulations for paper applications to substitute PE-laminates by Jan-Pieter Luyten, Topchim N.V. (Solenis)

12:15 The plastic crisis, Barrier coatings are added value, not added cost by Warwick Hudson, Bim Kemi

12:35 End of seminar and take away lunch



# PAPEREX 3rd to 6th December 2019, Pragati Maidan, New Delhi, India

# CONFERENCE PROGRAMME

Day - 1 (Tuesday, 3rd December 2019) Technical Session I Paper Industry in the Coming Decade: Prospects(11.30 am to 1.30 pm)

- 1. Prospects of Indian Paper Industry in the Coming decade. Dr. B.P. Thapliyal, Director; Zarka Afroz, Project Assistant; Arun Kumar, Sr. Res. Fellow; Dr. Kawaljeet Singh, Sci. E II, Central Pulp and Paper Research Institute, Saharanpur, Uttar Pradesh, India.
- 2. Indian Paper Industry Key trends and challenges. Vikanshu Bhargava, Senior Manager; Ernst & Young LLP- India, New Delhi, India.
- 3. Paper Industry in the 2020's. Vijay Gupta, Managing Director, Founder Investments Squared Pte. Ltd., Singapore.
- 4. World Recovered Paper Markets. Bill Moore, President, Moore & Associates, USA.
- 5. Current status and challenges of the Japanese Paper Industry. Kunitaka Toyofuku; President; Toyofuku Paper Business Plan, Japan.

# DAY - 2 (Wednesday, 4th December 2019) Technical Session II: Industrial Internet and Analytical Software in Decision-making (9.30 am to 10.30 am)

- 6. Assisted decision making through advanced data analytics and remote expert support. Jari Almi, Director, Industrial Internet, Valmet, Tampere, Finland and Samuli Lehtonen, Director, Operations Performance Optimization, Industrial Internet, Valmet, Tampere, Finland.
- Field proven Mill Optimization of process performance via cutting edge digital IIoT Technologies. Ankur Mehrotra, Regional Manager – South East Asia, ANDRITZ Process Optimization, Chennai, India.

# Technical Session III: Innovations and New Developments (11.00 am to 1.30 pm)

- 8. Why Asian Pulp Producers are investing in Ozone Bleaching. Alexis Métais, Xylem, Germany and Brendan van Wyk; Business Development Manager Pulp & Paper; Xylem Water Solutions South Africa (Pty) Ltd, South Africa.
- 9. Advanced New Technology Energy Efficient Pumping Systems for Paper Plants. Prabhakaran Iyer, Director India; Vinod Narkhede, Senior Manager, Advance Pumping solutions; Venkatesh R., Sen. Eng.; Rod Wheel Technologies Private Limited, Chennai, India.
- 10. A status review of utilization of proven Advance Process Control technology in Pulp & Paper Industry. Adam Melton, Global Sales Director, Process Solutions, BTG Group, USA and Akhlesh Mathur, ASPAC Fiber Segment & SEA Sales Director, BTG Group, Singapore.
- 11. Paper pigmentation using a metered size press. Andrew Findlay, Janet Preston, Eli Gaskin and Matthew Duggan; Imerys Minerals Ltd., U.K.
- 12. Lighter paper and board materials through recent advances in the application of dry strength technology. Dr. Jan-Luiken Hemmes, Head of global Business Development Strength Additives, Jonas Konn, Vladimir Grigoriev, Mikko Virtanen, Kemira Chemicals GmbH, Frankfurt, Germany.

# Technical Session IV: Wood & Agro-based Papermaking (2.30pm to 5.00pm)

 High Power Recovery Boilers in India. Pekka Rikkinen, Director, Recovery Boilers and NCG, P&E Recovery, Valmet, Finland and Kari Haaga, Product Manager, P&E Recovery Boilers and NCG Boiler Solutions, Valmet, Finland.



