Track A – AM 2

Track B – AM 3

		Image Processing 2 Chair: Prof Dr. Magdalena Rafecas		Safety and Quality Chair: Prof. Dr. Folker Spitzenberger
8:30	8	*D. Budelmann, L. König, N. Papenberg, J. Lellmann* GPU-accelerated 3D Image Registration - Balancing Runtime and Memory Use	70	*A. K. Chaudhary* Analysis and finalization of an international guidance document as harmonized approach for a biosafety and biosecurity regulatory framework with regard to biomedical laboratories
8:42	25	*F. Prüß, B. Hofstätter* Relationship Between Anatomical Parameters of the Shoulder and Deformities - a Feasibility Study Based on 3D Shoulder Models	94	*C. Jesse* Creation of a Process Flow for the Reuse of Intact Components Installed in Assemblies which Failed in Production
8:54	64	*M. Wernke-Schmiesing, J.-P. Aben, T. M. Buzug* Fusion of a 3D reconstruction based on biplane angiographic images and intravascular optical coherence tomography	33	*J. Patel* Design and implementation of the conformity assessment procedure for a novel medical device
9:06	98	*W. Khiosapjaroen, S. Ipsen* Real-time target localization in 4D ultrasound for motion compensation in radiotherapy	58	*N. Wigwe* Proposal for a Regulatory Strategy for Market Access of a CE-marked Dental Implant System in Taiwan
9:18	2	*P. Lux, J. Diesel, M. P. Heinrich* 2D Image Registration for Transforming Segmentation Masks within a Multi-Modal Camera Setup	69	*N. Shah* Evaluation of the design and development procedure for a novel IVD medical device used for molecular diagnostic testing with regard to international regulatory requirements
9:30	53	*S. Löding, T. Klähn, E. Barth* Construction of a Boosted Regression Forest to predict anthropometric measurements of persons seated in a car	55	*M.-S. Strauß* Process optimization of the SOP 8.2 008 - Execution of inspections for the verification of manufacturing processes as part of the production release -
9:42		**Coffee Break**		
		Image Processing 3 Chair: Prof. Dr. Heinz Handels		Auditory Technology 1 Chair: Prof. Dr. Alfred Mertins
10:00	66	*L. Spahl, J. Lotz, N. Weiss* Landmark-Based Pre-Alignment and Visualization of Histological Image Registration in a Web Application	77	*D. von Holten, T. Jürgens, M. Beuchert, N. Hildebrand* Hearing aid adjustments with a smartphone app in different acoustic environments
10:12	18	*M. Siebert, L. Hansen, J. Diesel, M. P. Heinrich* Human Pose Estimation with Hourglass Network and Convolutional Autoencoder	76	*S. Kahl, T. Jürgens* Algorithm evaluation with the open Master Hearing Aid – Implementation and comparison of an open-access audio signal processing platform –

Scientific Program
Friday March 8, 2019

		Track A – AM 2			Track B – AM 3
10:24	37	*N. Bockelmann, D. Krüger, J. Moosmann, M. P. Heinrich* U-Net-based Segmentation of Biodegradable Bone Implants in Synchrotron Radiation Microtomograms with Sparse Annotations		80	*M. Engler, H. Meister, T. Jürgens* Audiovisual Integration during Speech Reception with Simulated Bimodal Cochlear Implant Users
10:36	21	*S. Zimmer, T. Sparborth, H. Handels* Implementation of automatic marker recognition in real time in a learning software for medical training simulators		71	*S. Müller, T. Jürgens, V. Kühnel* Evaluation of a Laboratory Setup to measure Sound Localization Accuracy in Realistic Acoustic Sceneries
10:48	49	*B. Rosin, M. Wagner, M. Bieberle, T. M. Buzug* Total Variation Image Reconstruction for Ultrafast Electron Beam X-ray Computed Tomography		68	*M. Schinnerl, M. Frenz, F. Gassenmeyer, H. Husstedt* Procedure with self Adjustment to measure the minimum Time needed for Identifying Sound Samples
11:00	74	*M. Hillemanns, T. Käster, T. Martinetz* Boosting Image Classification through a Region Of Interest guided approach		93	*D. Bank, M. Schinnerl, M. Frenz, F. Gassenmeyer, H. Husstedt* Duration Threshold for Identifying Sound Samples of Elderly Hearing Impaired
11:12		**Coffee Break**			

