

**Moving Around in Eindhoven**

Moving around in Eindhoven during the conference can be a bit tricky because the conference coincides with the spectacular Glow event\*, which means that the inner-city will be closed for traffic from 18:00 till midnight\*\*. Under these circumstances we have made a list of points that can be helpful in travelling around:

➤ **Arriving by public transport and other information**

- You are advised to take a hotel close to the railway station. The Student Hotel Eindhoven, Hampshire, Holiday Inn, Intel Hotels Art, Pullman, Park Plaza, NH Collection Eindhoven Centre are all excellent choices.
- From the railway station bus number 407 takes you four times per hour directly to the High Tech Campus. Take stop "HTC/The Strip" and follow the signs to "the Strip."
- If you arrive in the morning of the first day of the conference and do not have time to check in at your hotel before attending the conference, we have arranged for a mini bus to take your luggage during the day to your hotel so that you have your hands free to join the evening program.
- At the end of the day, buses will be available to take you to the Philips Museum in the center of Eindhoven for drinks and snacks and networking. If you still feel hungry after the reception you can find a nice restaurant to your liking in the center and enjoy the Glow spectacle.
- The next morning bus line 407 departing from the railway station will take you back to the High Tech Campus.

➤ **Arriving by car**

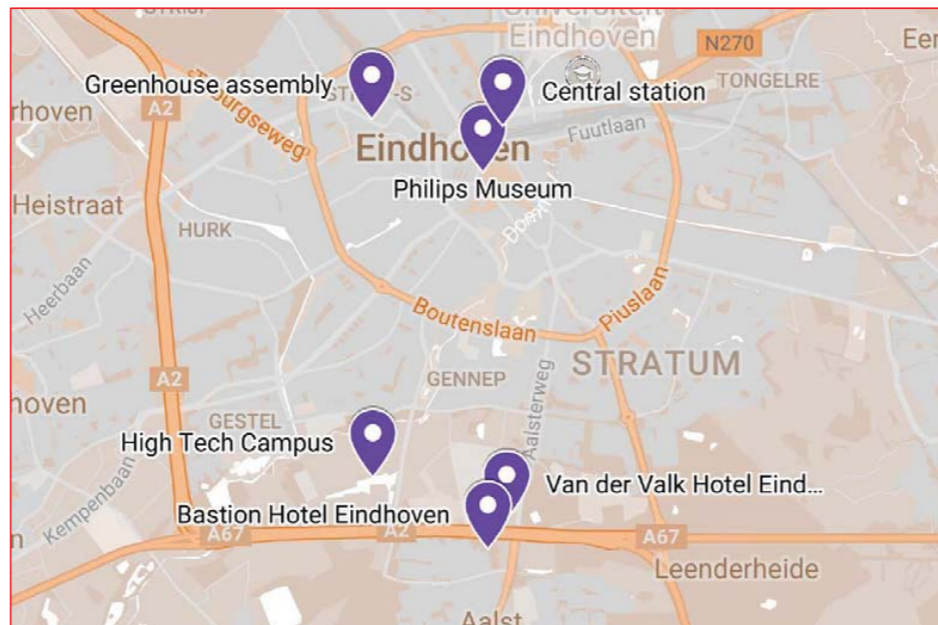
- You are advised to take a hotel in the periphery of Eindhoven. Both the "Van der Valk" and the "Bastion" hotel are located in the vicinity of the High Tech Campus, and are next to the highway. You are advised to either leave your car at the hotel and walk, or take a taxi, to the High Tech Campus in the morning, or come by car to the High Tech Campus and park it there for the night in P0 or one of the other parking garages (note that the Campus is closed between 9 pm and 6 am, but you can leave your car there to pick it up the next day).
- In the afternoon we have arranged for buses to take you to the Philips Museum in the city center. After the reception and visit to the Glow festival you can easily return to your hotel by taxi, or by one of the buses departing from the railway station (lines 7, 117, 317 and 318 all stop directly in front the Van der Valk hotel).



\*Scan the QR code for more information if you are interested in GLOW Eindhoven. This will provide you with some handy tips.



\*\*Scan the QR code for reserving parking spaces in Eindhoven during Glow. Note that the redirected website is in Dutch.



