

# **Title: Digital Transformation for Manufacturing Companies: How Can We Construct Knowledge and Information Systems?**

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## ***Abstract***

The digital transformation in manufacturing processes is crucial for intelligent manufacturing. The digitalization relies heavily on the information and knowledge management systems. Information systems are being developed and introduced to engineers to help and assist the manufacturing, especially at multi-locational companies. Investigating how companies configure the digital environment to fulfil engineers' information needs opens up a research topic for us. A well configured digital environment should be based on a clear understanding of how to fulfil engineers' needs and how to efficiently and effectively improve activities in manufacturing. A case study of four multi-locational company was conducted to investigate how companies configure information and knowledge management systems for their digital transformation. Primary data was collected in fieldwork visits to the companies by interviews and observations. The findings include strategic orientations, structures, organizational enablers and individual's capabilities in the digital environment of the case study companies. A new classification of information and knowledge management environment is proposed to understand the structural and operational features. The result provides insights on how manufacturing companies can configure their information and knowledge management systems for digital transformation.

***Keywords:*** *Digital Transformation; Information and Knowledge Management; Manufacturing*

## ***Biography***

Dr. Shuai Zhang is a Senior Lecturer, Fellow of Higher Education Academy, Certified Management & Business Educator. He got his B.Sc. from Huazhong University of Sci & Tech., B.Eng. from the University of Birmingham, M. Sc. from University College London, Ph.D. from the University of Cambridge. He held a Visiting Research Fellow position at Tsinghua University between 2020-2021. Currently his research interests include operational research, manufacturing digitalization, information systems and management.