

- **First name and last name:** Jeroen Hoebeke
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- **Expected date of the conference:** June 5 morning (9:30)

- **Conference title:** Standardized connectivity and communication for constrained devices

- **Conference abstract:**

By 2020, an estimated 50 billion devices will be connected to the Internet. This revolution will transform the traditional human-centric internet to an "Internet of Things" (IoT), thereby enabling a whole new range of intelligent services in domains such as manufacturing, health, smart homes, logistics, etc. After introducing the Internet of Things, this talk will discuss the challenges in integrating embedded devices into the Internet, as many of the widely adopted Internet technologies had not been designed for such devices, i.e. devices that have constraints in memory, processing power and energy. We will highlight the latest evolutions in this domain, starting from communication and networking, all the way up to services and semantics. To conclude, we will give a number of examples on how these evolutions have inspired some of our past and ongoing research activities.

- **Brief cv:**

Jeroen Hoebeke received the Masters degree in Engineering Computer Science from Ghent University in 2002. In 2007, he obtained a PhD in Engineering Computer Science with his research on adaptive ad hoc routing and Virtual Private Ad Hoc Networks. Since 2014, he is assistant professor at the Internet and Data Lab research group (IDLab) that is part of the Department of Information Technology of Ghent University and imec in Flanders. He is coordinating research on mobile and wireless networks, IoT communication solutions (802.15.4e, BLE, LoRa, 802.11ah, NB-IoT), embedded communication stacks (IETF CoAP, IPv6, OMA LWM2M), IoT application enablers and wireless network management. This expertise has been applied in a variety of IoT domains such as logistics, Industry 4.0, building automation, healthcare and animal monitoring. He is particularly active in national funded projects as well as in defining, executing and managing such projects. He has also been involved in several EU research funded projects and is author or co-author of more than 100 publications in international journals or conference proceedings.