

SysInt 2018

Conference Program

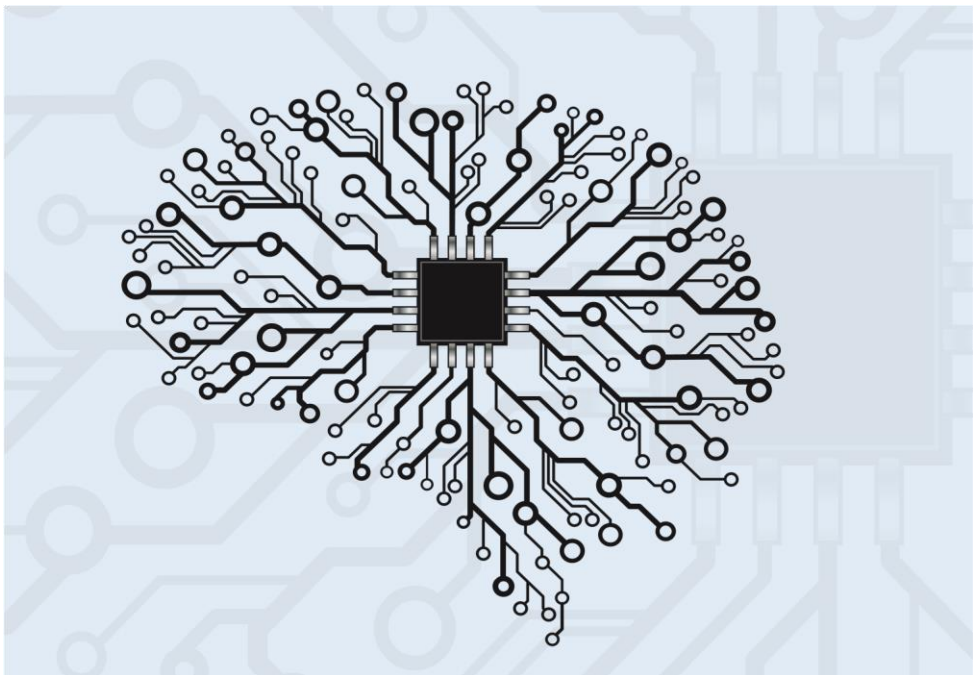
Tuesday, 19 June 2018		
8:00 AM	Registration & Welcome Coffee	
9:00 AM	Welcome & Introduction	
9:10 AM	Keynote: Prof. Wolfgang Nejdil, L3S Research Center Are you looking for an AI that works?	
	Logistics & Cyber-Physical Production Systems	Industry Session 1 (English)
10:00 AM	Intelligent workpiece carrier for distributed data collection and control in manufacturing environments <i>Walter Gasparetto, Georg Egger, Andrea Giusti, Erwin Rauch, Michael Riedl, Dominik T. Matt</i>	Application Scenarios of Artificial Intelligence in Electric Drives Production <i>Michael Weigelt, FAU Erlangen-Nürnberg</i>
10:20 AM	Intelligent control of an assembly station by integration of a digital twin for employees into the decentralized control system <i>Iris Graessler, Alexander Poehler</i>	Tools 4.0 – Intelligence starts on the cutting edge <i>Kim Torben Werkle, University of Stuttgart</i>
10:40 AM	Coffee Break	
11:00 AM	Keynote Dr. Dominik Rohrmus, Siemens AG	
11:30 AM	Optimization Model to Extend Existing Production Planning and Control Systems for the Use of Additive Manufacturing Technologies in the Industrial Production <i>Wjatscheslav Baumung, Vladislav V. Fomin</i>	Developing the Requirements of a PLM/ALM Integration: An Industrial Case Study <i>Andreas Deuter, OWL University of Applied Sciences</i>
11:50 AM	DeConSim - Decentralized Control Simulator for production systems <i>Rosario Davide D'Amico, Georg Egger, Andrea Giusti, Erwin Rauch, Michael Riedl, Dominik Matt</i>	Zum Thema semantische Beziehungen für die Industrie 4.0 <i>Prof. Sören Auer, Technische Informationsbibliothek</i>
12:10 PM	Automated OEE calculation with wireless sensor sets <i>Michael Rehe, Berend Denkena, Christian Wagener</i>	Material-Integrated Intelligent Systems: Update on the State of the Art <i>Dr. Dirk Lehmus, University of Bremen</i>
12:30 PM	Lunch Break and Technology Demonstrations in the IFW-Laboratory	

