

Curriculum Vitae - Jan Madsen (February 2017)

Personal data & contact information:

- Date of birth: January 15, 1963, Lyngby, Denmark, Citizenship: Danish.
- Married to Pernille Vest Madsen. 2 children; Joel (18 years) and Flora (15 years).
- Phone numbers: +45 4525 3751 (office), +45 6017 1097 (mobile)
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Academic Degrees:

- *Ph.D. in Computer Science*, Technical University of Denmark, Denmark, 1992.
- *M.Sc. in Electrical Engineering*, Technical University of Denmark, Denmark, 1986.

Employment track & research affiliations:

- Professor, Department of Applied Mathematics and Computer Science, Technical University of Denmark, 2002 – present.
- Deputy Director, DTU Compute, 2010 – present.
- Head of section for Embedded Systems Engineering, DTU Informatics, 2008 – present.
- Associate Professor, Dept. of Informatics and Mathematical Modelling, Tech. University of Denmark, 2000 – 2002.
- Associate Professor, Dept. of Information Technology, Tech. University of Denmark, 1996 – 2000.
- Assistant Professor, Dept. of Information Technology, Tech. University of Denmark, 1992 – 1996.
- “Teknisk amanuensis”, Department of Computer Science, Technical University of Denmark, 1992.
- Research assistant and team leader of the Danish part of the ASCIS project. Center for Integrated Electronics (CIE), Technical University of Denmark, 1989 – 1991.
- Guest researcher at IMEC, Belgium, 1987 – 1988.

Honors, awards & funding

- DTU’s Award for Scientific Advise (the DSB IC4 train braking incident investigation), 2013.
- Nominated for Research Project of the Year 2012, Biologically Inspired Hardware Cell Architecture.
- Jorck’s Foundation Research Award for outstanding research activities in HW/SW Codesign, 1995.
- Coritt’s Foundation Travelling Scholarship, 1995.
- Has since 2000 attracted national and EU funding for a total amount of **50 mio DKK** (my share).

Selected professional activities:

- Member of ATV, 2017 – present
- Member of the Digitalization Committee under the Main Board of directors of IDA, 2017 – present.
- Member of DI/DIGITAL’s IoT Network, 2016 – present.
- Member of the DTU Proof-of-Concept Committee, 2016 – present.
- Member of the Steering Board for CACHE (Centre for Healthcare Technology), 2015 – present.
- National ICT expert for H2020, 2015 – present.
- Member of the review panel of the Swiss research program Nano-Tera, 2013 - present.
- Member of the Steering Board of EMSIG, Embedded Systems Special Interest Group (former ArtistDesign Network-of-Excellence), 2012 - present.
- Member of the Steering Board for ITOS, 2012-- 2015.
- Member and Co-founder of Danish Chapter of INCOSE (International Council on Systems Engineering) 2012 - present.
- Member of “IT-tænkerne” DANMARK 3.0, a think tank for our future Digital Society, 2011 – 2015.
- Member and Co-founder of IEEE Denmark Chapter on Embedded Systems, 2011 - present.
- Member of the editorial board of the IEEE journal “Design & Test”, 2010 - 2016.
- Member of ARTEMIS-IA, 2009 - present.
- Member of the Governing Board of ARTEMIS JU, 2008 – 2012.
- Member of the Strategic Management Board for ArtistDesign, 2008 – 2011.
- Vice Chairman of the board of IEEE Denmark Section, 2009 – 2015.
- Swedish Research Council (Vetenskapsrådet), Member of the Computer Science Panel, 2007, 2009.

- Member of EEDA, 2007 - present.
- Member of the editorial board of the journal “IET Proceedings – Computers and Digital Techniques”, 2005 – 2008.
- Member of the board of IEEE Denmark Section, 2005 – 2008.
- Danish representative for IFIP WG10, 2005 - 2015.

Patenting & innovation:

- Inventor of patent EPC 16203030.8-1371, Dec 16, 2016. Microfluidic Valve
- Patent no.: US 20110307734, Dec 15, 2011. Biologically Inspired Hardware Cell Architecture.
- Patent no.: EP 2370937, Oct 5, 2011. Biologically Inspired Hardware Cell Architecture.
- Inventor of patent WO/2010/060923, Biologically Inspired Hardware Cell Architecture, published 03.06.2010.
- Co-founder and CTA of Biomicore Aps. 2012 - 2015.
- Partner and Board member of ZYXplay Aps. 2010 – 2013.
- Member of Advisory Board for Akzess, CareTag and Mohocon.
- Member of Advisory Board for ”Design Smart Things”, FORCE DELTA 2016 - present
- Co-founder of AppGarage (student innovation lab) and “Danske Ideer” (Global Impact Competition)

Research:

Methods and tools for systems engineering of computing systems. Present research covers embedded systems-on-a-chip, wireless sensor networks (Internet-of-Things), microfluidic biochips (Lab-on-Chip) and synthetic biology. Emphasis is on design, modeling, analysis and optimisation of such systems, including the development of design automation tools and design methodologies.

Has successfully supervised 26 PhD students (to completion) and is currently supervising 5 PhD students.

Publication and citation statistics:

More than **160** peer-reviewed conference and journal papers, 12 book chapters, 3 books and 4 edited books. More than 100 invited talks and keynotes. Several best paper nominations, 2 best paper award (MECO 2013, CASES 2009), 1 paper among the 30 most influential papers from 10 years of Design Automation and Test in Europe (DATE), and 3 papers among the highly cited papers in System Codesign and Synthesis, of which one is in the top 5 cited papers. Citations: 2197, Hirsch h-index: 25, i10-index: 53 (Google scholar, February 19, 2017).

Chairing scientific events:

- General Chair of DATE 2018.
- General Vice Chair of DATE 2017.
- General Chair of NOCS 2012.
- General Chair of NORCHIP 2012.
- Topics Chair for DATE 2012.
- Program Chair of CODES+ISSS 2011,
- Topics Chair for DATE 2011.
- Program Chair of DATE 2007.
- Vice-Program Chair DATE 2006.
- Special Sessions Chair for DATE 2008.
- Tutorial Chair for DATE, 2006.
- Workshop Chair for CODES+ISSS 2005.
- Topics Chair for DATE 2005.
- Topic Chair for CASES, 2004.
- Topics Chair for DATE, 2003.
- Topics Chair for DATE, 2002.
- General Chair of CODES 2001.
- Program Chair of CODES 2000.
- Member of the Steering Committee of NOCS, 2012 - present.
- Member of the Steering Committee of CODES+ISSS, 2000 - present.

- Member of the Steering Committee of NORCHIP, 2003 – 2015.
- Member of the technical program committee for numerous conferences.