



The Upper-Rhine Artificial Intelligence Symposium 2020

Preliminary Programme as of 04/01/2020

- 10:00 Welcoming Speech
 Prof. Dr. Frank Artinger, President of Karlsruhe University of Applied Sciences
 Prof. Dr. Crispino Bergamaschi, President of the University of Applied Sciences Northwestern Switzerland and Speaker of the TriRheNaTech Alliance
- 10:15 Keynote Ulrich Steinbach, Head of Department of Ministry of Science, Research and the Arts of the State of Baden-Württemberg
- 10:30 Keynote Lilla Merabet, Vice-President of the Grand Est region
- 10:45 Keynote Bärbel Schäfer, District President Freiburg and Speaker of the Politics Pillar of the Trinational Metropolitan Region of the Upper Rhine
- 11:00 Invited Papers
 'AI for Autonomous Driving' (working title) Prof. Dr. Didier Stricker, German Research Center for Artificial Intelligence Kaiserslautern
 'Speech Processing and Speech Translation for Industrial Application' Dr. Sebastian Stüker, Karlsruhe Information Technology Solutions - kites GmbH
- 11:50 Panel Discussion on 'Artificial Intelligence - Research Impact on Key Industries'
- 12:45 Lunch / Poster / Exhibition
 A New Approach to Gesture Based Real-Time Robot Programming Using Mixed Reality / Luisa Hornung, Simon Lawo and Christian Wurl, UAS Karlsruhe
 Cloud-, Edge- and FPGA-Computing for Context Aware Switching of Deep Neural Networks in Mobile 3D-Multi-Sensor Systems / Grischan Engel, Faraz Bhatti, Thomas Greiner, Michael Heizmann and Franz Quint, UAS Pforzheim, KIT Karlsruhe, UAS Karlsruhe
 Defining a Context Model for Smart Manufacturing / Swenja Sawilla, Naemi Gerst and Thomas Schlegel, UAS Karlsruhe
 Deployment of a CATI-based Tool for the Prediction of Interest in a Blasting Process Digitization as Sales Support / Dennis Richter, Peter Zimmermann and Steffen Kinkel. UAS Karlsruhe
 Inverse Process-Structure-Property Mapping / Johannes Dornheim, Tarek Iraki and Norbert Link, UAS Karlsruhe
 Supporting Quality Assessment in Manufacturing by Machine Learning: First Results of PREFERML Project / Alexander Gerling, Alaa Saleh, Ulf Schreier and Holger Ziekow, UAS Furtwangen
 Towards Classification and Prediction of Stress Patterns using Multiple Physiological Signals / Eliza Kern de Castro, Rodrigo Marques Figueiredo, Ana Paula Mallmann, Sandro José Rigo, Leandro Rosa, Clarissa Almeida Rodrigues, Nicolas Rohleder, Bjoern Skofier, University of Vale do Rio dos Sinos, University of Erlangen-Nuremberg
- 14:00 3-4 Parallel Sessions with 4 Expert Lectures each



AI-Powered Analysis of Industrial CT Data / Tim Schanz, Robin Tenscher-Philipp and Martin Simon, UAS Karlsruhe

Artificial Intelligence Assisted Creation: Fostering Inspiration & Raising Moral Threads / Matthias Wölfel, UAS Karlsruhe

Augmented Reality in the Operating Room for Neurosurgical Interventions / Christian Kunz, Franziska Mathis-Ullrich and Björn Hein, UAS Karlsruhe

Classification of Maritime Vessels using Convolutional Neural Networks / Mathias Anneken, Moritz Strenger, Sebastian Robert and Jürgen Beyerer, KIT Karlsruhe, Fraunhofer

Comparison of CNN for the detection of small objects based on the example of components on an assembly table / Madlon Pécaut, Jonas Hansert and Thomas Schlegel, UAS Karlsruhe

Data Analytics at Siemens Digital Enterprise Labs / Konrad Griebinger, Claus Neubauer, Siemens AG

Evaluating Data Augmentation Methods on Training a CNN model for Detecting Surgical Tools / Tamer Abdalbaki Alshirbaji, Ning Ding, Nour Aldeen Jalal and Knut Möller, UAS Furtwangen

Learning to Walk With Toes / Jens Fischer and Klaus Dorer, UAS Offenburg

Machine Learning as a Tool for Engineers / Alexander Hanuschkin, Mercedes-Benz, Group Research

Machine Learning assisted Alcoholic Beverage Classification for Retail / Christian Schorr and Rolf Krieger, UAS Trier

Optical 3D Object Recognition for Automated Driving / Raphael Schwarz, Marin Marinov and Stefan Hensel, UAS Offenburg, TU of Sofia

Research: Functional Safety in field of Artificial Intelligence / Ossmane Krini, DHBW Lörrach

Scene-Adaptive Depth Sensor Networks / Samuel Zeitvogel, Johannes Wetzel and Astrid Laubenheimer, UAS Karlsruhe

Validation of Continuously Learning AI/ML Systems in Medical Devices – A Scenario-based Analysis / Martin Haimerl, UAS Furtwangen

15:30 Coffee Break

16:00 Outlook Lecture on Quantum Computing by Dr. Iris Schwenk, COO at HQS Quantum Simulations GmbH

16:30 Closing Remarks

16:45 End