

PostDoc position at University of Bordeaux (France)

Electrical and reliability modelling of emerging device circuits

In the framework of the projects FVLLMONTI¹, SENSOTERIC² and FERROFUTURES³ our aim is to develop and demonstrate a hardware and software platform based on low-cost emerging technologies for energy-efficient computing, meeting the specific needs of Embedded Artificial Intelligence. In this scope, we are looking for a highly motivated PostDoc candidate who will be working on circuit simulation and modelling tasks of the emerging technologies developed by our partners. This PostDoc position will be working with the Model For Circuit (M4C) team of the University of Bordeaux (UBx) within the IMS laboratory⁴. The objective of this PostDoc position is to develop a dedicated circuit simulation procedure able to assess the emerging technologies reliability at circuit level. This reliability circuit methodology will:

- use our device compact models,
- benefit from physical modelling of underlying phenomena,
- be demonstrate within industrial simulation environments.

During the PosDoc period, the main tasks will be:

1. to develop the simulation procedure for circuit reliability assessment of emerging devices
2. to use industrial circuit simulation software
3. to analyse the ageing tests of emerging devices for reliability modelling
4. to integrate the reliability models into the circuit simulation software

- Your Profile**
- Outstanding PhD in Electrical Engineering, emerging technologies, circuit design
 - Experience with compact SPICE/TCAD modelling
 - Professional English communication and writing skills
 - Ability to interact with team research people within an international environment
- We offer**
- Individual preparation for CNRS "Chargé de recherche" competition
 - Contribution to emerging cutting-edge nanoelectronic research within an interdisciplinary consortiums
 - Access to various characterization platforms and industrial simulation environments
 - Knowledge transfer from experts in the field
 - Salary above the French research organization standards
- Period**
- Planned starting date: September-October 2024
 - Duration: Up to 3 years

For further information and applying for this post please contact:

Professor Cristell MANEUX, University of Bordeaux, France, [cristell.maneux\(at\)u-bordeaux.fr](mailto:cristell.maneux(at)u-bordeaux.fr)

¹ <https://fvllmonti.eu/>

² <http://sensoteric.eu/>

³ <https://www.pepr-electronique.fr/fer/>

⁴ <https://www.ims-bordeaux.fr/>