UNIVERSITY OF PASSAU
Faculty of Business Administration and Economics

A cordial invitation to the third talk of the
Brown Bag Seminar
Recent Developments in Data Science:

Applied research in data science – Three examples

By
PD Dr. Michael Scholz

Date:	25.07.2022 (Monday) 12:00 – 13:30
Location:	HS 6 WIWI
Link and further information:	Course 39740 Seminar: Doctoral Seminar "Recent Developments in Data Science" in Stud.IP

Abstract:

Firms aim at using data science methods for making better business decisions and finally saving costs or increasing their revenues. Many firms, however, usually neither have the competencies nor the capacities to start and run data science projects. The problems of these firms often are complex and also interesting from a scientific point of view. I will briefly introduce three of such applied research projects and especially discuss how and which data science methods are used to tackle the firms' problems. The goal of the first project is to develop and evaluate algorithms for automatically extracting data from order documents. Several approaches mainly from pattern recognition and text mining are combined to extract order positions as well as meta-data from text-based and image-based order documents. The second project's goal is to develop an automatic process control framework for FFF 3D-printing that uses machine learning methods for detecting defects during the print process. A mathematical optimization problem is addressed in the third project. Its goal is to minimize waste when cutting out rings of different sizes from rectangular bins.

Speaker:

PD Dr. Michael Scholz

Michael Scholz is the head of the research team "Business Data Analytics and Optimization" at the Technology Campus Grafenau (Deggendorf Institute of Technology). His research is focused on designing and evaluating algorithms and software systems for analyzing business data. He is author of several papers in journals, such as the European Journal of Operational Research, Decision Support Systems, Journal of Statistical Software, Electronic Markets, and Business & Information Systems Engineering.