SHORT CV (see http://lamspeople.epfl.ch/decotignie/FullCV-Decotignie.pdf for extended version)

DECOTIGNIE Jean-Dominique

Born on November 17, 1954, Swiss and French citizenship, married, 3 children.

Section head, Embedded Wireless System section, Centre Suisse d'Electronique et de Microtechnique.

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EDUCATION

Nov.78-Dec.82	Doctoral Studies, EE Dept., Swiss Federal Institute of Technology (EPFL), Lausanne. Awarded the "Doctorat ès Sciences Techniques" degree in Dec.82 for his thesis entitled "Contribution to theoretical analysis of propagation optical waveguides"
Oct.72-Jan.77	Studies for the Engineers degree, EE Dept., EPFL, Lausanne. Awarded the "Diplôme d'Ingénieur électricien" degree in Feb. 77.
1972	French "Baccalauréat", mathematics and physics, Latin-Greek (cum laude).

EXPERIENCE

- Management of a university lab. (Ecole Polytechnique Fédérale de Lausanne EPFL) and of a R&D laboratory (CSEM): personnel search, leadership and motivation, budget, equipment, funding and industrial partnerships search;
- Fundamental and applied research in communication and industrial informatics;
- Teaching at both undergraduate and graduate levels;
- Management and leadership of large multidisciplinary research and development projects in the area of consumer electronics, industrial computer engineering and Computer Integrated Manufacturing;
- Experience in international projects (negotiation, technical management, collaboration);
- Experience in expert appraisal and consulting for large computer projects in the industry;

CURRENT RESEARCH AREAS

- Wireless communications for real-time and low power distributed systems (including wireless sensor networks);
- Real-time local area networks: quality of service, network management, spatio-temporal constraints modelling, end-to-end timeliness, interconnections;

DISTINCTIONS

- Fellow of the IEEE (Institute of Electrical and Electronics Engineers) 1999.
- Adjunct Professor at Ecole Polytechnique Fédérale de Lausanne EPFL.
- Best Paper Awards
- Key Note speaker: ETFA 2001, FeT 2001 , RTN 2008, WFCS 2011, ECRTS 2012

EMPLOYMENT BACKGROUND

Jan. 97 - now Head of group, Real-Time and networking Group, Advanced System Engineering Division, Centre Suisse d'Electronique et de Microtechnique, Neuchâtel, Switzerland.

- *research and development in real-time communication systems and wireless communications. I have created this group in 1997. It has today 12 engineers and scientists nearly entirely externally funded.*

Jan.97 - now Adjunct Professor, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland.

- *teaching of 4 courses for students in Electrical Engineering, Computer Science and Communication Systems*

Jul.96-Sep.96	Visiting Professor, University of Maryland, Computer Science Department (with Prof. Agrawala)
Feb.96-Jun.96	Visiting scientist, IBM research center, La Gaude, France (with C. Galand)
Sept.95-Dec.95	Visiting Scholar, University of California at Berkeley, Mechanical Eng. dept. (with Prof. D. Auslander)
Jan.92-Dec.96	Assistant Professor, Laboratoire d'Informatique Technique, EPFL
Jul.89-Dec.91	Manager of the flexible machining & assembly cells project ("Laboratoire de Productique") EPFL
Feb.88-Jun.89	Head of the EPFL school project "Numerical Control of Machines" ("commande numérique de machines")
Jan.83-Jan.88	Senior research engineer at the Laboratoire d'Informatique Technique of EPFL
Nov.78-Dec.82	Research engineer and doctoral candidate, Laboratoire d'Électromagnétisme et Acoustique, EPFL.
Nov.77-Oct.78	Research scholarship at the University of Tokyo (Japan) in Professor OKOSHI's laboratory.
Feb.77-Oct.77	Research engineer at the Laboratoire d'Électromagnétisme et Acoustique of EPFL.

ACADEMIC AND PROFESSIONNAL ACTIVITIES

Regular Courses taught at EPFL:

- Real-Time communications, Master course, Computer & Communication Systems Eng., Since Spring 2005
- Real-Time Programming, Master course, Communication Systems Eng., 1991-2008.
- Real-Time Systems, bachelor course, Computer Engineering, Since Fall 97
- Design of Programmable (hardware and software) Systems, Master course, Electrical Eng., since Fall 93.
- Machine Control & System Design, ME Dept., Fall 86 to Fall 96
- Microprocessors and interfaces, ME Dept, Fall 88, Spring 89
- Engineering of Industrial Computer Systems, EE & CS Dept., Fall 89 to Fall 91

Other courses (a number of courses taught at Universities and Industries)

PhD Thesis

- 10 PhD Thesis Direction, 2 PhD Supervisions, 30 PhD thesis jurys

Invitations

- Program committee member, ECRTS, RTN, RTSS, RTS, FeT, WFCS

Editorial Boards and Reviews

- Associate editor, IEEE Transactions on Industrial Informatics, 2007-2008..
- member of the editorial board of "Annals of Telecommunications"
- reviews for IEEE Micro, Journal on Real-Time Systems, IEEE Transaction on Industrial Informatics, IEEE Transactions on Industrial Electronics, ACM Trans. on sensor networks, IEEE Trans. on Parallel and Distributed Systems, AFCET TSI, Bulletin ASE/SEV and a number of conferences.
- reviewer for French ANR, CTI/KTI, Canadian FNRS
- Advisory board, SIS, Austrian Academy of Sciences

Publications

- 9 book chapters, 126 papers in peer-reviewed journals and conferences,

Societies Membership

- Fellow of IEEE, Past Chairman of IEEE Switzerland Section, Member ACM, Vice-President of A^3E^2PL (Association of EPFL Alumni)

Publication List (last 5 years) - J.-D. Decotignie

(full list is available at http://lamspeople.epfl.ch/decotignie/PubList-Decotignie.pdf)

January 2015

PAPERS IN REVIEWED JOURNALS AND INTERNATIONAL CONFERENCES

[124] D. Piguet, J.-D. Decotignie, J. Rousselot. A MAC protocol for micro flying robots coordination. In Proc. 9th International Workshop on Real-Time Networks (RTN'2010), pp. 1-6, 2010.

