

**Postersession A 27.09.2023 12:30 - 13:30 pm**

<b>Submission ID</b>	<b>Titel</b>	<b>Posternumber</b>
715	Digital personalized medical insole process - A step forward to more personalized medical support.	<b>A1</b>
770	Wall-less Flow Phantoms with 3D printed Soluble Filament for Ultrasonic Experiments	<b>A2</b>
853	Assessment of in-ear soft dry electrodes for electrocardiography	<b>A3</b>
916	Validation of ergonomic running handgrip elements to improve arm posture of running novices	<b>A4</b>
997	Real-time smartphone-assisted EEG electrode localization and augmented reality application	<b>A5</b>
1083	Enhancing Efficiency of Solution Electrospinning of Small Diameter Tubular Structures	<b>A6</b>
1118	Augmented Smart Insoles – Prototyping a Mobile Application: Usage Preferences of Healthcare Professionals and People with Foot Deformities	<b>A7</b>
1129	Biomechanical Properties of Textile Scaffold Structures for Biohybrid Implants	<b>A8</b>
1130	Investigation of antiadhesive properties of biomimetic titanium nanostructures in fluidic flow	<b>A9</b>
716	PH-triggered drug release of ciprofloxacin from layer-by-layer coatings on titanium	<b>A10</b>
718	Release behaviour of model drugs from polydimethylsiloxane (PDMS)-thin films for cochlea implant electrode functionalization	<b>A11</b>
725	A lateral scanning fiber-based common-path optical coherence tomography system for obtaining algorithm training data from pituitary gland and adenoma tissue samples	<b>A12</b>
729	SkillsLab+ - Digitization of the Otoscopy Station through State of the Art Methods of Augmented Reality	<b>A13</b>
730	Spectral skin color measurement by LED reflectometry	<b>A14</b>
744	Combining the benefits of NIR-signals for biosensing with sensitive Si-based detectors	<b>A15</b>
754	Modeling interfacial diffusion-based corrosion in Active Implantable Medical Devices	<b>A16</b>
757	Microfluidic devices for light stimulation of cell suspensions: experimental analysis of the flow behaviour using a micro-PIV system	<b>A17</b>
761	Optical calibration of a common path optical coherence tomography device for measurement of tissue attenuation coefficients	<b>A18</b>
765	Production of submicrometer-sized active pharmaceutical ingredients by pulsed laser fragmentation in liquids in a flow-through reactor	<b>A19</b>
784	Universal test bench for repeatable multi-parametric cochlear implant insertion tests	<b>A20</b>
787	Temporal bone phantom for decoupled cochlear implant electrode insertion force measurement	<b>A21</b>
686	First clinical application of spider silk for repair of long distance peripheral nerve defects	<b>A22</b>
788	Controlling Leakage of Potential Juxtacrine Self-Assembled Monolayer-BMP-2 Surfaces	<b>A23</b>
790	A smartphone-based approach to continuous monitoring of Parkinson's disease patients	<b>A24</b>
797	Histological Findings of Human Cadaveric Ear with Inserted Inner Ear Catheter	<b>A25</b>
804	Characterization of a mechanically strain-stiffening structure using different elastic materials for potential applications in soft tissue engineering and implants	<b>A26</b>
813	Conception and Implementation of an Virtual Reality Application for the Evaluation of Different Types of Commercially Available Haptic Gloves	<b>A27</b>
814	Temperature-triggered liquefaction of hydrogels for intentional implant removal	<b>A28</b>

