

# PITA Training & Conferences

Paper  
Industry  
Technical  
Association

Mark Smith presents . . .

## “PITA’s Introduction to Modern Wet End Chemistry”

*Everything you need to know about Colloid Chemistry on a Paper Machine*

**31st March & 1st April 2020 in the PITA Office (Bury)**



Mark gained a PhD in Colloid Science from the University of Bristol and then spent a few years in the oil industry before joining and working (*for over 30 years*) in Paper Industry. Having gained experience at McMillan Bloedel Research, Mead Central Research, UK Paper and Omya, he has been involved in problem-solving around Wet End Chemistry on Paper Machines around the world. By measuring colloidal properties and using these measurements, it is possible to solve a wide range of papermaking issues.

### Course Objective:

Gain an understanding of how colloidal materials can be used and controlled to give you desired paper properties and improved paper machine efficiency.

#### Day 1—Morning:

Understanding & measuring colloidal properties

- *What are colloidal materials*  
*How colloidal systems are stabilised & de-stabilised*  
*Measurements of colloidal properties & other related chemical properties*  
*Use of these measurements to improve paper machine operations*

#### Day 1—Afternoon:

Use of inorganic colloidal solids - Fillers

- *Type of fillers used in paper making*  
*Effect of fillers on paper properties & paper making*  
*Recent developments to maximise filler use*

#### Day 2—Morning:

Use of colloidal material to give desired paper properties

- *Strength additives*  
*Nanocellulose, starch, wet strength & dry strength additives*
- *Shade control, Dyes & DBAs*
- *Surface modifications additives*  
*Wet end size, size press & coatings*

#### Day 2—Afternoon

Control of colloidal material to improve paper machine efficiency

- *Control of undesirable colloidal materials*  
*Pitch, scaling & anionic trash*
- *Improve retention of desired colloidal material*  
*Retention & drainage aids*
- *Control of microbiological contaminants*
- *Yankee dryer chemistry*

**Only £650 (plus VAT) per person for the one day course, including full course notes, refreshments & six months complimentary membership of PITA**

**For further details or to book your place on this course, contact Helen in the PITA Office - (0300 3020 150 / [info@pita.co.uk](mailto:info@pita.co.uk))**



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