



Scientific Program
6th of March, 2024, AM 3

8:30	Registration	
9:30	Welcome	
Session 1 - Track C		
AI 1		
Time	Chair: Dr. Jan Ehrhardt	
9:45	30	<i>Jan Meyer, Christian Janorschke</i>
		Self-Supervised DEnoising UltraSound Network (DEUS-Net)
10:00	61	<i>Michelle Diez, Philip Gouverneur, Marco Bazzani, Marcin Grzegorzec</i>
		Stress Classification with a Deep Neural Network using Electrodermal Activity and Blood Volume Pulse
10:15	78	<i>Lara Presser, Jasper Diesel, Mattias Heinrich</i>
		A Template-Based Region Proposal Approach for Two-Stage Object Detection in Point Clouds
10:30	48	<i>Sazid Rahman Simanto, Fabian Domberg, Georg Schildbach</i>
		Reward Function Design for End-to-end Off-road Autonomous Simulator
10:45	118	<i>Suneesh Omanakuttan Sumesh Nivas</i>
		Obstacle Avoidance of MONSUN AUV Using SONAR
11:00	87	<i>Solveig Thrun, Stine Hansen, Robert Jenssen, Michael Kampffmeyer, Maik Stille</i>
		Leveraging complementary labels in breast cancer segmentation on mammography data: An in-depth analysis
11:15	Coffee Break	
11:30	Postersession 1	
12:30	Lunch Break	
Session 2 - Track C		
AI 2		
Time	Chair: Ezzat Elmoujarkach	
13:30	34	<i>Benedikt Stepanek, Lukas Boudnik</i>
		Efficient Processing of Multi-Channel sEMG With Neural Networks on Mobile Hardware
13:45	94	<i>Eike Schultz</i>
		Using Computer Vision for Inventory Management
14:00	125	<i>Sadra Nasiri, Foti Coleca, Erhardt Barth</i>
		Developing a Camera-based Hands-on Detection System for the Steering Wheel Using OpenPose Library
14:15	28	<i>Leon Dietrich, Ahmed Mahmoudi, Mladen Berekovic</i>
		Exploring neural network acceleration using Gemmini
14:30	22	<i>Lukas Groth, Saleh Mulhem, Mladen Berekovic</i>
		Efficient Inference Hardware Acceleration of the Yolov5s Object Detection Model at the Edge
14:45	Coffee Break	
15:00	Postersession 2	



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Session 3 - Track C		
Psychology 1		
Time	Chair: Prof. Ulrike Krämer	
9:00	107	<i>Svea Kaduk, Fabienne Aust, Lena Heinemann, Maik Holtz, Vera Hagemann, Corinna Peifer</i>
		Researching the Effect of Collective Efficacy on Team Flow in High Responsibility Teams: A Focus on Firefighting Operations
9:15	108	<i>Ricus Gattermann, Sarah Jessen</i>
		Influence of a multimodal stimulus presentation on emotion perception
9:30	109	<i>Karl Benjamin Bieber, Kirsten Handschuch, Fabienne Aust, Corinna Peifer</i>
		The Relationship between Work-Related Stressors, Flow and the Role of Strengths Use
9:45	110	<i>Maja Fritz Saidl, Marcus Heldmann, Baldrun Köhncke</i>
		Factorial structure in Executive Functions: A replication study
10:00	121	<i>Gerwin Akpadji, Ulrike Krämer, Martin Göttlich, Emily Fitzgibbon</i>
		Analysing the neural foundations of ego- and altercentricity bias and their association with judgement of emotional states
10:15	Coffee Break	
10:30	Postersession 3	
Session 4 - Track C		
Psychology 2		
Time	Chair: Prof. Nico Bunzeck	
11:30	36	<i>Vivian Mohr, Lisa Marshall</i>
		Local variations in ultrafine particles – A pilot study –
11:45	59	<i>Elise Sophie Banach, Markus Gödker</i>
		Assessing Driving Situation Complexity: Development and Pilot Evaluation of a Short Questionnaire with Traffic Psychology Experts
12:00	69	<i>Anne Tichy, Mourad Zoubir</i>
		Development and Validation of the Preference for Automation Adaption Scale (PAAS)
12:15	104	<i>Luisa Winzer, Tim Schrills</i>
		Assessing the Impact of AI Capability Feedback and Reliability in LLM-Assisted Error Detection
12:30	129	<i>Emily Leah Fitzgibbon, Ulrike Krämer, Martin Göttlich, Gerwin Akpadji</i>
		Investigating right supramarginal gyrus activations and behavioral scores in the FFEEB-paradigm
12:45	Lunch Break	
13:45	Postersession 4	
14:45	Group Picture	
15:00	Coffee Break	