829	Extension of an Existing VR Memory Training with Haptic Impressions due to a Haptic Vest	A29
858	IMU-based displacement detection of spinal vertebrae during image-based surgeries	A30
862	App for the prevention of malnutrition in vegan diet	A31
865	Development of a camera-marker system (CMS) for locking nails during intramedullary osteosynthesis in large animals – First results	A32
866	Miniaturized PCB with Wireless Power and Data Telemetry for Active Stents	A33
867	Investigation of knee joint stability in surgically repaired canine cruciate ligament ruptures by cyclic passive joint motions	A34
880	A Hybrid FES-Exoskeleton with ILC Control for Gait Assistant	A35
891	Development of an Intelligent Walking Aid for Fall Detection	A36
907	Low Temperature ALD Processes for Cardiac Implant Encapsulation	A37
910	Towards the development of the biohybrid lung: Endothelialization of Blood Contacting Surfaces Inside a Miniaturized Oxygenator	A38
912	Inkjet printability of Celecoxib drug solutions	A39
928	Fabrication of polymer-based stents: Impact of test specimen manufacturing protocol	A40
933	Methods for radial force testing – perspectives for a self-expanding polymeric neurovascular microstent	A41
937	Novel airflow ring for the reduction of germ load in a surgical field	A42
940	Pirfenidone release from ophthalmic implants – perspectives for a drug-eluting microstent for glaucoma therapy	A43
943	Fallopian tube occlusion – anatomical ex vivo studies in advance of preclinical in vivo models for future microstent-based therapeutic concept evaluation	A44
948	Towards an Hydraulically Actuated Extruder for Bioprinting	A45
976	Strain-rate dependence of mechanical characteristics of PLLA with different MW	A46
978	Nitinol catheterization cannula for MRI-guided vascular interventions	A47
983	Development of a test setup for hydrodynamic characterization of hydrocephalus shunts	A48
990	Post-modification of PLLA nanofiber nonwovens by various solvent treatments	A49
1006	Reproducible and Easy-To-Use Optical Phantom for Biomedical Polarization Imaging	A50
1014	Ag sputter coating of PLLA nonwovens	A51
1019	Investigation of manufacturing deviations of CPC scaffolds for improving the design process	A52
706	Regression-based Correction for Infrared Thermography in Neonatal Incubators	A53
1021	Active wound patch with electrical stimulation	A54
1023	Towards AI-driven minimally invasive needle interventions	A55
1038	A comparison of two CNN-based instrument detection approaches for automated surgical assistance systems	A56
1040	Evaluation of loading behavior of a self-expanding polymeric microstent for the treatment of Fallopian tube occlusions	A57
1043	Change of ST-level during and after physical activity in young men	A58

1051	Method for fabrication of laser-induced periodic surface structures on vascular stents	A59
1091	Investigation on correlations between optical tissue properties and MRI relaxation times	A60
1094	Core-Shell-Nanoparticles with Superparamagnetic Properties for Novel Applications as Biomaterials	A61
1095	Mechanical Adaptive Silicone Composites for UV-triggered Facilitated Cochlear-Implant Removal	A62

**Postersession B 27.09.2023 16:00 - 17:00 pm**

Submission ID	Titel	Posternumber
682	Fiber-Based Impedance Spectroscopy as an Integrated Sensor System for Real-Time Monitoring of Oxygenators	B1
708	Influence of Video-Preprocessing on Deep Learning-based Surgical Skill Assessment	B2
852	Development of a PET/MRI system with long axial field-of-view (LAFOV) and dedicated local PET detectors enhancing the spatial resolution – Introduction of the HD-MetaPET-Project	B3
856	ProtoTOF: A scalable DOI-capable detector prototype aiming for 100 ps timing resolution in time-of-flight positron emission tomography systems	B4
896	Deep Learning Enables a Novel Magnetic Resonance Imaging Contrast that Unveils Chemical and Microstructural Brain Tissue Changes Through Nondipolar Larmor Frequency Shifts	B5
939	A Diagnostic Classification model for Autism Spectrum Disorder using Structural Connectivity of DTI and Machine Learning Algorithm	B6
950	LIFTOSCOPE: cell sorting into microtiter plates using laser induced forward transfer within a high speed microscope	B7
955	Ventilatable thorax-lung model of the rat to optimize electrical impedance tomography for small animals	B8
971	Design of a miniaturized wearable EIT system for imaging and hand gesture recognition	B9
996	Parameter evaluation and image data analysis for the development of medical diagnostic Multi-Energy X-ray	B10
1002	Enhanced PET/MRI Insert for High-Resolution Breast Cancer Imaging	B11
1007	Polyvinyl Alcohol based Ultrasound Phantoms with Magnetic Microparticles for the Development of Magnetomotive Ultrasound Algorithms	B12
1017	Enhancement and labelling of OCT images	B13
1018	Measurements of the Pressure Loading Response of the Gluteal and Sacral Skin Tissues when Lying in Bed Using Camera-based Techniques	B14
1024	Accuracy evaluation of 3D pose estimation with MediaPipe Pose for physical exercises	B15
1026	Modified Allen Test Assessment via Imaging Photoplethysmography	B16
1037	Deep Semantic Segmentation of Cell Painted Nuclei Images using UNet++	B17
1041	Exploring the Orientation Dependency of Nondipolar Frequency Shifts in Magnetic Resonance Imaging: An Approach to Unveil Chemical Exchange and Tissue Microstructure in the Brain	B18
1055	Mechanical energy and intensity of ventilation and its association with pulmonary neutrophilic inflammation	B19
1066	Mapping the Anisotropy of Tissue Magnetic Susceptibility from Single-Orientation Magnetic Resonance Imaging	B20
1072	AUC margin loss for limited, imbalanced and noisy medical image diagnosis - a case study on CheXpert5000	B21
1123	Deep Learning Based Quality Prediction of Retinal Fundus Images	B22
1133	Diagnostics of Multi Drug Resistant Tuberculosis in Chest Radiographs using Local Textures & Extreme Gradient Boosting	B23

