

# Karel Heurtefeux

PhD at CNRS, Verimag Lab

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Nationality - French



## Areas of expertise

- Wireless communications and networking
- Wireless Ad Hoc, Mesh and Sensor Networks
- Embedded Systems
- Robust, Secure and Fault-tolerent Systems
- Real Experimentation using SensLab platforms and home-made testbeds
- Realistic Energy Consumption and Physical Layer Modeling
- Implementation of algorithms and simulations test-beds (Matlab, C/C++, JAVA)

## Skills

**Interpersonal** Presented research findings at international conferences and industrial meetings in poster and oral form during PhD at Lyon and Postdoctoral position at Grenoble. Developed interpersonal skills in a multicultural international environment through employment and student society work.

**Computer Knowledge**

- Programming : C, C++, Java, PHP ;
- OS : Unix/Linux, Windows ;
- DB : MySQL, Access, SQL server ;
- Publishing :  $\text{\LaTeX}$ , Word ;
- Network : Wireless networks, Sensor, Ad Hoc, Body Area networks.

**Drafting documents** Experience in drafting scientific publications, reports, scientific papers and conference proceedings.

**Foreign Language** French Native, English Fluent

## Education and Qualifications

**2006–2009 INSA de Lyon, CITI Laboratory**

**Ph.D** : *Self-organization and Localized Protocols in Wireless Sensor Networks.*

Supervisor : Pr. Fabrice Valois

Funded by French National Research Project ARESA

Including : R&D in China : 3 months in Xi'an.

**2004 – 2006 Université Claude Bernard Lyon 1**

**MSc in Computer Science**

Specialization : Networks, Telecommunications and Services.

Courses included : Embedded Systems, Security, Quality of Service, Future and Wireless Networks.

Cisco Certified Network Associate 1 and 2

Mention : good.

**2000 – 2004 Université Claude Bernard Lyon 1**

**BSc** : Computer Science and Mathematics

Courses included : Network Architecture, Database (SQL, Oracle), Algorithm Design and Complexity, Software and Hardware Architecture, language C, C++, JAVA.

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## Awards

- 2011**      **Best Paper Award** for the paper *Self-Stabilizing Small  $k$ -Dominating Sets*. International Conference on Networking and Computing (**ICNC 2011**).
- 2009**      **Best Paper Award** for the paper *Localisation distribuée pour routage en environnement bruité dans les réseaux de capteurs*. Conférence Francophone sur l'Ingénierie des Protocoles (**CFIP 2009**).

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## Relevant Work Experience

- Since sept 2010    **Postdoctoral Researcher**  
*institution*    CNRS / Verimag Laboratory, Grenoble, France  
*description*    Work on Wireless Sensor Networks protocols (RSSI-based localization, MAC and Routing layers) with real deployment (SensLab platforms).
- March–Sept 2010    **Postdoctoral Researcher**  
*institution*    Université Joseph Fourier / Verimag Laboratory, Grenoble, France  
*description*    Work on Self-stabilizing properties in distributed systems, energy Modeling and Security in Wireless Sensor Networks
- Oct–Dec 2009      **Research Engineer**  
*institution*    CITI Laboratory, INSA de Lyon, France  
*description*    Experiments on home-made sensor platforms : study on the RSSI-distance relationship.
- Oct–Dec 2009      **Teaching Assistant**  
*institution*    Department Telecommunication, INSA de Lyon, France  
*delivered lectures*    JAVA & C programming , WEB programming, Markov Chains, Network architectures and protocols, Operating System
- Oct 06–July 07     **Teaching Assistant**  
*institution*    Department Computer Science, Université Claude Bernard Lyon 1, France  
*delivered lectures*    Database, SQL

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## Activities and interests

- Membership      IEEE Communications Society
- Activities        Sport : swimming, skiing, running ; Traveling : Europe, Russia, Asia : Mongolia, Japan, China, Singapore, North America

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## References

### Pr. Florence Maraninchi

Professor, Grenoble INP / ENSIMAG  
Group leader : Synchronous Languages and Reactive Systems  
VERIMAG laboratory  
Centre Equation,  
2 Avenue de Vignate 38610 GIERES, France  
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### Pr. Fabrice Valois

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