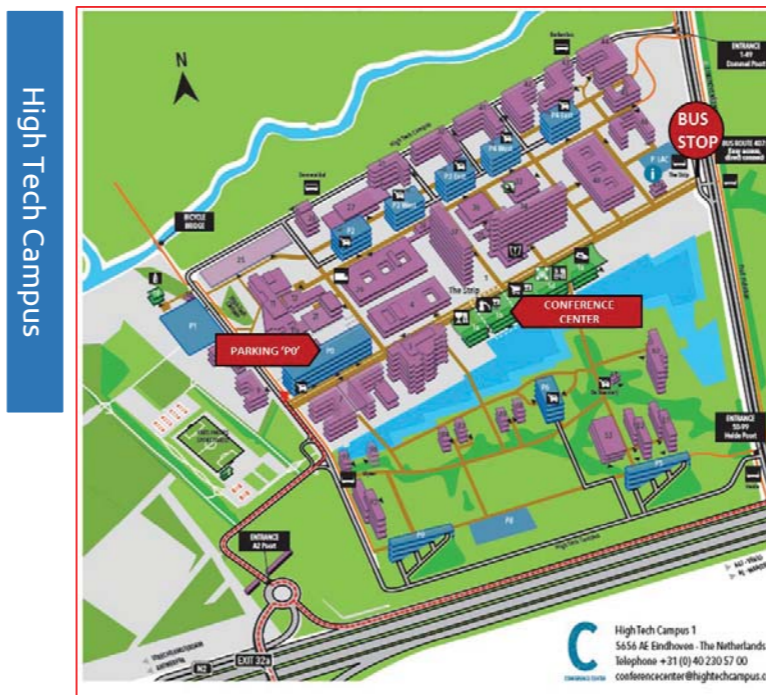
This special edition of the Design of Medical Devices Europe conference is jointly organized by the Delft University of Technology and Philips. The central theme this year is "Microfabrication for Medical Devices"

In this brochure you can find information regarding Venue, Conference program and other useful logistics to ensure a good experience.

The conference goodie bag includes:

- USB stick with conference booklet where detailed information about the conference, the abstracts per session and the posters from European initiatives (INCITE, InForMed) are present
- Brochure for the GLOW event in Eindhoven
- Brochure for Philips Museum

**Wi-Fi information : WLAN-PUB (public free Wi-Fi)**



**PARKING IN HIGH TECH CAMPUS (HTC)**

The conference takes place in "The Conference Center" at the Strip, High Tech Campus. Visitors are advised to park in garage P0. All gates to Randweg N2 and Professor Holstlaan are open during weekdays, between 06.30 and 20.30 hours.

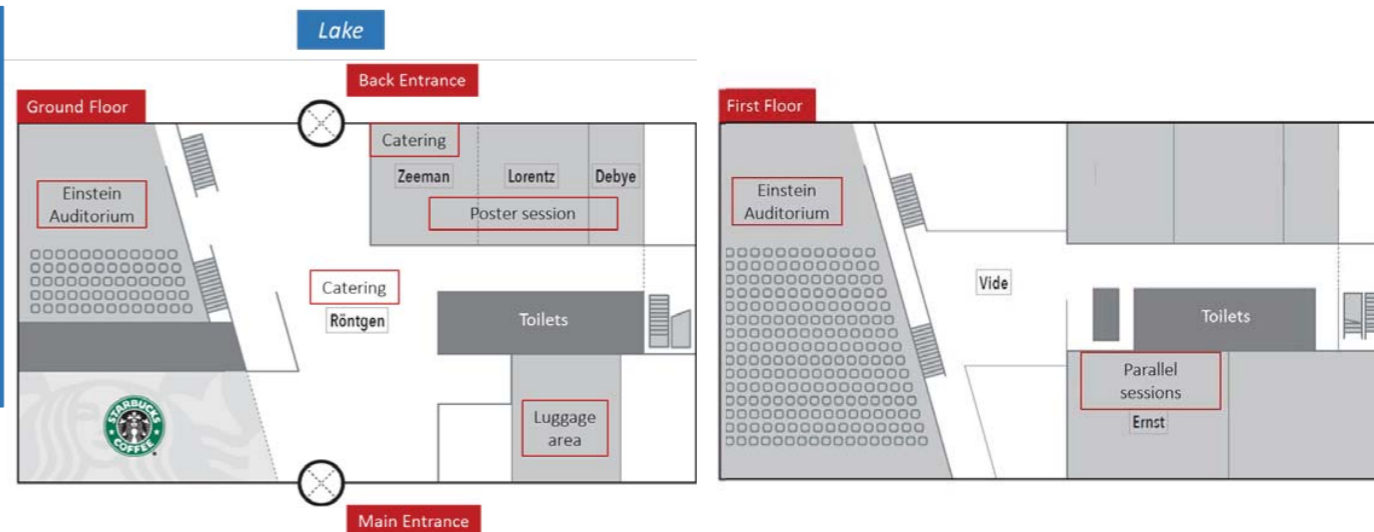
**REACHING HTC BY PUBLIC TRANSPORT**

Easy access from NS railway station Eindhoven with bus connection line 407.

