



Guest Lecture

Felix Wortmann

**Exploring the Potential of In-Vehicle
and Smartwatch Data Streams for
Improved Diabetes Management**

Tuesday, March 17, 2020, 2:00pm - 2:30pm, this lecture is part of
a webinar on Diabetes & Technology Management

www.c4dhi.org/webinar

About Felix Wortmann

Dr. Felix Wortmann is an assistant professor of technology management at the University of St. Gallen. He is also the scientific director of the Bosch IoT Lab, a research collaboration between Bosch, the University of St. Gallen and ETH Zurich. His research interests include the Internet of Things, machine learning, blockchain, and digital innovations in mobility, health, and energy. His work has appeared in international journals and conferences such as Journal of the Association for Information Systems, Decision Support Systems, ACM CHI Conference on Human Factors in Computing Systems, UbiComp and Transportation Research. Felix also has several years of industry experience in a German-based multinational software corporation. He received his bachelor's, master's and Ph.D. in Information Systems from WWU Münster and the University of St. Gallen, respectively. In his spare time he likes to spend time with his family. Furthermore, he enjoys outdoor activities such as hiking and mountaineering.

About the Lecture

Diabetes mellitus is a very common metabolic disorder. It affects approximately 460 million people worldwide and a near doubling of these cases is expected within the next 10 to 25 years. Despite ongoing developments in the treatment of diabetes mellitus, critically low (hypoglycemia) and high (hyperglycemia) blood glucose levels remain one of the most relevant, acute, and disabling complications for individuals with diabetes. This talk will be dedicated to hypoglycemia and hyperglycemia and present two early research projects that were started in 2019. The first research project aims at designing, implementing and evaluating an in-vehicle hypoglycemia warning system (Headwind). The overall goal of Headwind is to detect hypoglycemia in an early stage with a sensing module and then trigger direct interventions through a support module. For this purpose, Headwind draws upon current automotive sensor technology and innovative digital markers of vegetative function. The second research project is based on latest consumer smartwatch technology and is geared towards the sensing of hypoglycemia and hyperglycemia. In addition, the project aims to leverage explainable AI to provide individuals with diabetes meaningful decision support to manage their life more effectively.

We invite you to join this guest lecture. Registration is not required.

Prof. Dr. Tobias Kowatsch

Assistant Professor for Digital Health, University of St.Gallen (HSG)
Director, Center for Digital Health Interventions (CDHI), ETH Zürich & HSG

Prof. Dr. Elgar Fleisch

Professor of Information Management, ETH Zürich
Professor of Technology Management, HSG

Prof. David Kotz, PhD

International Paper Professor, Dartmouth College
Visiting Professor CDHI, ETH Zürich

Prof. Dr. Florian von Wangenheim

Professor of Technology Marketing, ETH Zürich