TU Wien | IMW | Theresianumgasse 27 | 1040 Wien

Institut für Managementwissenschaften
Forschungsgruppe Smart and Knowledge-Based Maintenance (SKBM)
Dr.-Ing. Fazel Ansari
fazel.ansari@tuwien.ac.at

Bachelorarbeit (Bachelor Thesis)

The undergoing digitalization and automatization in manufacturing enterprises (aka Industry 4.0) raise the importance of data and data driven approaches. Focusing on value chain, especially on production and maintenance management, as cost intensive and data-driven areas, the target question is how to design, develop and employ artificial intelligence (AI) approaches for improving decision-making process considering various methods of Data Analysis, Data Exploration, Semantic Modeling and Process Mining.

Topic areas for a bachelor thesis are, but not limited to:

1) Literature analysis in industrial knowledge-modeling tools and platforms
2) Literature analysis in process modeling and -mining in maintenance
3) State of the art analysis in predictive and prescriptive maintenance
4) State of the art analysis in conversational AI and assistance systems

Highly motivated students with the background of Mechanical Engineering-Management (Wirtschaftsingenieurwesen-Maschinenbau) and Mechanical Engineering are encouraged to apply. Especially the topic suits ones with good background in principles of production management and industrial engineering and the motivation to learn systematic state of the art analysis in the interdisciplinary areas of maintenance and AI.

The thesis will be supervised by the Research Group of Smart and Knowledge-Based Maintenance.

The language of the thesis can be in German or English.