

Handout zum KI Skills Workshop der Plattform Industrie 4.0 am 23.10.2024

Präsentation „Digitale Kompetenzen als Erfolgsfaktor in Produktion und Logistik“

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Identifizierte Technologien in Produktion und Logistik (Woschank et al. 2021)¹

Data Science <ul style="list-style-type: none"> • Data Analytics • Data Mining • OR • AI, ML, DL • Big Data <p style="text-align: right;">1.1</p>	Virtual Environment <ul style="list-style-type: none"> • Digital Twin • Simulation • Augmented Reality • <u>Virtual Reality</u> <p style="text-align: right;">1.2</p>	IoT Devices <ul style="list-style-type: none"> • (Smart) Sensors • <u>System on a Chip</u> • Smart containers <p style="text-align: right;">1.3</p>
Automatic Identification <ul style="list-style-type: none"> • RFID • Barcode (linear, 2D, 3D) • <u>Contact Memory Button</u> • <u>Tunnel/portal scanning</u> • <u>OCR</u> <p style="text-align: right;">1.4</p>	CPS <ul style="list-style-type: none"> • CPLS • CPS-WMS • Cobot • Robotics • AGV <p style="text-align: right;">1.5</p>	Location <ul style="list-style-type: none"> • LIDAR • GPS • IPT • <u>GSM Location</u> <p style="text-align: right;">1.6</p>
Interfaces <ul style="list-style-type: none"> • EDI • System Integration • Electronic Document Flow • HMI • Machine 2 Machine Interface • <u>RPA</u> <p style="text-align: right;">1.7</p>	Decentralized Applications <ul style="list-style-type: none"> <li style="width: 50%;">• Cloud material handling <li style="width: 50%;">• XaaS <li style="width: 50%;">• Cloud Stored Data <li style="width: 50%;">• Blockchain <li style="width: 50%;">• Mobile End Devices <li style="width: 50%;">• IoT <li style="width: 50%;">• Collaborative Systems <li style="width: 50%;">• Cloud manufacturing <li style="width: 50%;">• <u>Edge Computing</u> <p style="text-align: right;">1.8</p>	

Identifizierte Kompetenzen in Produktion und Logistik (Pacher 2024)²

Digi_1	I can operate digital systems.
Digi_2	I am good at using digital systems.
Digi_3	I quickly learn how to use digital systems.
Digi_4	I find it easy to get used to new digital systems.
Digi_5	I am good at working with digital systems.
Digi_6	I quickly learn how and where digital data, information and content should be stored.
Digi_7	I can find digital data, information, and content to complete a task.
Digi_8	I can create digital data, information and content independently.
Digi_9	I am good at developing digital data, information and content.
Digi_10	I am a quick learner when it comes to interpreting digital data, information and content.
Digi_11	I know how to prepare digital data, information and content for others.
Digi_12	I know how to protect private data when dealing with digital systems.
Digi_13	I am a quick learner in terms of acquiring knowledge about security risks and measures in digital systems.
Digi_14	I know how to handle digital systems responsibly.
Digi_15	I know how to evaluate the quality of the digital data, information, and content I use.
Digi_16	I know how to evaluate the relevance of digital data, information and content.

Unterlagen zu aktuellen Forschungsprojekten

SME 4.0 (Digitalisierung und Digitale Transformation in Produktion und Logistik)	www.sme40.eu
SME 5.0 (Fokus: Intelligente, Nachhaltige und Human-Zentrierte Produktion und Logistik)	www.sme50.eu
EE4M: (Fokus: Ingenieur:innenausbildung der Zukunft in Produktion und Logistik)	www.ee4m.eu

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¹ Based on <http://www.ieomsociety.org/singapore2021/papers/257.pdf>

² Based on doi.org/10.1016/j.chbr.2021.100149