

Dynamic and Robust Distributed (Control) Systems – *An answer to complex Industry 4.0 demands*

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ABSTRACT

The presentation describes an approach to build and maintain distributed systems – with a focus on control systems. It employs both machine learning and formal verification techniques, targeting the creation of a scalable and resilient infrastructure, setting also solid grounds for autonomous operations. The main focus of the approach is the optimality of the resulting system implementation and the correctness of the operations with respect to overall system requirements and constraints. The approach successfully “marries” service-based, model-based, self-healing and network-centric concepts towards improving design time and ease of deployment, providing dynamicity during operations.