



THE UNIVERSITY OF HONG KONG

DEPARTMENT OF  
COMPUTER SCIENCE

# Research Seminar

## A Review of Data Science Approaches to Quality Control in Manufacturing

**Speaker: Prof. Dr.-Ing. habil. Bernhard Mitschang, Institute for Parallel and Distributed Systems (IPVS), University of Stuttgart**

**Date: 22 Aug 2024 (Thu)**

**Time: 10:30, HKT**

**Venue: RM308, Chow Yei Ching Building, HKU**

### Abstract:

Data in manufacturing are quite different to data in other domains, e.g., business or social. Data Science approaches directly depend on the data, hence different data ask for different approaches. This overview provides a list of important problems and challenges for data science approaches to quality control in manufacturing. We furthermore associate the identified problems and challenges to individual layers and components of a functional setup, as it can be found in manufacturing environments today. Additionally, we extend and revise this functional setup and propose a software architecture as a visionary blueprint with a focus on data science issues.

### Bio:

Bernhard Mitschang is a professor of Database and Information Systems and the head of the department 'Applications of Parallel and Distributed Systems' that is part of the Institute of Parallel and Distributed Systems at the Universität Stuttgart, Germany. Both research and teaching spectra of his department cover, on one hand, data-intensive applications, ranging from business applications to engineering systems, and, on the other hand, fundamental data management techniques, data analytics as well as scalable data processing architectures. He has been the CEO of the Graduate School of Excellence on advanced Manufacturing Engineering and the head of the Technology Partnership Lab at the university since 2013.

**All are welcome!**

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