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Makerthon – fast-tracking ideas into solutions

To create a practical solution, a prototype has to be actually made before it can be tested, developed, and evolved. Only then can it be proven to have potential for future applications.

ANDRITZ Tissue and Automation Groups took up the challenge of being one of the industrial partners for the "Makerthon", presented by the Institute of Innovation and Industrial Management at the Graz University of Technology. The institute operates the Schumpeter Laboratory for Innovation, which has the very latest infrastructure and digital production machinery for rapid

The Winning Team: Yahia Alkhaldi, Rucai Wang, Henry Koothur with ANDRITZ (M. Menezes, T. Morgenbesser, K. Blechinger, C. Matejka) and TLI Graz (C. Ramsquer - A.F. Kahlweiss)





Thanks to all participants and partners of Makerthon #3 at the Institute of Innovation and Industrial Management, Graz University of Technology, May 15-17, 2019

prototyping as well as extensive multimedia and communication systems. This laboratory provided the optimum environment in which to host the Makerthon.

The Makerthon (Making + Marathon) is a new format to create not only new ideas for products, but also to realize physical prototypes within 48 hours. The teams, each of up to five international and interdisciplinary participants, have to understand the challenge given by ANDRITZ, detect the real issue, generate and select ideas, and then realize prototypes at the brand new Laboratory for Innovation. At the end of the process, they have five minutes to pitch their products and services to the jury and explain why their solution will change the business.

ANDRITZ Tissue and Automation introduced the challenges for "Smart Solutions for Industrial Plants" to the Makerthon teams. In the 48-hour workshop, the Makers were free to find ideas about products, technologies, concepts, services, or even new markets for "Condition Monitoring, Data Coordination or Complexity of parts". In the final "reveal", all teams presented different but impressive results, software, and prototypes for smart sensor and control systems, applicable on bearings, felts, and reel spools.

Judging criteria were "Degree of Innovation" (Value & Novelty), "Originality" (Wow-Effect), "Quality of Prototype", and "Pitching Performance". The winning team presented ANDRITZ its ideas

for a double sensor-based monitoring system, prediction software, and a pressure sensor for process monitoring (in the felt section).

ANDRITZ is an industry partner of the Institute of Innovation and Industrial Management at Graz University of Technology. Both partners gain and share knowledge and networks about trends in industrial innovation, research, and support of entrepreneurship by having collaborative workshops and events like the "Makerthon", "Product Innovation Projects", and many more.

Acquisition of KEMPULP enhances ANDRITZ's chemical pulping portfolio

In summer 2019, ANDRITZ acquired the Swedish company KEMPULP, a specialist in providing technologies and services for key chemical pulping processes such as washing, oxygen delignification, and bleaching. This acquisition enhances and expands the solutions ANDRITZ offers to pulp producers.

Former KEMPULP products and services complement ANDRITZ washing and MC-technologies – both for new plants and upgrades to existing lines. The company has a number of well-known products, most notably the COMPACT PRESS®, an advanced and well-established wash press.

The ANDRITZ DD-Washer based washing technology has gained a strong market position over the years, with hundreds of units operating on the world's largest fiberlines. The COMPACT PRESS technology will complement ANDRITZ's washing solutions, particularly in certain positions on washing lines where separate water circulations, reduced water consumption, reduced effluents, or higher discharge consistencies are important.

On the service side, ANDRITZ will continue to support existing KEMPULP customers with technical support, replacement parts,

and methods to upgrade the performance of existing products with minimal investment.

The KEMPULP team has now been integrated into ANDRITZ's Pulp & Paper organization. Most of the team is located in Karlstad, the heart of the forestry-based bioeconomy in Sweden. Members of the team collectively have decades of experience in the world of chemical pulping.



FlowScanner multifunctional device for optimizing pulp process performance

The FlowScanner is a unique device that combines a moisture meter, a weightometer, and a foreign object detector all inside one machine using advanced Dual X-ray technology. The main benefit of the device is the enabling of real-time feed-forward control of chips going into the pulp digester, resulting in increased stability, chemical savings, higher yields, and improved product quality. Foreign object detection also provides higher uptimes due to the avoidance of machine breakdowns and other disturbances in the process.

REAL-TIME KNOWLEDGE OF THE KEY PARAMETERS OF WOOD CHIPS

By integrating the FlowScanner data directly into the control system of the digester, the process can be adjusted on-demand to react to wood chip parameter variations. This brings more stability to the digester as well as to the whole fiberline and chemical cycle. The results are a better and more controlled end product quality, increased production, reduced fiber consumption, and chemical savings. Further savings can be achieved by increasing the uptime of the mill and reducing the costs of possible damage caused by foreign objects going into the digester parts. Thus, the payback time of investing in FlowScanner technology

can be significantly short. Numerous successful installations and satisfied customers prove FlowScanner to be a solid raw material analyzing solution and it complements ANDRITZ's Fiberline technology offering to further benefit customers.

ANDRITZ FlowScanner – Stop guessing, start knowing! andritz.com/flowscanner

