

Alain BOSSEBOEUF

Born in 1956, French nationality

Current positions: CNRS researcher (DR1) & project Professor IIS/The University of Tokyo

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EDUCATION

Diplomas

- 1989 PhD in Physics, University Paris South (Orsay). Capacitation to supervise theses (HDR)
- 1983 Doctorate Thesis (3rd cycle), University Paris South
- 1981 Master of Solid State Physics, University Paris 6
- 1980 Engineer diploma of Superior National School of Telecommunications of Brittany (ENSTBr)
Master Electronics and radiocommunications, option microelectronics and Integrated of Polytechnical National Institute of Grenoble (INPG Grenoble)

Continuous education

- 2007-2012 Nano and Microsystems (NAMIS) international schools
- 2006 IMAPS training courses "Plating processes for high reliability electronic devices" et "Hermeticity Testing, RGA and "Near Hermetic" Packaging Concepts", San Diego (USA)
- 2004 Summer school "Design for Manufacturing of Microsystems" of European network of excellence PATENT (ISLI, Edimburgh)
- 2002 Training "Packaging, assembly and testing of microsystems", Heriot Watt University
- 1999 Training, Anco Ingenierie « Introduction to ANSYS »
- 1997 CNRS training : « Access tools to Internet »
- 1995 CNRS training. « FORTRAN programming on Macintosh »
- 1987 3 months stay at Electrotechnical Laboratory (Tsukuba, Japon). "Investigation of membranes for X-Ray lithography masks"
- 1980 Master training: IMAG (Grenoble): « Analysis of internal operation of MC 68000 microprocessor »
- 1981 Master training : Institut of Fundamental Electronics (IEF) (Orsay) « Rutherford Backscattering analysis of silicon nitride films obtained by reactive ion-beam sputter deposition »
- 1977 Training Alstom company: «study of machining plans »

PROFESSIONAL EXPERIENCE

Career

- Since 1984 CNRS researcher at Institute for Fundamental Electronics (IEF), a joint institute of CNRS & University Paris South (Orsay, France). Senior researcher since 2001 (2nd class in 2001-2010, 1st class from 2011))
- Since Nov 2009 Head of mechanical and thermal characterization platform of IEF
- Since 2006 Head of research group "Micro and NanoSystems" and then "Microsystems and nanobiotechnologies" of IEF. Current staff: 18 Researchers, Professors or Ass. Professors, 2.5 Engineers/technicians and 15-20 PhD students or post-docs.
- Since 2005 Project professor at Institute of Industrial Sciences/The University of Tokyo. "Fundamental Microsystem Engineering" Lab.
- 2006 Head of research team "Physics and technologies for Micro and nanosystems integration"
- 2002-2005 Head of research team " Characterization, reliability and encapsulation of microsystems" at IEF

1999-2002 Head of research team " Materials, processes and instrumentation for microsystems" at IEF

Administration/Animation of research

06/2007-2011 Member of NEMS expert group of "Observatoire des Micro Nano Technologies" (OMNT, a CEA & CNRS Technology watch organization))
Since 1994 Member IEF council
Since 11/2005 Coordinator of international research network NAMIS ("Nano et Microsystems"). 12 organisations from 9 countries and 3 continents in 2013.
Head of Paris office of Center for International Research in Micro and nano Mechatronics (CIRMM) of IIS/The University of Tokyo
2005-2006 Member of expert committee « Micro et Nanosystems » of CNRS
2005-2005 Member of steering committee of Priority Thematic Network (RTP) "Microsystems" of CNRS
2007-2009 Coordinator of materials and test device databases of European network of excellence PATENT DfMM (Design for Micro Manufacturing)
Since 1999 Coordinator of more than 15 governmental or industrial contracts for IEF

Teaching et student supervising

Since 1999 20 to 30 hours of lectures/year in the field of microtechnologies and Micro Electro Mechanical Systems (French Masters, engineering schools, lectures in various countries (United Kingdom, Vietnam, Japan)
1983-1999 Lectures in various masters and engineering schools in Semiconductor physics and on technology/characterization of thin films
Since 1996 Direction of 17 theses and supervisor of 2 other theses and of 5 Post-docs
Supervisor or co supervisor of 55 trainees (Master, Engineering schools, technicians,...)

Diffusion of scientific et technical information

Since 2006 Member of program committee "microfabrication, integration and packaging" of international symposium "Design, Test, Integration and Packaging of MEMS/MOEMS", Chairman local chairman in 2006
1999-2007 Member of program committee then of steering committee of Micromechanics Europe Workshop
2001-2006 Member of program committee of SPIE conference "Microsystems Engineering: Metrology and Inspection"
2002-2004: Member of editorial committee of "Precision engineering" journal
2000-2002 : Member of editorial committee of French journal « Nano et microtechnologies »

Refereeing, expertise

Refereeing of more than 60 papers for various journals (IEEE, IOP, Springer, OSA,...) and conferences (MME, ISOT, EUSPEN, DTIP)
In 2009 Member of evaluation committee of AERES for IMS and CEA-LETI Institutes
In 2008 Expert committee member of Pnano program of French National Agency of Research (ANR)
Expertise of various projects for ANR, Ile de France region, Europe,..
Jury member of more than 20 Phd Theses
Member of DelfMEMS company expert committee (Lille, France)
Consultant for FOGALE nanotech company (Nîme, France)

RESEARCH ACTIVITY

1981-1991 Elaboration and characterization of thin films (notably by UHV ion-beam sputtering)

1991-1993 Post-discharge surface processing of thin films

Since 1993 Micro/nano technologies and systems : Elaboration & integration of active materials, development of specific micro/nano fabrication processes, M(O)EMS/NEMS characterization and modelling, development of optical characterization techniques for nanowires, MEMS and wafer-level packaging, investigation of high Q resonating sensors, development of wafer bonding and Wafer Level Packaging processes, microoptics and MOEMS

PUBLICATIONS

62 papers in international journals

4 book chapters

114 papers in International conference proceedings including (11 invited)

62 communications in national workshop and conference