Contents

1 Adaptable Machining Process Identification based on Expert Knowledge and Artificial Intelligence Stefan-Andreas Böhm	1
2 Increasing Power Grid Resilience with a Multi-Agent System of Smart Buildings Mischa Ahrens	15
3 Towards a Semantic Description of Artificial DNA using Ontologies Aleksey Koschowoj	32
4 Transfer Learning as an Essential Tool for Digital Twins in Renewable Energy Systems Chandana Priya Nivarthi	47
5 Detecting Corner Case in the Context of Highly Automated Driving Florian Heidecker	60
6 Utilizing the Observer/Controller Architecture for a General Game AI Johannes Büttner	74
7 Actively Controlling and Redesigning Experiments using the Application Case of Free-Electron Laser Pulse Characterization Kristina Dingel	86
8 Evolution of machine learning algorithms in a marketplace-oriented environment Simon Reichhuber	99
9 Active Learning in Multivariate Time Series Anomaly Detection Zhixin Huang	13

10 Adaptive Explainable Continual Learning Framework for Regression Problems with Focus on Power Forecasts	
Yujiang He	. 125
11 A Multi-Layered User Guidance Framework	
Sooraj K. Babu	. 141
12 Stream-Based Active Learning in Changing Environments under	
Verification Latency	
Tuan Pham	. 152
13 Challenges of Robustness Evaluation of Interdependent Systems	
Ferdinand von Tüllenburg	. 165
14 Traffic Flow based Detection of Incidents in Urban Road Networks	
Ingo Thomsen	. 179