Master thesis / Bachelor thesis / Project work

Potential analysis for the use of artificial intelligence in the production of tomorrow

Initial situation:
The hype topic of artificial intelligence (AI) raises great hopes in production. Production processes are to be fundamentally changed and optimized by artificial intelligence. The term artificial intelligence is associated with a wide range of terms such as machine learning, digital twins and data analytics. The potential fields of application in production are also diverse and include, for example, start-up optimization, predictive maintenance and smart parameter settings. However, the entire potential, differentiated between the various AI approaches, has not yet been sufficiently differentiated and analyzed.

Requirements:
- Degree in engineering, computer science (or comparable)
- Structured way of working
- Good knowledge of PowerPoint, Word and Excel

Offered:
- Fast processing
- Delimited tasks and flexible processing
- Professional supervision and insight into industry and practice
- Independent implementation with consultation via Microsoft Teams

Interested?
Please send a current transcript of grades as well as your CV and references to the e-mail address below.

Your contact at the PEM:
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Your task:
Within the framework of your thesis, the overall task is to meaningfully cluster the different sub-disciplines of artificial intelligence based on a literature research and to analyze their potentials in the context of production. In particular, the area of machine learning, including the various applications in production, is to be worked out. Finally, real optimization approaches of artificial intelligence are to be demonstrated using the example of battery cell production and evaluated based on their potential.