		Signal Processing 1 Chair: Prof. Dr. Alfred Mertins			**Auditory Technology 2** Chair: Prof. Dr. Jonas Obleser
11:30	13	*M. Angern, T. Handzsuj, A. Madany Mamlouk* Automated sEMG Data Evaluation Using One-Class SVMs		73	*R. Stemmler, M. Kallinger* Acoustic Dampening Introduced by an Earmold in an Artificial Auditory Canal Compared to a Human Auditory Canal
11:42	38	*P. Probst, P. Koch, A. Mertins* Classification of Hand Movements with Recurrent Neural Networks Using sEMG Data Recorded Over Multiple Days		51	*S. Wollermann, P. Koch, A. Mertins* Neural Networks for Extrapolation of Room Impulse Responses
11:54	39	*P. Stagge, P. Rostalski* Test equipment for sEMG amplifiers – Building a simulator by using an audio device –		52	*A. Ruhe, R. Mazur, M. Böhme, A. Mertins* A Perceptual Evaluation of Algorithms for Room Impulse Response Equalization
12:06	99	*J. Otokwala* Data Science in a Biomedical Task: A Demonstration of Clustering Analysis of ECG Data		10	*J.-H. Wolf, M. Orf, J. Kreitewolf, L. Fiedler, J. Obleser* Virtual sound source localization using two different amplitude panning methods in the horizontal plane
12:18	50	*E. Aderhold, A. Nawaz, C. Herzog* Kalman Filter-Based Fault Diagnosis using Gaussian Mixture Message Passing on Factor Graphs		9	*M. Orf, J.-H. Wolf, J. Kreitewolf, L. Fiedler, J. Obleser* Generating and validating of moving sounds in a spatial loudspeaker setup
12:30		**Lunch**			

	Track A – AM 2		Track B – AM 3
	Signal Processing 2 Chair: Dr. Alexander Neumann		**Radio Technology and Locating** Chair: Prof. Dr. Horst Hellbrück
13:30	48 *E. Brockmüller, G. Männel, H. S. Abbas* Parameter Identification and Controller Design of a Ball Balancing Robot in Simulation	46	*C. Trejo, M. Cimdins, H. Hellbrück* Phase Error Correction for IEEE 802.11 Channel State Information
13:42	96 *V. Seemann, E. Petersen* A novel technique for the visualization of breathing effort during mechanical ventilation	81	*B. Matthews, M. Cimdins, H. Hellbrück* Improvements to UWB Channel Impulse Response Measurements for Indoor Localization
13:54	43 *O. Thomsen, A. Oetting, F. Sattler, J. Dannemann, P. Rostalski* A Model to Investigate Non-Invasive Core Body Temperature Measurement for Physiological Strain Monitoring	91	*M. Hadler, M. Cimdins, H. Hellbrück* Investigation of the Message Delay in Wireless Sensor Networks
14:06	67 *L. Jud, J. Graßhoff* Detection and Removal of Cardiogenic Artifacts in Esophageal Pressure Recordings	75	*D. Wilschewsky, S. Leugner, H. Hellbrück* Suitable Path Loss Model for LoRa networks in suburban areas
14:18	84 *G. Seidel, P. Rostalski, M. Görges* Feasibility of Automated Vital Sign Instability Detection in Children Admitted to the Pediatric Intensive Care Unit using Variability and Vital Sign Change Indices	83	*T. Geiger, M. Constapel, H. Hellbrück* Recurrent Neural Network for Sequence Classification of mmWave Radar Data
14:30	**Coffee Break + Poster-Session**		
15:00	**Farewell and Award Presentation**		