[125] J. Rousselot, J.-D. Decotignie: When ultra-low power meets high performance: the WiseMAC high availability protocol. SenSys 2010: 441-442

[126] J. Rousselot, J.-D. Decotignie, On the best way to cut a body area network's wires. In Proc. of the IEEE Int. Conference on Communications (ICC 2010), pp. 1-5, Capetown, South Africa, 23-27 May 2010.

[127] J. Rousselot, J.-D. Decotignie, On the best way to cut a body area network's wires. In Proc. of the IEEE Int. Conference on Communications (ICC 2010), pp. 1-5, Capetown, South Africa, 23-27 May 2010.

[128] J. Gerrits et al., "A low-complexity C-band radar for non-invasive respiration measurement", Int. Symp. on Applied Sciences in Biomedical and Communication Technologies (ISABEL), 2010, pp.1-5.

[129] J. Rousselot, J.-D. Decotignie, An Ultra Wideband Impulse Radio PHY Layer Model for Network Simulation. SIMULATION January 2011 vol. 87 no. 1-2 82-112.

[130] M. Steine, et al., "Proactive reconfiguration of wireless sensor networks". MSWiM 2011: 31-40

[131] J. Rousselot, J.-D. Decotignie: An efficient and modular method for the simulation of real-time wireless embedded systems. SimuTools 2011: 87-89

[132] J. Farserotu., J. Baborowski, J.-D. Decotignie et al., "Smart skin for tactile prosthetics", 6th int. symp. on Medical Information and Communication Technology (ISMICT), pp.1-8, 2012.

[133] M Achtelik, J.-D. Decotignie, et al. "SFly: Swarm of micro flying robots". IROS 2012: 2649-2650.

[134] C. Antfolk et al., "The WiseSkin artificial skin for tactile prosthetics: a power budget investigation", 8th International Symposium on Medical Information and Communication Technology (ISMICT), p 4 pp., 2014

[135} A. Vorobyov et al., "Folded loop antenna as a promissing solution for a cochlear implant", 8th European Conference on Antennas and Propagation, EuCAP 2014, p 1735-1738, 2014

[136] P. Dallemagne, J.-D. Decotignie et al., "Suitability of the IEEE 802.15.4e extensions for spacecraft and launcher communications", ADASIA 2014.

[137] P.Pelissou et al., "Simulated IEEE 802.15.4a BER results (multipath and coexistence) in the spacecraft environment", IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE), 2014

KEYNOTES

- Keynote speaker, Euromicro Conf. on Real-Time Systems, Pisa, 2012.
- Plenary speaker, SPIE Microtechnologies, Prague, 2012.
- Keynote speaker, Workshop on Factory Communication Systems, Nancy, 2010.

10 MOST RELEVANT PUBLICATIONS

[1] J.-D.Decotignie, P.Pleinevaux, "Time Critical Communications Networks: Field Busses", IEEE Network Magazine, vol.2, No.3, pp.55-63, May 1988.

[2] J.-D. Decotignie, "Wireless Fieldbusses - a Survey of Issues and Solutions", invited paper, IFAC World Congress, Barcelona, July 21-26, 2002.

[3] A. El-Hoiydi, J.-D. Decotignie, C. Enz, E. Le Roux. Poster Abstract: WiseMAC, An Ultra Low Power MAC Protocol for the WiseNET Wireless Sensor Network. In Proc. 1st ACM SenSys Conf., pages 302-303, November 2003.

[4] C. Enz, A. El-Hoiydi, J.-D. Decotignie, and V. Peiris, "Wisenet: An ultralow-power wireless sensor network solution", IEEE Computer, 37(8):62-70, August 2004.

[5] J.D. Decotignie, "Ethernet based real-time and industrial communications", Proceedings of the IEEE, vol. 93, Issue 6, June 2005, pp.1102 - 1117

[6] Amre El-Hoiydi, J.-D. Decotignie: Low Power Downlink MAC Protocols for Infrastructure Wireless Sensor Networks. MONET 10(5): 675-690 (2005)

[7] J. Rousselot, Amre El-Hoiydi, J.-D. Decotignie, "Trade-off Analysis of Communication Protocols for Wireless Sensor Networks", APRES 2008, April 2008.

[8] J. Rousselot, Amre El-Hoiydi, J.-D. Decotignie, " Low power medium access control protocols for wireless sensor networks", European Wireless Conference, 22-25 June 2008 Page(s):1 - 5.

[9] J. Rousselot, J. Farserotu, J.-D. Decotignie, "Reconciling Ultra Low Power Consumption, Low Latency and High Throughput Communications : The WiseMAC-HA Protocol", 11th Int. Symposium on Wireless Personal and Multimedia Communications, Saariselkä, invited paper, 9 September 2008

[10] J. Rousselot, J.-D. Decotignie, Wireless Communication Systems for Continuous Multiparameter Health Monitoring. In Proc. of the IEEE International Conference on Ultra-Wideband (ICUWB 2009), invited paper, pp. 480-484, Vancouver, Canada, September 2009.