	Systems Engineering & Enabling Technology	Industry Session 2 (Deutsch)
03:00 PM	Model-Based Systems Engineering for Machine Tools and Production Systems (Model-Based Production Engineering) <i>Karl Kübler, Stefan Scheifele, Christian Scheifele, Oliver Riedel</i>	Software statt Geräte – Maschinenüberwachung skalierbar aus der Cloud Dr. Jan Brinkhaus, Geschäftsführer KOMET Brinkhaus GmbH
03:20 PM	Enabling Data Analytics in Large Scale Manufacturing <i>Achim Kampker, Heiner Hans Heimes, Ulrich Tobias Bühner, Christoph Lienemann, Stefan Krottil</i>	Retrofitting: Anbindung alter Maschinen an das Produktionsleitsystem Sören Adam, Geschäftsführer Rehm Dichtungen Ehlers GmbH
03:40 PM	Coffee Break	
04:00 PM	Self-describing connected components for live information access within production systems <i>David Barton, Philipp Gönnheimer, Jürgen Fleischer</i>	Potential von Low-Code Plattformen beim Datenmanagement im Rahmen von Industrie 4.0 Ralph Blome, Innovista Software GmbH
04:20 PM	Enhancing Expert Knowledge Based Cause-Effect Networks Using Continuous Production Data <i>Daniel Rippel, Michael Lütjen, Michael Freitag</i>	Assistenzsystem für die Montage Axel Schulz, Geschäftsführer SCHUBS GmbH
04:40 PM	Influence of strain on miniaturized flexible sensor for on-line monitoring of CFRP production <i>Martina Hübner, Daniel Gräbner, Aynur Özdemir, Walter Lang</i>	Wie Digitalisierung den Mittelstand verändern kann Philipp Becker, Prokurist Vision Lasertechnik für Forschung und Industrie GmbH
05:00 PM	End of Sessions	
06:00 PM	Leaving for Conference Dinner	

Wednesday, 20 June 2018

8:00 AM	Registration & Welcome Coffee	
9:00 AM	Welcome & Keynote Session <ul style="list-style-type: none"> - Prof. Paolo Ermanni, ETH Zürich - Karl-Ernst Vathauer, MSF-Vathauer Antriebstechnik GmbH 	
	Systems Engineering	Enabling Technologie
10:00 AM	Rapid-Control-Prototyping as part of Model-Based Development of Heat Pump Dryers Jens Holtkötter, Jan Michael, Christian Henke, Ansgar Trächtler, Marcos Bockholt, Andreas Möhlenkamp, Michael Katter	Improving cluster-based methods for usage anticipation by the application of data transformations Andres Auquilla, Yannick De Bock, Joost Duflou
10:20 AM	A Unified System Modelling and Programming Language based on JavaScript and a Semantic Type System Stefan Bosse	Use of RFID tags for monitoring resin flow and investigation of their influence on the mechanical properties of the composite Elisabeth Maria Hardi, Marius Veigt, Michael Koerd, Axel S. Herrmann, Michael Freitag
10:40 AM	Coffee Break	
11:00 AM	Using Transitive Relations for Automatic Creation of Consistent Traceability in Model-based Systems Engineering Atakan Sünnetcioglu, Rainer Stark	Curing Transponder – Integrating RFID transponder into glass fiber-reinforced composites to monitor the curing of the component Marius Veigt, Hardi Elisabeth, Koerd Michael, Herrmann Axel S., Freitag Michael
11:20 AM	Configuration based process and knowledge management by structuring the software landscape of global operating industrial enterprises with Microservices Eike Schäffer, Hannes Leibinger, Axel Stamm, Matthias Brossog, Jörg Franke	Development of a Handling System with integrated Sensors for Textile Preforms using Additive Manufacturing Michael Brink, Jan-Hendrik Ohlendorf, Klaus-Dieter Thoben
11:40 AM	Specification Technique for Virtual Testbeds in Space Robotics Ruslan Bernijazov, Michael Hillebrand, Christian Bremer, Lydia Kaiser, Roman Dumitrescu	Evaluation of an energy self-sufficient sensor for monitoring marine gearboxes Tobias Schneider, Thomas Kruse, Benjamin Küster, Malte Stonis, Ludger Overmeyer

12:00 AM	<p>Systematic Development of Smart Factory using CONSENS</p> <p>Cheng Yee Low</p>	<p>Simultaneous Measurement of Strain and Temperature with two Resistive Strain Gauges made from Different Materials</p> <p>Daniel Gräßner, Gerrit Dumstorff, Walter Lang</p>
12:20 PM	Lunch	
	Enabling Technologies	Enabling Technologies
01:00 PM	<p>Feature model for the specification of industrial indoor location-based services (I²LBS)</p> <p>Tommy Falkowski, Christoph Jürgehake, Harald Anacker, Roman Dumitrescu</p>	<p>Framework for the agile development of innovative Product-Service-Systems for existing physical rehabilitation systems</p> <p>Laban Asmar, Martin Rabe, Arno Kühn, Roman Dumitrescu</p>
01:20 PM	<p>Low power sensor node with photovoltaic power supply for radio-based process monitoring</p> <p>Christoph von der Ahe, Bernard Lüers, Ludger Overmeyer, Bernd Geck, Tobias Fürtjes</p>	<p>Testing Lora for food applications - Example application for airflow measurements inside cooled warehouses with apples</p> <p>Reiner Jedermann, Mykhailo Borysov, Nico Hartgenbusch, Sylvo Jaeger, Marc Sellwig, Walter Lang</p>



