

# Jelmer Tiete

electronics engineer

## contact

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## languages

Dutch  
English  
French  
German (notions)

## programming

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

## platforms

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

## 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 interests go out to electronic hardware design, research and (rapid) prototyping. I'm looking for more experience in supply chain logistics for consumer products. In all I'm a solution driven person, eager to learn and feel comfortable in a fast 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* - Expected begin 2015
- 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, Belgium** R&D Engineer  
*PCB design, firmware development and production consulting for diverse prototypes.*
- 1-12 2011 **Zaffer BVBA, Zaventem, Belgium** 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. Development of firmware and software for smart remote controls and their wireless network.*
- 2010 - 2014 **FabLaBXL, Brussels, Belgium** 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, Belgium** 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, Belgium** IT Consultant summer job  
*Revising and adjusting company intranet site and accompanying databases.*
- 07-08 2004/5 **Thomson (Grass Valley), Brussels, Belgium** 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, Europe** 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.*

## **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

**Ultrasonic multiple-access ranging system using spread spectrum and MEMS technology for indoor localization**

Laurent Segers, Jelmer Tiete, An Braeken, Abdellah Touhafi

*Sensors* 14.2 (2014) pp. 3172–3187. *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**

Federico Dominguez, Abdellah Touhafi, Jelmer Tiete, M Guler, Kris 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