

Scientific Program
2nd of March, 2023, AM 3

Session 1 - Track C		
Biomedical Engineering 1		
Time	Chair: Prof. Dr. Stephan Klein	
9:00	79	<i>I. Alhasan</i> Benchmarking of surgical lights
9:12	92	<i>O. A. Kostyuk, F. Moreira, Y. Guerrero</i> Assembly of an electrochemical biosensor for the detection of Tau
9:24	78	<i>A. Abdallah, B. Kern, S. Müller</i> Concept development for safe operation of a mobile blood analyzer in harsh environments
9:36	47	<i>B. Kluwe, K. Mattern, N. Sandetskaya, D. Kuhlmeier, M. Rahlves</i> Novel Fabrication of Polymer Based Microfluidic Chips Using Hot Embossing With 3D-Printed Moulds
9:48	70	<i>F. Binder, B. Ottens</i> Concept study of an adapter for the reprocessing of flexible endoscopes
10:00	17	<i>L. S. Mennerich</i> Investigation of Cutting Properties of Surgical Scissors in Applications with and without High-Frequency Energy
10:15	Coffee Break	
10:30	Postersession Jury	
Session 2 - Track C		
Biomedical Engineering 2		
Time	Chair:	
11:00	60	<i>D. v. Treuenfels, P. Dominke, S. Scholand, S. Müller</i> Fluidic design of a spectroscopic oximetry module
11:12	33	<i>A. Dick, L. Luft, C. Schade</i> Adjustment and evaluation of a newly designed device to set the reference arm length in swept source OCT
11:24	93	<i>B. Mustafa, M. Göb, L. Ha-Wissel, J. E. Hundt, R. Huber</i> Automated vessels count algorithm to find novel OCT-based biomarkers for inflammatory skin diseases
11:36	118	<i>M. Khalil, T. Kutscher, S. Meyer, Y. Kasprzak, S. Karpf</i> Wavelength regulation of a 1550 nm Fourier-domain mode-locked laser using a silicon camera
11:48	36	<i>S. Jegatheeswaran, M. Wunderlich, M. Stender</i> Evaluation of swept source OCT-based aberrometry measurement
12:00	106	<i>G. Berg</i> State of the art analysis of medical foot switches for high frequency applications
12:15	Lunch Break	

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Session 3 - Track C		
Biomedical Engineering 3		
Time	Chair: Dr. Alexander Neumann	
13:15	11	<i>E. Bösemann, M. T. Irshad, H. Fischer, M. Grzegorzec</i>
		Evaluation of the Usability of a Ventilation Test Framework
13:27	83	<i>M. Algherbawi</i>
		The conception and prototypical development of a valve system for a realistic ventilation management between lung simulator and sleep therapy device
13:39	15	<i>S. Janßen, A. Blohm</i>
		TIVA Versus Volatile Anaesthetics - What Will the Future of Anaesthesia Look Like?
13:51	102	<i>T. Bahns, S. Eisenbrand, D. Kleinewalter</i>
		Implementation and validation of a navigation framework for monkey testing of an anesthesia workstation
14:03	107	<i>S. Alsamna, O. Garbrecht, H. Fischer</i>
		Evaluation of the temporal response of a lung simulator to a step in FiO ₂
14:15	52	<i>S. Juvekar, S. Müller</i>
		Future of Quantum Computing in Healthcare
14:30	Coffee Break	
Session 4 - Track C		
Radio Technology and Locating		
Time	Chair: Peter Bartmann, M.Sc.	
14:45	43	<i>F. F. Okumus</i>
		Mavlink Based Communication Protocol Implementation
14:57	121	<i>N. Thom, S. O. Schmidt, H. Hellbrück</i>
		Development and evaluation of a localization system based on magnetic field measurements for identification of current carrying conductors
15:09	99	<i>B. Kampen, S. O. Schmidt, H. Hellbrück</i>
		Evaluation of Position Estimations for a Bluetooth Low Energy Angle-of-Arrival Localization System
15:21	128	<i>C. Revander, B. Sievers, H. Hellbrück</i>
		Adaptable, LIDAR based, mobile platform for performing localized indoor measurements
15:21	97	<i>M. Köppe, P. Bartmann</i>
		Demonstrating Side Effects of Digital Modulation and Demodulation in Educational Laboratories