

Organisers



IHK zu Lübeck
www.ihk-sh.de/lsa2017

Supported by



BioMedTec Wissenschaftscampus
www.bio-med-tec.de



University of Applied Sciences

Lübeck University of Applied Sciences – Medical Sensors and Devices Laboratory
www.msgt.fh-luebeck.de



Fraunhofer MEVIS
www.mevis.fraunhofer.de



Life Science Nord e.V.
www.lifesciencenord.de



Micro Technologies

VDMA Micro Technologies
<http://micro.vdma.org>

Networking Partners



B.A.H. e.V.
www.bah-bonn.de



DGBMT
www.vde.com/de/dgbmt/



Diagnostiknetz Berlin-Brandenburg
<http://diagnostiknet-bb.de/>



F.F.M. e.V.
www.ffmpeg-luebeck.com



Initiative Bildverarbeitung e.V.
www.initiative-bildverarbeitung.de



ScanBalt BioRegion
www.scanbalt.org



Universität zu Lübeck
www.uni-luebeck.de

Registration, contact and further information

LSA2017 Website and Online registration

Please register before 23 June 2017 at www.ihk-sh.de/lsa2017
Programme details may be subject to change.

Fees and discount fees

All participants must register. Attendance fee is 50 EUR. Discount fee is 30 EUR. Representatives of member organisations of the BioMedTec Science Campus, Life Science Nord, and VDMA are eligible for discount fees. Students are exempt from fees. A valid student-ID is required at registration.

Table-top exhibition

Room MF500

Fees for table-top stands are 200 EUR plus 19% V.A.T. per stand, including catering and free access to the conference presentations for two staff of the exhibitor's organisation. Stands include a stand-up table and space for one roll-up display. Further details and a service package leaflet are available from IHK zu Lübeck (see below for contact details).

Poster exhibition

Room MF500

Posters on (1) regulatory affairs for medical devices, (2) deep learning or (3) microfluidics are welcome. A limited number of poster boards (1.20 m width, 1.50 m height) is available. For further details please contact IHK zu Lübeck (see below for contact details).

Location

MediaDocks, Willy-Brandt-Allee 31, 23554 Lübeck / Germany
For directions see <http://www.media-docks.de/lage-anfahrt.php>

Accommodation

Hotel Excelsior Lübeck
www.hotel-excelsior-luebeck.de

Klassik Altstadt Hotel Lübeck
www.klassik-altstadt-hotel.de

Atlantic Hotel Lübeck
www.atlantic-hotels.de/luebeck

Park Inn by Radisson Lübeck
www.parkinn.de/hotel-luebeck

Contact

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Note: With registration I agree to the organisers using and storing my personal data for the organisation of this event. Personal data will not be forwarded to third parties.



LSA2017

Lübeck Summer Academy on Medical Technology

- Regulatory Affairs
- Deep Learning
- Microfluidics

July 4, 2017, 9 am to 5 pm
MediaDocks, Lübeck



Welcome to LSA2017!



Our topics are regulatory affairs for medical devices, deep learning and microfluidics.

The *Medical Device Regulation (MDR)* is announced to come into effect in 2017. This will drastically increase administrative and financial expenditures of medical device manufacturers. Transition periods apply, but

immediate action will be necessary for manufacturers, importers, dealers and operators of devices, as well as researchers and developers. The Regulatory Affairs session is organised by *Life Science Nord's Working Group on Regulatory Affairs*. Experts will give essential information on the key changes introduced by the MDR. You are invited to engage in interactive panel discussions.

Deep Learning teaches machines to think. By mimicking the neural network structure of the human brain, deep learning promises computers that understand images and voices on an abstraction level so far reserved to humans alone. Applications range from computer games like AlphaGo to human level voice recognition and even automatic medical image analysis for disease diagnosis. Most major tech companies are pursuing deep learning applications today, making it the most hyped technology at present. The Deep Learning session is organised by *Fraunhofer MEVIS*, an institution that develops real-world software solutions for image-supported early disease detection, diagnosis, and therapy. Experts will share their experiences and expectations with researchers, developers and industry.

The *flow of liquids* inside and outside the human body plays a key role in medical technology. Safety and reliability of many medical devices and their components, e.g. dialysis machines, infusion pumps, or liquid-handling systems for in-vitro-diagnostics, require safe and reliable dosing of liquids. Experts from academia and industry will discuss their current projects at LSA2017. Research and industrial presentations will be accompanied by an exhibition. The session is jointly organised by the *Medical Sensors and Devices Lab (Lübeck University of Applied Sciences)* and *VDMA Micro Technologies (Mechanical Engineering Industry Association)*.

A common introductory session, key notes, posters, and a table-top industry exhibition will complete LSA2017. You are most cordially invited!

