

# jelmertiete

electronics engineer

## about

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👤 JelmerT

## languages

dutch  
english  
french  
german (notions)

## programming

HTML, PHP, CSS  
JavaScript, node.js  
Python, C, ASM  
Verilog, VHDL  
Matlab, Latex

## platforms

Arduino, mbed  
rPi, Beaglebone  
3D printing  
MSP430, CC25XX  
BLE, 6LoWPAN

## software

Contiki, TinyOS  
Altium, Eagle  
Autocad, IAR

## interests

I'm a maker at heart and have a strong background in wireless sensor networks and computer science. My preference goes out to electronic hardware design and (rapid) prototyping. I hope to gain experience in supply chain logistics for consumer products. In all I'm a solution driven person, eager to learn and feel comfortable in a changing environment.

## education

- since 2010 **Ph.D.** candidate in the engineering sciences VUB, Vrije Universiteit Brussel  
*Monitoring Noise Pollution with Microphone Array-Based Wireless Sensor Networks*
- 2008–2010 **M.Sc.** industrial engineering - distinction EhB, Erasmus Hogeschool Brussel  
Majoring in electronics - ICT  
*Wireless link estimation in Contiki based sensor networks* in collaboration with Hanoi University of Technology - Vietnam
- 2004–2008 **B.Sc.** industrial engineering - distinction EhB, Erasmus Hogeschool Brussel  
Majoring in electronics - ICT

## experience

- 2014 **Beyond.io, Antwerp** R&D Engineer  
*PCB design, firmware development and production consulting for diverse prototypes.*
- 1-12 2011 **Zaffer BVBA, Zaventem** R&D Engineering internship  
*Development and production start-up of a wireless window-shutter control system, including electronic design of several remote controls and motors. Programming of firmware and software for smart remote controls and their wireless network.*
- 2010 - 2014 **FabLaBXL, Brussels** Fab lab manager  
*Start up and daily operations of an open workshop for students, artists and engineers where digital fabrication tools can be used freely to produce small scale products or projects.*
- 2007 - 2012 **Culture Club, Ghent** Light technician  
*Head technician, Light director during events and evenings. Technical maintenance of light- sound and video-material. Technical advisor for events.*
- 07 2007 **Right Management Consultants, Brussels** IT Consultant summer job  
*Revising and adjusting company intranet site and accompanying databases.*
- 07-08 2004/5 **Thomson (Grass Valley), Brussels** Audio-visual technician summer job  
*Assistance in the deployment of diverse audio-visual installations in radio and TV studios (European commission, Flemish Parliament, ...).*
- 2004 - 2014 **Freelance** Light-, sound- and video technician  
*Providing a full technical framework for events, shows, parties, performances, conferences, theater and live events. Designing of light-, sound-, video-, and power-plans. Programming and operating of diverse lighting- and Video desks. Construction of full lighting rig.*

# publications

## article in peer-reviewed journal

**ABox: New method for evaluating wireless acoustic-sensor networks**

Felipe Reinoso Carvalho, Jelmer Tiete, Abdellah Touhafi, Kris Steenhaut

*Applied Acoustics* 79 (2014) pp. 81–91. Elsevier, 2014

**SoundCompass: A Distributed MEMS Microphone Array-Based Sensor for Sound Source Localization**

Jelmer Tiete, Federico Domínguez, Bruno da Silva, Laurent Segers, Kris Steenhaut, Abdellah Touhafi

*Sensors* 14.2 (2014) pp. 1918–1949. Multidisciplinary Digital Publishing Institute, 2014

**Experimental Analysis of Small Scale PCB Manufacturing Techniques for Fablabs**

Yannick Verbelen, Davy Van Belle, Jelmer Tiete

*IJEIR* 2.2 (2013) pp. 136–143. 2013

## international peer-reviewed conferences/proceedings

**Low-Overhead Time Synchronization for Schedule-Based Multi-Channel Wireless Sensor Networks**

Kieu-Ha Phung, Huy Tran, Jelmer Tiete, Lan Tran, Kris Steenhaut

*LANMAN* 2013, 2013

**Migration from a legacy wireless technology to ZigBee for a Home Automation market ready system**

F Dominguez, A Touhafi, J Tiete, M Guler, K Steenhaut

*Networked Sensing Systems (INSS), 2012 Ninth International Conference on*, 2012

**Coexistence with WiFi for a home automation ZigBee product**

Federico Dominguez, Abdellah Touhafi, Jelmer Tiete, Kris Steenhaut

*Communications and Vehicular Technology in the Benelux (SCVT), 2012 IEEE 19th Symposium on*, 2012

**A Web-service based Approach for Developing Integrable Noise Monitoring Modules.**

Nguyen The Cuong, Abdellah Touhafi, Jelmer Tiete, Kris Steenhaut

*CLOSER*, 2011