Lecture Series of the
Research Institute for Supply Chain Management

Friday, March 15, 2023, 12:30 pm

Room D3.0.225, Welthandelsplatz 1, 1020 Vienna



STEFANIE KRITZINGER-GRIEBLER, DOMINIK FALKNER & MANUEL SCHLENKRICH:

"SOLUTIONS FOR SUPPLY CHAIN CHALLENGES: APPLICATIONS OF MACHINE LEARNING AND METAHEURISTICS IN INDUSTRIAL PLANNING"

Research and development play a crucial role in ensuring the competitiveness of companies. Non-academic research institutions offer expertise in basic research for startups, application-oriented research and development, as well as engineering projects for international corporations, providing a wide range of opportunities to translate research findings directly into practice and develop innovative solutions for the challenges of our time. In this presentation, we aim to provide insights into two application-oriented projects: firstly, we will examine the integration of machine learning in supply chain management, and secondly, we will introduce a Tabu Search algorithm for real production planning problems.

Stefanie Kritzinger-Griebler graduated from the Master's program in Mathematics at Paris Lodron University Salzburg in 2008 as well as from the Abraham Wald PhD program in Statistics and Operations Research at the University of Vienna in 2014. During her PhD training, she was employed at the University of Vienna and Johannes Kepler University Linz as a project and university assistant, respectively, with subsequent lectureship until 2019. Since 2014, she has been working at RISC Software GmbH as a project manager and since 2019, she has been leading the Logistics Informatics unit. She has worked on or managed research and customer projects with the following focus areas, among others: Material Flow and Production Planning, Data Science in the industry, Forecast, Prognoses, Operations Research
Smart Mobility and Analytics.

Dominik Falkner holds the position of Data Scientist at RISC Software GmbH while pursuing a PhD at the Institute for Formal Models and Verification at Johannes Kepler University in Linz. Throughout his academic journey, he has actively contributed to diverse software systems, particularly those geared towards data collection and storage. Since 2019, Dominik has been an integral part of RISC Software GmbH, where he applies his expertise in data science to both customer-centric and research-oriented projects. His professional interests revolve around several key areas, including the integration of domain expertise with machine learning methodologies, predictive and prescriptive analytics, software system design and architecture, and time series analysis. Within his role, Dominik primarily focuses on conducting time series analyses and classification tasks spanning across various industries.

Manuel Schlenkrich is a mathematical optimization engineer at RISC Software GmbH and works towards his PhD at Johannes Kepler Unviersity Linz. After receiving degrees in technical mathematics and business administration, his research focus lies on the development of solution approaches for production planning and scheduling problems. His interests cover stochastic and robust optimization techniques, as well as metaheuristic algorithmic approaches for real-world applications.

For further information, please contact sekretariat.itl@wu.ac.at