Data and AI-based Optimization of Complex Production Systems

Challenges

- The complexity of highly automated production systems poses significant challenges in optimizing operational efficiency and productivity
- Unexpected incidents, malfunctions and downtimes have significant negative impact on cost-efficiency and customer experience
- Troubleshooting and repair is difficult and time-consuming due to limited access to real-time and historical data on sensor level
- Manufacturing companies are seeking for additional revenue sources and new business models (e.g., performance-based contracts)

Solution

- Industrial IoT platform with real-time access to machine mass-data to optimize availability and productivity
- Rule- and workflow-based notification and alerting system to enable exception-based operation
- Built-in data processing, visualization and analytics to support pattern and anomaly detection, root-cause analysis and optimization strategies
- Device management and remote update capabilities

Business Outcome

- Reduction of downtimes, improvement of output and customer experience
- Reduction of service and maintenance cost
- Mitigation of the impact of skilled worker shortage
- Improved availability, productivity, overall total cost of ownership and profitability

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Published by

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