



IIT MADRAS
Indian Institute of Technology Madras

RWTHAACHEN
UNIVERSITY

Workshop on
Wire-free, multi-modal non-contact physiological sensing and monitoring

Organized by
Indian Institute of Technology, Madras and RWTH Aachen University

7th April to 20th April 2021

Virtual workshop on Zoom

Chairs

Prof. Steffen Leonhardt, RWTH Aachen University
Dr. Mohanasankar Sivaprakasam, IIT Madras

Talk Timings

Session 1 - 2:30 pm IST (11 am CEST)

Session 2 - 6.30 pm IST (3 pm CEST)

 **Workshop website :** <http://hticlab.org/ioeworkshop>

 **Registration - link & QR code :** [Register](#)

Contact : karthik.s@htic.iitm.ac.in



<p>7th April Wednesday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Prof. Wenjin Wang Philips Research, Eindhoven University of Technology</p> <p><i>Robust camera-PPG in near infrared and its applications</i></p>
<p>7th April Wednesday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Prof. Dr.-Ing. Vladimir Blazek, Dr. h.c. RWTH Aachen University</p> <p><i>Photoplethysmography Imaging (PPGI): selected notes on history, etymology, today´s modi operandi and new horizons</i></p>
<p>8th April Thursday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Prof. Lorenzo Scalise Marche Polytechnic University</p> <p><i>Advanced non-contact method for vital sign monitoring: Possible approaches and interfering inputs</i></p>
<p>8th April Thursday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Prof. Omer T Inan Georgia Institute of Technology</p> <p><i>Unobtrusive monitoring of cardiogenic vibrations as a means to evaluating cardiovascular and respiratory health</i></p>
<p>9th April Friday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Prof. Dr.-Ing. Sebastian Zaunseder Dortmund University of Applied Sciences and Arts</p> <p><i>Non-contact blood pressure estimation by iPPG</i></p>
<p>9th April Friday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Prof. Wenyao Xu The State University of New York (SUNY) at Buffalo</p> <p><i>Wireless Innovation in Human Sensing: Vital signs and Beyond</i></p>

<p>12th April Monday 2:30 pm IST (11 am CEST)</p>	<p>No talk</p>
<p>12th April Monday 6:30 pm IST (3 pm CEST)</p>	<p>Prof. Daniel Teichmann University of Southern Denmark</p> <p><i>Unobtrusive acquisition of physiological signals based on electromagnetic and optical coupling: The dental treatment unit as an exemplary application scenario</i></p>
<p>13th April Tuesday 2:30 pm IST (11 am CEST)</p>	<p>Prof. Thomas M. Deserno TU Braunschweig and Hannover Medical School</p> <p><i>Transforming smart environments into diagnostic spaces</i></p>
<p>13th April Tuesday 6:30 pm IST (3 pm CEST)</p>	<p>Prof. Dr.-Ing. Christoph Hoog Antink TU Darmstadt</p> <p><i>Sensor Fusion and Machine Learning for Multimodal Physiological Sensing</i></p>
<p>14th April Wednesday 2:30 pm IST (11 am CEST)</p>	<p>Dr. Wim Verkruysse Philips Research</p> <p><i>Towards robust and practically feasible contactless SpO2</i></p>
<p>14th April Wednesday 6:30 pm IST (3 pm CEST)</p>	<p>No talk</p>

<p>15th April Thursday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Prof. Dr.-Ing. Dr. med. Dr. h.c. Steffen Leonhardt RWTH Aachen University</p> <p><i>Unobtrusive vital sign monitoring in automotive environments</i></p>
<p>15th April Thursday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Prof. Ioannis Pavlidis University of Houston</p> <p><i>A Naturalistic Pilot Study of Acceleration</i></p>
<p>16th April Friday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Prof. Alexei A Kamshilin Far Eastern Branch of the Russian Academy of Sciences</p> <p><i>Quantitative assessment of microcirculation parameters in clinical setting by camera-based plethysmography</i></p>
<p>16th April Friday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Dr. Daniel McDuff Microsoft</p> <p><i>Camera-based Physiological Sensing and Visualization with Applications in Health and Wellbeing</i></p>
<p>19th April Monday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Christian S Pilz CanControls GmbH Aachen</p> <p><i>Photoplethysmography Imaging - Signal, Model and Cognitive States</i></p>
<p>19th April Monday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Dr. Ivan Castro imec Belgium</p> <p><i>Unobtrusive health monitoring with capacitively coupled ECG, Bioimpedance and radar technologies</i></p>

<p>20th April Tuesday</p> <p>2:30 pm IST (11 am CEST)</p>	<p>Prof. Akinori Ueno Tokyo Denki University</p> <p><i>Progress and potential of sheeted flexible electrodes in multi-modal physiological sensing</i></p>
<p>20th April Tuesday</p> <p>6:30 pm IST (3 pm CEST)</p>	<p>Dr. Mauricio Villarroel University of Oxford</p> <p><i>Physiological monitoring of preterm infants in the Neonatal Intensive Care Unit</i></p>