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Bio



## Jordi Sune

Professor  
Autonomous University of Barcelona

Doctorate  
Spain



**FOLLOW**

### Brief Bio

Jordi Suñé is full professor of electronics at the Universitat Autònoma de Barcelona (UAB) since 2002. He graduated and obtained the Ph.D.degree in Physics from the UAB in 1986 and 1989, respectively. Research fellow at IMEC (fall of 1989) and at the University of Bologna (1990,1991). He has been Director of the Department of EE, vice-director for EE studies at the School of Engineering, and member of the board of governors of the UAB. He has served in several Technical Committees of relevant international conferences related to electron devices and reliability: IEEE International Electron Devices Meeting CMOS and Interconnect Reliability Subcommittee (2000-2001), International Reliability Physics Symposium (IRPS) Device Dielectrics Subcommittee (2000-2003,2012,2013), IEEE Semiconductor Interface Specialist Conference (SISC) (1999-2001), the International Conference Insulating Films on Semiconductors (INFOS) technical program committee (2001-2005), the International Conference on Ultimate Integration on Silicon (ULIS, now EUROSOI-ULIS) technical program committee (2012-2016) and the Non-Volatile Memory Technology Symposium (NVMTS) Program Committee (2012-2016). He was the first Spanish representative at the Scientific Community Forum of the European Nanoelectronics Initiative Advisory Council (ENIAC) technology platform during 2005. He has been the coordinator of the NANOCOMP research group mainly dedicated to the modeling and simulation of electron devices with a multi-scale approach during the past 15 years. Recently, he has founded a new research group (NEUROMORPHIC) dedicated to the application of neuromorphic electronics towards improved understanding of the human brain pro-

cesses at multiple scales and to development of alternative computing paradigms based on biomimetic neuromorphic circuits. He has (co)authored more than 400 papers in international journals and relevant conferences, among which 14 IEDM papers, several invited papers and five tutorials on oxide reliability at the IEEE-IRPS (2001, 2004, 2005, 2008, 2009). These publications have received ~5300 citations (~2000 since 2012) giving an h-index of 39 (22 since 2102) and i-10 index (Google Scholar) of 109 (54 since 2012). In 2004, he received the award Distinció de la Generalitat de Catalunya per a la promoció de la recerca universitària (young researcher) with the project entitled "Nanoelectronics: electron devices for the nanoscale". In 2008 he was honored with the IBM Faculty award, recognizing a fruitful long lasting research collaboration with IBM Microelectronics. Distinguished lecturer of the Electron Devices Society of the IEEE since 2009, he was elevated to the grade of IEEE Fellow on January 2010. In 2010 he received the ICREA ACADEMIA award from the Generalitat de Catalunya to fund a special dedication to research in the period 2010-2015. In 2012 and 2013, he was awarded the Chinese Academy of Sciences Professorship for Senior International Scientists for a joint project with the Institute of Microelectronics of this academy (IMECAS) on Resistive RAM. At present, he's the local coordinator of a European project (ENIAC-PANACHE) on emerging non-volatile memories based on resistive switching. His present research interests are: transition metal oxide-based memristors, complex perovskite oxide based memristors, biorealistic compact modeling of memristors for neuromorphic applications, RRAM fabrication, characterization and modelling, applications of graphene and two-dimensional (2D) materials for resistive switching applications, investigation of the human brain by biomimetic electric-circuit simulation (SPICE) and analog circuits based on the combination of CMOS and memristors. He still has some activity in the area of oxide breakdown and dielectric reliability in CMOS technology.

## Experience

*(Professor)*

**Autonomous University of Barcelona**

*(Society in Academia)*

Spain

## Education

No content to display.

## Honors & Awards

No content to display.



## Society Memberships

No content to display.

## Expertise

memristors    electron devices    Neuromorphics    deep learning    Variability statistics  
Reliability    Resistive memories    functional oxides    CMOS    resistive switching    RRAM  
Quantum wire    Non-volatile memories    resistive random access memory (RRAM)  
set voltage statistics   

## Specialty

Science  
▲  
Physics  
▲  
**Condensed Matter Physics**

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