More information on the bus schedules and travelling around Eindhoven can be found at website 9292.nl or you can scan the QR code



**Conference Floorplan**



08:00 - 09:00 **Registration and Coffee** *Röntgen*

09:00 - 09:10 **Welcome** *Einstein Auditorium*

09:10 - 09:50 **Keynote: Exploring the Future of Image-guided Surgery with Smart Catheters**  
Ron Kroon, PhD *Einstein Auditorium*

09:50 - 10:20 **Invited: Prehistory of IVUS 1971 - 1989 and Beyond**  
Prof. Klaas Bom *Einstein Auditorium*

**10:30 -12:00**  
**Session 1** *Einstein Auditorium*  
**The next generation smart catheters**

10:30	A Front-End ASIC with In-Probe Digitization for 3-D Forward-Looking Intravascular Ultrasound Imaging	Mingliang Tan	TU Delft
10:45	Compressive Forward-Looking 3D Intravascular Ultrasound Imaging Using a Single Element Transducer	Jovana Janjic	Erasmus MC
11:00	RF ablation catheter for photoacoustic lesion monitoring	Sophinise Iskander-Rizk	Erasmus MC
11:15	Heartbeat OCT disposable catheter with distal micro-motor	Leonardo Cecchetti	Erasmus MC
11:30	Improving bladder cancer diagnostics with an Optical Coherence Tomography imaging catheter	Arjan Groenevelt	Scinvivo

**10:30 -12:00**  
**Session 2** *Ernst*  
**INCITE / InForMed pitch presentations**

10:30	Micro-fabrication of medical devices for Europe: Introduction to the INCITE and InForMed projects	Sieger Swaving	Philips Innovation Services
10:45	Speed presentations to pitch the project achievements	INCITE & InForMed demo leaders	European consortium
11:30	Meet the experts: Visit the INCITE/InForMed Poster exhibition	INCITE & InForMed demo leaders	European consortium

12:00 - 13:00 **Lunch** *Röntgen*

13:00 - 13:40 **Keynote: FFR - 'less is more' - from Innovative Theory to Golden Standard**  
Dr. Pim Tonino *Einstein Auditorium*

13:50 **Invited: CMUT - from Research to Product** *Einstein Auditorium*  
14:20 Dr. Peter Dirksen

**14:20 -16:00**  
**Session 3** *Einstein Auditorium*  
**The MEMS Ultrasound Revolution**

14:20	Electrical and Acoustic Characterization of Scandium Aluminum Nitride PMUTs	Panu J. Koppinen	VTT
14:35	First ever solid state cMUT IVUS catheter through Flex-to-Rigid integration	Vincent Henneken	Philips Research
14:50	Computationally efficient finite element modelling of periodic ultrasound arrays	Ronald Kampinga	Reden
15:05	Electrifying Frequency-Tunable Ultrasound Catheters with Light	Martin Pekar	Philips Research
15:20	Ultrathin MEMS pressure sensor and readout ASIC	Jaakko Saarihahti	VTT
15:35	Catheter integration for two flexible circuit based cardiovascular applications	Frank Stam	Tyndall

**13:50 - 16:00**  
**Session 4** *Ernst*  
**Innovation in micro-fabricated medical devices**

13:50	Bridging the Valley of Death for Microfabricated Medical Devices	Ronald Dekker	TU Delft
14:00	Thinking Together, Working Together, Investing Together	Bert de Colvenaer	ECSEL JU
14:20	Sharing to Reduce Economic Risks	Maurits Butter	TNO
14:40	The Philips MEMS Foundry – a European Pilot Line for Medical Devices	Robbert v.d. Waal	PIoS
15:00	Design and Development of SureStim	Hubert Martens	Salvia
15:20	PhD+, from Lab to Fab	Paul de Wit	TU Delft
15:35	UBORA: Euro-African Open Biomedical Engineering e- Platform	Andrés Díaz Lantada	Universidad Politecnica de Madrid

16:00 - 16:15 **Coffee** *Röntgen*

16:15 - 17:30 **Visit of the InForMed Pilot Line for Micro-fabricated Medical Devices** (limited places) *High Tech Campus / Greenhouse*

18:00 - 20:00 **Reception** *Philips Museum*

08:30 - 09:00 **Registration and Coffee** *Röntgen*

09:00 - 09:10 **Welcome** *Einstein Auditorium*

09:10 - 09:40 **Keynote: Miniaturized Neural Implants: Design, Development and Reliability**  
Prof. Thomas Stieglitz *Einstein Auditorium*