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Session 5 - Track C		
Medical Imaging 1		
Time	Chair: Prof. Matthias Gräser	
15:15	20	<i>Frauke H. Niebel, Jorge Chacon-Caldera, Alex C. Barksdale, Monika Sliwiak, Lawrence L. Wald, Matthias Graeser</i>
		Design, assembly, and validation of a magnetic particle imaging low-noise amplifier
15:30	47	<i>Nitish Panchpor, Ankit Malhotra, Agnes Weimer, Kerstin Lüdtke-Buzug</i>
		Pilot Study for Coating of Superparamagnetic Iron Oxide Nanoparticles using Single Emulsion
15:45	57	<i>Rebecca Kantorek, Hong Phuc Vo, Steven Seeger, Jorge Roser, Magdalena Rafecas</i>
		Detector Efficiency Correction for the MERMAID Scanner Prototype
16:00	90	<i>Simeon Placzek, Andreas Deresch</i>
		X-Ray Spectrometry with Photon Counting Detectors
16:15	18	<i>David Melenberg, Nele Blum, Thorsten M. Buzug, Maik Stille</i>
		Cinematic Rendering Methods of Dental-CBCT-Data using Visualization Toolkit



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Session 6 - Track C		
Medical Imaging 2		
Time	Chair: Prof. Heinz Handels	
9:00	111	<i>Sai Pavan Kumar Reddy Nusuma, Marian Himstedt</i>
		VTK-Enabled Depth Rendering for Enhanced Bronchoscopy Guidance Using CT Images
9:15	19	<i>Hassan Shayeaa, Christian Weihsbach, Ziad Al-Haj Hemidi, Mattias P. Heinrich</i>
		Examining the synthesization of physically plausible MRI images
9:30	114	<i>Ahmad Mohammad, Lasse Hansen, Mattias P. Heinrich</i>
		Enhancing 3D Ultrasound Reconstruction: A Comparative Analysis Using IMU Data
9:45	15	<i>Jasmin Katz, Sofija Engelson, Nele Brügge, Heinz Handels</i>
		Detection of Pathological Mediastinal Lymph Nodes with Multiple-Instance Learning: A Proof-of-concept using Synthetic Data
10:00	43	<i>Rebecca Köhler, Leonard Wägele</i>
		Automatic prostate MRI sequence identifier based on image features
10:15	Coffee Break	
Session 7 - Track C		
Biochemical Physics		
Time	Chair: Prof. Christian Hübner	
10:30	11	<i>Svea J. Wilken, Gillian Cadde, Steven W. Magennis</i>
		Structures and dynamics of DNA three-way junctions: The role of interrupts in hairpins formed by CAG repeats
10:45	17	<i>Yannik Kasprzak, Jessica Rückert, Niclas Ludolph, Hauke Paulsen</i>
		Investigation of different reaction coordinates in MD simulations of the Ala9 peptide at different pressures and temperatures
11:00	95	<i>Thore Viemann, Janosch Kappel, Christian Hübner</i>
		Construction of a short dead-time small volume stopped-flow system for kinetics reactions
11:15	113	<i>Elena Romiana Schütte, Christian Rönnaau, Christian Hübner</i>
		An optimised small-scale ninhydrin-based assay for the quantification of amines on aminosilanised coverslips
11:30	63	<i>Marie C. Wetzel, Janina Nandy, Christian Nehls</i>
		Microfluidic production of water-in-oil droplets
11:45	77	<i>Jasmin Handel, Shouguang Huang, Rainer Hedrich, Young-Hwa Song</i>
		Wounding induces sequential pinna movement in Mimosa Pudica
12:00	Lunch Break	
13:00	Postersession Jury	



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Session 8 - Track C		
Image Processing		
Time	Chair: Prof. Martin Koch	
13:50	16	<i>Vincent Raphael Jansen, Ahmed Mahmoudi</i>
		Are Transformers Better KITTI Detectors Than YOLO?: A Comparative Study of Object Detectors for Mobile Applications
14:05	44	<i>Maria Angela Qato</i>
		Magnetic Particle Imaging, Quantification and Reduction of Artefacts for non-ideal FFL Positions
14:20	46	<i>Bansari Shah</i>
		Quantifying Spatial Resolution in Magnetic Particle Imaging Through Analysis of FFL Sinogram Data
14:35	84	<i>Felicia Bader, Georg Wolf, Alexandra Eberenz, Georg Männel, Mattias Heinrich, Freshta Malekzada, Michael Thomaschewski, Jannis Hagenah</i>
		Detection of Repetitive Phases in Surgical Training Videos
14:50	45	<i>Leander Busch</i>
		Detection and Recognition of Racing Bib Numbers
15:05	Coffee Break	
15:20	Award Presentation and Farewell	