763	Detailed anatomical neck model for electromagnetic simulations	<b>B24</b>
1088	The best of both worlds – An automated molecular PoC-system for infection detection combining the advantages of laboratory diagnostics and antigen-based rapid tests for individual- and mass-testing	<b>B25</b>
845	Controlled therapeutic nucleic acid delivery: From smart DNA-circuits to out-of-equilibrium systems	<b>B26</b>
1061	A microphysiological system applied to the evaluation of a <sup>64</sup> Cu-labeled PSMA ligand	<b>B27</b>
1063	[ <sup>18</sup> F]Fluorodeoxyglucose in functional characterization of the renal barrier in a proximal tubule model	<b>B28</b>
723	Re-evaluation of LA-TT-EABR “PromBERA” in cochlear implant candidacy	<b>B29</b>
839	Definition of critical load conditions for highly conformable circuit integration using a vascular model for the advancement of active stents	<b>B30</b>
860	Closed-loop control of a non-invasive neuroprosthesis for automatic adaption of grasp patterns	<b>B31</b>
700	Ultrasound muscle activity tracking system based on 32 element bracelet for control of prosthesis	<b>B32</b>
707	Comparison of Feature Extraction Methods for Spike Detection with Artificial Neural Networks: A Focal Epilepsy Case Study	<b>B33</b>
739	Amplitude fluctuations in the averaged photic driving in the electroencephalogram correspond to burst occurrence in single trials	<b>B34</b>
750	A 3D-printed ventilator for small animals	<b>B35</b>
758	Pilot study on the effect of a transocular alternating current stimulation on the steady-state pattern-reversal electroretinogram	<b>B36</b>
805	Transmissive transcranial ultrasound as a novel approach for the non-invasive assessment of the intracranial pressure status	<b>B37</b>
878	Generation and validation of a pain-related evoked potential sample response	<b>B38</b>
903	Characterization of time-delay in inline blood gas sensors	<b>B39</b>
925	Fully integrated Windows framework for source localization with MNE Python and FreeSurfer	<b>B40</b>
1000	A Cut finite element method for the tDCS forward problem	<b>B41</b>
1035	Analysis of Varying Light Conditions on Camera-based Non-Contact Vital Sign Monitoring	<b>B42</b>
1056	Inter-Subject Differences in orientations and locations of stimulation targets in the visuo-motor network	<b>B43</b>
1069	Facial responses to physiological stress in thermal infrared imaging	<b>B44</b>
1085	Wearable healthcare sensor-system for the treatment of patients with Diabetic Foot Syndrome	<b>B45</b>
1104	Optimization and evaluation of a mobile IMU-based ballistocardiography system	<b>B46</b>
906	Active compensation of a shielded room with an optically pumped magnetometer as inside sensor	<b>B47</b>
956	Optimization of an Iron Core Selection Field Generator for Human-scale Magnetic Particle Imaging	<b>B48</b>
963	Current Control System for coupled Coil Arrays in MPI	<b>B49</b>
733	Identification of Surgical Instruments Using a Low Frequency Magnetic Field	<b>B50</b>
1067	Gradiometer setup for magnetic ambient noise reduction using Magnetoimpedance Sensors	<b>B51</b>
861	Prototyping 3D printing phantoms for diffuse optical imaging and fluorescent probe evaluation	<b>B52</b>
1102	Long-term storage stability of iron oxide nanoparticles	<b>B53</b>

991	In silico model to assess thrombosis risk of TAVR with hemodynamic predictors using fluid structure interaction	<b>B54</b>
1011	Biomechanical Test Setup for the Investigation of Forehead Suture Techniques	<b>B55</b>
1078	Item Level Surgical Instrument Tracking with 5.8 GHz RFID Technology	<b>B56</b>
777	Automated Emotion-assessment in waiting rooms – a feasibility and acceptance study	<b>B57</b>
812	Detection of Ventricular Tachycardia Using Artificial Intelligence	<b>B58</b>
830	A Lightweight Framework for Semantic Segmentation of Biomedical Images	<b>B59</b>
843	Lymphoma Cell Nuclei Classification using Color and Morphology Features	<b>B60</b>
879	An approach for privacy aware image analysis based on convolutional neural networks	<b>B61</b>
892	U-Net-based SUV calculation in FDG-PET imaging of mice brain for enhanced analysis	<b>B62</b>
952	Improving the Interpretability of ECoG-Signals by Identifying Significant Signal-Segments with Explainable AI	<b>B63</b>