Heike Wachenhausen
Conference Chair
(Head of Life Science Nord Working Group on RA)

Programme

9.00	Registration and coffee
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Plenum Session: Welcome and Introductory Key Notes Room MF100-1	
9.30	Welcome Henrik Botterweck Chairman, Lübeck BioMedTec Science Campus
9.40	EUROIMMUN – Cutting-Edge Diagnostic Systems and Innovative Technologies Made in Lübeck Christof Lehmann Director Marketing, EUROIMMUN AG, Lübeck
10.10	Advanced Technologies and Regulatory Response – Concepts and Challenges for Regulatory Systems of Medical Devices Folker Spitzenberger Professor Regulatory Affairs Lübeck University of Applied Sciences
10.40	Refreshments and exhibition (room MF500)
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Parallel Session 1: Regulatory Affairs Medical Devices: From EU Directive to EU Regulation Room MF100-1	
11.00	Challenges of EU-MDR: Transition Periods and Further Provisions of Interest Almut Fröhlich (tbc) German Federal Ministry of Health, BMG, Berlin
11.45	Implementation of EU-MDR: A Challenge for Manufacturers? Jan-Michael Krüger Olympus Winter & Ibe GmbH, Hamburg
12.30	Lunch and exhibition (room MF500)
13.30	The EU-MDR from a Notified Body Perspective Hans-Gerd Evering BSI Group Deutschland GmbH, Frankfurt
14.00	Clinical Evaluation under the EU-MDR and MEDDEV 2.7/1 Revision 4 Florian Tolkmitt Regulatory & Clinical Affairs Expert, Frankfurt
14.30	Refreshments and exhibition (room MF500)

15.00	CE-Documentation under the EU-MDR Thomas Bohnen Qualitätsplan24 GmbH, Lübeck
15.30	Panel discussion: From EU-MDD to EU-MDR
16.00	Get-together: Refreshments and exhibition (room MF500)
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Parallel Session 2: Deep Learning From AlphaGo to Diagnostics Eames Room	
11.00	Deep Networks: An Old Concept Revolutionizes Machine Learning Thomas Martinetz Institute for Neuro- und Bioinformatics, University of Lübeck
11.30	Deep Learning in Pathology, Radiology and Ophthalmology Bram van Ginneken Diagnostic Image Analysis Group, Radboud University Medical Center, Nijmegen, The Netherlands
12.00	Machine Learning vs. Explicit Domain Modelling Alexander Schmidt-Richberg Philips Research Laboratories, Hamburg
12.30	Lunch and exhibition (room MF500)
13.30	Distributed, Secure Deep Learning and Algorithm Validation from a Practical Perspective Markus Harz Fraunhofer MEVIS, Bremen
14.00	Machine Learning Gaining Ground in the Machinery Industry Eric Maiser VDMA Competence Center Future Business, Frankfurt
14.30	Refreshments and exhibition (room MF500)
15.00	Rescue From the Flood of Data – Optimised Callus Regeneration Through Deep Learning-Supported Stem Cell Research Matthias Steffen FUSA-AI Artificial Intelligence Specialists GbR, Hamburg
15.30	Panel discussion: Deep Learning
16.00	Get-together: Refreshments and exhibition (room MF500)

Parallel Session 3: Microfluidics 10th Workshop on Low Flows in Medical Technology VDMA Micro Technologies Roadshow Microfluidics Room MF100-2	
11.00	Flow Sensor Controlled Dispensing and Metering Thomas Weisener HNP Mikrosysteme GmbH, Schwerin
11.30	Microfluidics and Application of Microvalves Marc Staiger Staiger GmbH & Co. KG, Erligheim
12.00	Lab-on-a-Chip Systems with Integrated Microfluidic Pumps: A Flexible Platform for Rapid Assay and Biosensor Integration Jörg Nestler BiFlow Systems GmbH, Chemnitz
12.30	Lunch and exhibition (room MF500)
13.30	The Role of Micro Diaphragm Pumps in Medical Technologies Axel Wille Fraunhofer Research Institution for Microsystems and Solid State Technologies EMFT, Munich
14.00	Ultrasonic Fabrication of Disposable Medical Analysis and Dosing Systems Werner Karl Schomburg Design and Development of Micro Systems KEmikro, RWTH Aachen
14.30	Refreshments and exhibition (room MF500)
15.00	New Optical and X-ray Analysis Methods Utilizing Microfluidic Devices: Concepts and Applications in Medical Research Simone Techert Deutsches Elektronen-Synchrotron, DESY, Hamburg
15.30	High Accuracy Microarray Spotting for Lab-on-Chip Applications Wilhelm Meyer microdrop Technologies GmbH, Norderstedt
16.00	Get-together: Refreshments and exhibition (room MF500)