- Potential growth challenges of Wood-based Paper Mills in India in the Coming Decade. P.K.Suri, Executive Vice President (Works), G.S.Patnaik, D.K.Tripathy and R.S.Patnaik, JK Paper Ltd., Unit: JK Paper Mills, Jaykaypur, Dist: Rayagada, Odisha, India.
- 15. Bagasse-based paper-making in the coming decade. Ganesh Bhadti, Vice President (Technical), Seshasayee Paper and Boards Limited, Unit Erode; Tamilnadu, India.
- 16. Solution to Raw Material Crisis in Wood Based Pulp and Paper Mills: Casuarina Clonal Technology. Dr. P. Sankaralingam and Dr. S. Subramanian; Tamilnadu Newsprint and Papers Limited, Kagithapurm, Karur, Tamilnadu, India.
- Improvement in Pulpwood Qualities through Focused Plantation Research & Development. N. K. Khanna, O. P. Shukla, Chief General Manager (RM), S. L. Narkhede and S.K.S. Chauhan; Plantation Division - Clonal Production and R&D complex; JK Paper Limited, Unit- CPM, Fort Songadh, Gujarat, India.
- Day 3 (Thursday, 5th December 2019) Technical Session V: Nano Materials (9.30 am to 11.00 am)
- 18. Impact of Synthetic Nano Materials on Economy, Energy and Environment in Paper and Board Industry. Dr. Vijay Mathur, Chairman and Chief Technical Officer, Pacific Nano Products, USA.
- 19. Microfibrillated cellulose: An innovative guide for the future bioproducts. Dr. Seema Saini, Research Engineer; Jalila Bachiri, Technical Centre Manager and Alain Lascar, Director Technology & Innovations; Kadant Lamort, Vitry-le- François, France.
- 20. Innovative instruments that supports the MFC production and industrialization. Didier Rech, TECHPAP SAS, Grenoble, France.

# Technical Session VI: Packaging and Board-making (11.30pm to 1.30pm)

- 21. Tailor-made Stretchable Papers and Deriving Composite Materials in the Packaging Industry in the Coming Decade. Mrs. Marion Sterner, Head of R&D Gruppo X di X Gruppo srl, Italy
- 22. Innovative cellulosic materials for Packaging application. D. Guérin, P. Martinez, C. L'ocre, F. Vercelli; Director of Customers Relations; Centre Technique du Papier, Grenoble, France.
- 23. Finishing aspects of paperboard cracking at the fold, varnish demand and laser marking. Janet Preston, Tony Hiorns, Michael Wasser and Andy Findlay; Imerys Minerals Ltd., U.K.

# Technical Session VII: Minerals and Printing (2.30 pm to 3.30 pm)

- 24. Innovations in PCC Applications to Support Sustainability. Amit Dholakiya, Yashika Saxena, Ishan Dholakiya, Sidharth Weley, Lotta Hirvikoski, Specialty Minerals Inc (SMI)- Business Segment of Minerals Technologies Inc (MTI), USA.
- Investigative Study on Paper Coating Binders and its Effect on Print Products. Kiran P. Prayagi; pmIndia-Graphic Arts Technology & Education; Consultant – EOC Tailor Made Polymers India (P) Ltd, Mumbai, India.

http://india.paperex-expo.com/Home



# Premier of ZELLCHEMING-Conference held prior to the ZELLCHEMING-Expo

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Just before the start of the ZELLCHEMING-Expo, taking place from 24 - 25 June 2020 in Frankfurt am Main, the ZELLCHEMING e.V. will be holding a conference in Darmstadt for the first time. The new event complements the existing ZELLCHEMING event offering a science-focused platform.

The ZELLCHEMING Conference will be held from 21 – 24 June 2020 in Darmstadt with the title "Cellulose-based Materials – from Science to Technology". The association ZELLCHEMING e.V. is cooperating with its technical committees and the Technical University of Darmstadt to provide an international knowledge platform, which will bring together researchers from science and industry interested in topics related to polysaccharides, paper-based materials and bioeconomics.

The scientific program, created by invited speakers, ranges from polysaccharide chemistry and paper chemistry to paper physics and paper technology.

The proximity to Frankfurt am Main makes it possible for the attendees to visit the ZELLCHEMING-Expo trade fair following the conference. On 24 June 2020, a coach will link the two locations so that participants can combine scientific knowledge with all the benefits of the exhibition, such as networking and gathering information on the latest trends and products.

Further information on the conference can be found at <u>www.zellcheming.de</u>.

#### Key players already registered for the ZELLCHEMING-Expo

Exhibitors along the entire paper value chain have already registered for the ZELLCHEMING-Expo, including ABB Automation GmbH, Andritz AG, Biomontan Produktions und Handels GmbH, fipptec, Kühne+Vogel GmbH, Servophil AG, Valmet and Wöllner GmbH.

#### The "Road of Maintenance" will take place once again

After the successful premiere in 2019, the "Road of Maintenance" will be held again next year. Providers of maintenance services will have the opportunity to present their products and services to users cost-efficiently and with maximum attention.

Further information about the exhibition is available at <u>www.zellcheming-expo.de</u>.