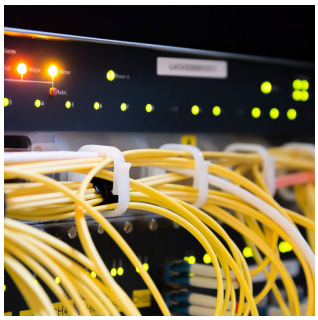
Institut für
Integrierte Produktion Hannover

Bachelor thesis, project thesis

Design and Prototype Implementation of a Dialog-Based User Interface

To lower the barriers to the implementation of AGVs in SMEs, the FTS-Ready project aims to develop a method based on a maturity model (MM). The MM assesses, based on the existing infrastructure, the extent to which SMEs meet the requirements for implementing AGVs and identifies any measures that need to be implemented beforehand. Furthermore, the method includes a decision-support tool designed to propose a vendor-neutral AGV solution based on given logistical requirements. The entire method is implemented in a software demonstrator.



Your tasks

- Structured research on dialogue-based assistance systems, user-based data collection, and relevant requirements in the context of automated guided vehicles (AGVs)
- Definition of the scope to be considered, as well as the required inputs and structured outputs for the dialogue
- Derivation of evaluation criteria for possible dialogue approaches
- Investigation and criteria-based comparison of suitable approaches, e.g., linear questioning, decision trees, rule-based dialogue, or model-based support
- Design of the dialog structure, including relevant questions, help texts, handling of unknown input, and plausibility checks
- Prototype implementation of the application, with output of a structured and machine-processable input profile
- Evaluation of the prototype based on defined use cases, as well as an assessment of the comprehensibility, consistency, and robustness of the user guidance

Your profile

You are studying one of the following subjects:

- Mechanical Engineering
- Mechatronics
- Industrial Engineering
- Sustainable Engineering
- Production and Logistics
- or a related field

You are interested in automation, data, etc., and are able to come up with good solutions on your own. Some experience with data analysis and software development is a plus. Good written and spoken German or English skills are required for the job.

We offer

- Independent work
- Flexible work hours
- Well-equipped workstations
- Work from home by arrangement
- Conducting experiments
- Long-term collaboration, if applicable

Bitte sende deine aussagekräftige Bewerbung in einer einzigen PDF-Datei an jobs@iph-hannover.de.

Die Bewerbung muss Anschreiben, Lebenslauf sowie Prüfungsleistungen des Studiums / Zeugnisse enthalten.

Contact

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