01:40 PM	Poster Session	
	Integrating sensors in castings made of aluminum – new approaches for direct sensor integration in gravity die casting Rico Tiedemann , <i>Martin Fischer, Matthias Busse, Walter Lang</i>	Screw Torque Traceability Control Iracyanne Retto Uhlmann, Carlos Américo de Souza Silva, Enzo Morosini Frazzon
	A case study for a unified designation of development information in a PDM System for Technical Inheritance Wieben Scheidel , <i>Iryna Mozgova</i>	Scenario-based Application of Data Analytics in the Internet of Production with the Example of Order Tracing through BLE-Beacons <i>Sebastian Groggert, Hannes Elser, Quoc Hao Ngo, Robert H. Schmitt</i>
	Generating Correct, Compact, and Efficient PLC Code from Scenario-based Assume-Guarantee Specifications Daniel Gritzner , <i>Joel Greenyer</i>	Process-parallel center deviation measurement of a BTA deep-hole drilling tool <i>Sebastian Kaiser, Berend Denkena, Benjamin Bergmann, Dieter Bolle, Markus Mücke</i>
	Simulation-Based Optimization for Integrated Production and Logistics Planning: A Performance Comparison <i>Matheus Cardoso Pires, Enzo Morosini Frazzon, Apolo Mund Carreirão Danielli, Iracyanne Retto Uhlmann, Mirko Kück, Michael Freitag</i>	Thermal analysis of perforated pinfins heat sink under forced convection condition Alhassan Salami Tijani
	Challenges and Opportunities for Intelligent Systems and Smart Factories in Rural Regions - South Tyrol as an example Michael Brink , <i>Frank Berkemeyer, Jan-Hendrik Ohlendorf, Gerrit Dumstorff, Klaus-Dieter Thoben, Walter Lang</i>	Hybrid Spindle – An approach for a milling machine tool spindle with extended working range for HSC and HPC <i>Berend Denkena, Bernd Ponick, Benjamin Bergmann, Markus Mücke, Jan Königsberg</i>
	Nonlinear Hysteresis Compensation via an Adaptive Extended Discrete-Prescribed Performance Control <i>Mohd Hanif Mohd Ramli, Mohd Azuwan Mat Dzahir, Noor Ayuni Che Zakaria</i>	Concept for the Implementation of a Scaling Strategy into the Paradigm of Technical Inheritance Philipp Wolniak , <i>Iryna Mozgova, Roland Lachmayer</i>
	A multi-physics simulation approach for energy and cost analysis during the deceleration of high-speed trains David Meinel , <i>Tallal Javied, Sebastian Rast, Christian Zipp, Jörg Franke</i>	Challenges and Opportunities of RFID Sensortags Integration by Fibre-Reinforced Plastic Components Production Dieter Steiner , <i>Riccardo Brozzi, Andrea Giusti, Michael Riedl, Dominik T. Matt1</i>
02:40 PM	Coffee Break	

	Robotics & Human-Machine-Interaction	Structural Health Monitoring
03:00 PM	Smart Human-Robot-Collaboration in Mechanical Joining Processes Jens Meißner , <i>Frederik Schmatz, Florian Beuß, Jan Sender, Wilko Flügge, Eugen Gorr</i>	Cluster identification of sensor data for predictive maintenance in a Selective Laser Melting machine tool Eckart Uhlmann , Rodrigo Pastl Pontes , <i>Claudio Geisert, Eckhard Hohwieler</i>
03:20 PM	Concept And Design Of A Spherical Joint Mechanism For Service Robots Tim Fröhlich , <i>Ulrich Reiser, Felix Meßmer, Alexander Verl</i>	Mobile Automated Diagnostics of Stress State and Residual Life Prediction for a Component under Intensive Random Dynamic Loads Iryna Mozgova , <i>Ihor Yanchevskyi, Mykola Gerasymenko, Roland Lachmayer</i>
03:40 PM	Comparison of EEG Data Classification between Conventional Visual CueMarker and EMG-Based Marker on Brain Activity <i>Khairunnisa Johar</i> , Noor Ayuni Che Zakaria , Muhammad Azmi Ayub , <i>Cheng Yee Low, Fazah Akhtar Hanapiah</i>	Investigation on the influence of material interfaces and impedance changes on the propagation of guided waves in laminated steel layers Liv Rittmeier , <i>Tobias Losch, Michael Sinapius, Rolf Lammering</i>
04:00 PM	A Reinforcement Learning Strategy for the Swing-Up of the Double Pendulum on a Cart Michael Hesse , <i>Julia Timmermann, Eyke Hüllermeier, Ansgar Trächtler</i>	Wireless Online Impact Source Localization on a Composite Sarah Aguasvivas Manzano , <i>Dana Hughes, Nikolaus Correll</i>
04:20 PM	End of Day	



SysInt

**4th International Conference on
System-Integrated Intelligence**

**Intelligent, flexible and connected
systems in products and production**