

## CALL for PARTICIPATION

Workshop on THz Research, Technology and Applications  
 Organized by Hermes Partnership and IMEC-Academy  
 May 18, 2017, Leuven, Belgium

### Scope of the Workshop

THz-technology is expanding rapidly beyond the borders of laboratory and physics research into the world of scientific technical research, applied engineering and application development. Today technologies offer efficient solutions in the sub-THz range which make new applications possible in many sectors. With the prospect of real commercial exploitation Hermes Partners and others are involved in several THz research projects. Technology demonstrators have been developed.

Hermes Partnership, together with IMEC–Academy, will jointly organize a workshop on current scientific and applied research in the Mm-wave / THz domain with a focus on THz-sensing and THz-telecommunications. Strong emphasis will be on application needs and requirements. Aim of the workshop is to bridge research and the needs of industry and SME's. As such, the participation of Industry and SME companies is highly encouraged. Expert researchers and THz designers are invited to make a condensed presentation of their results and end-users are invited to present a concise overview of their needs and requirements. Contributions are sought in the following areas:

<b>Health, Bio THz sensing</b> <ul style="list-style-type: none"> <li>• Human tissue and skin analysis: sensing for medical purposes</li> <li>• Assisted living</li> <li>• Stress sensing</li> </ul>	<b>THz communications</b> <ul style="list-style-type: none"> <li>• Tbit communications</li> <li>• D-band communications (e.g. 5G backhaul)</li> <li>• Miniature and high performance antennas</li> </ul>
<b>Other THz sensing applications</b> <ul style="list-style-type: none"> <li>• Non-destructive testing in production lines</li> <li>• Food safety: Detection of foreign objects in food</li> <li>• Environmental sensing: liquid analysis and pollution detection</li> <li>• (Bio-) chemical Analysis applications</li> </ul>	<b>Practical THz application development</b> <ul style="list-style-type: none"> <li>• Mm-wave / sub-THz radar and imaging</li> <li>• THz technology, electronics, demonstrators</li> <li>• Development tools</li> <li>• Design requirements, technology demands</li> </ul>

The workshop discussions will be accompanied by two invited expert presentations.

### Invited expert talks

Prof. dr. Joachim Oberhammer, KTH Royal Institute of Technology, Stockholm, Sweden, technical project leader: M3TERA project. M3TERA envisions the wide-spread use of low-cost THz technology, enabled by a micro machined heterogeneous integration platform. <a href="http://www.m3tera.eu">www.m3tera.eu</a>	<b>Invited expert talks</b> Dr. Michael Nagel, CEO Protemics, Aachen, Germany.
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### Workshop organization and information

#### Workshop organization:

Hermes Partnership ([www.hermes-europe.com](http://www.hermes-europe.com)) in cooperation with IMEC-Academy, Leuven, Belgium. (Academic) research groups, industries, SME's and other are invited to submit a presentation/ contribution. Please send an 1-2 page outline of your proposed contribution to: [a.c.deridder@hermes-europe.com](mailto:a.c.deridder@hermes-europe.com). (presentations 20 minutes max, subject of review). Presentations will be placed on the workshop website. Registration fee euro 30,-- incl. luncheon. Registration for the workshop via IMEC-Academy, registration link can be found at: <http://www.hermes-europe.net/workshop-thz-mmwave/>