09:50 **Invited: Life Sciences Go Digital** *Einstein Auditorium*  
10:20 Prof. Liesbet Lagae

**10:20 -12:00**  
**Session 5** *Einstein Auditorium*  
**Smart Body Patches**

10:20	DermaTrax: Development of a Bluetooth-enabled Wound Dressing with onboard Temperature and Moisture sensing	Suzanne O'Callaghan	Tyndall
10:35	Smart Textiles for Health Monitoring	Marcin Meyer	KOB
10:50	Human Health Monitoring by Micro Gas Detectors	Johan Klootwijk	Philips Research
11:05	Breaking Barriers: Wearable Micro Transdermal Interface Platforms (MicroTIPs) for Transdermal Delivery and Diagnostics	Conor O'Mahony	Tyndall
11:20	Microneedle-based ECG Monitoring	Andrea Bocchino	Tyndall
11:40	Hybrid Printed Electronics in Health patches: the perfect match!	Frank Everaerts	Holst Centre

09:50 **Invited: Soft Bioelectronic Interfaces** *Ernst*  
10:20 Prof. Stéphanie P. Lacour

**10:20 -12:00**  
**Session 6** *Ernst*  
**Bioelectronics**

10:20	Deep brain stimulation and sensing	Luc van Immerseel	Nexeon Medsystems
10:40	Advancing bioelectronics development	Rory Murphy	Intelligent Implants
11:00	Flexible implantable ultrathin chip encapsulation (FITEP) to fabricate neural CMOS-based probes for intra-fascicular implantation	Maaike Op de Beeck	IMEC
11:15	Miniaturized Electrodes and Catheter Tips with Integrated Functional Components based on LCP Substrates	Eckardt Bihler	Dyconex
11:30	Generic platform for the miniaturization of bioelectronics implants	Marta Kluba	TU Delft
11:45	Ultra-Low-Noise Signal-Recording Amplifier/MUX ASIC	Reza Lotfi	TU Delft

12:00 - 13:00 **Lunch** *Röntgen*

13:00 - 13:40 **Keynote: From Lab on Chip to Organ on Chip**  
Prof. Albert van den Berg *Einstein Auditorium*

**Invited: hDMT Organ-on-Chip Consortium: Joining forces for the future in Europe** *Einstein Auditorium*  
13:50 Dr. Janny van den Eijnden-van Raaij

**14:20 -16:00**  
**Session 7** *Einstein Auditorium*  
**Organ-on-Chip**

14:20	Heart-in-a-Dish: Preclinical Drug Screening for Cardiotoxicity	Berend van Meer	Leiden MC
14:35	Heart-on-a-chip: a high-throughput, multimodal cardiotoxicity screening platform	Thomas Pauwelyn	IMEC
14:50	Cystostretch: A Multi-Well Plate Heart-on-Chip Device	Nikolas Gaio	TU Delft
15:05	Skin-on-chip: integration of skin tissue and microsystems engineering	Lambert Bergers	TU Delft
15:20	MEMS-Electronics Integration: A Smart Temperature Sensor for an Organ-on-a-chip Platform	Ronaldo Ponte	TU Delft
15:35	New polymer fabrication strategy for integrated microfluidic systems	Paola Fanzio	TU Delft

**13:50 -16:00**  
**Session 8** *Ernst*  
**Robotics and miscellaneous**

13:50	Force feedback and tactile sensing for Robin Heart Surgical Robot	Péter Fürjes	Hungarian Academy of Sciences
14:05	Safe Puncture Tool for Retinal Vein Cannulation	Mohamed Zanaty	EPFL
14:20	Modeling the behavior of guidewire inside the vascular system and comparing the trajectory and the applied forces	Hoda Sharei Amarghan	TU Delft
14:35	Automated Visualization of Steep Needles in 3D Ultrasound	Arash Pourtaherian	TU Eindhoven
14:50	Automatic online layer separation for vessel enhancement in X-ray angiograms for percutaneous coronary interventions	Hua Ma	Erasmus MC
15:05	New concept silicon microgripper: fabrication and biocompatibility assessment	Alvise Bagolini	FBK
15:20	Proximal Audio Measurement and Analysis - Information Enhancement for Interventional Device Guidance	Alfredo Illanes	University Magdeburg

16:00 - 16:15 **Closure** *Einstein Auditorium*

16:15 - 17:30 **Drinks & Snacks** *Röntgen*