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by Alexandra Radics

REF. N. 16_18

Job Description:
Job title: **1 PhD position in TECHNOLOGY**
Name of Organisation: Institute of Complex Molecular Systems (ICMS) – Eindhoven University of Technology (TU/e)
Country: Netherlands
City: Eindhoven
Main research fields: Technology
Sub research fields: Neuromorphic computing

Application deadline: 30/04/2018 - UTC

Required Education:
Level: Master degree
Fields: Materials science, (microsystems) engineering, electrical engineering or applied physics or relevant discipline.

Language skills:
Required languages: English
Level: Higher

Required research experiences:
Background in materials science, (microsystems) engineering, electrical engineering or applied physics or relevant discipline. Given the multidisciplinary character of the proposed research, the ideal candidate has experience in organic materials science, device physics and circuit engineering.

Application details:
Topic: Organic Neuromorphic Arrays for Smart Biosensors
Job description:
This project will be based on a remarkably tunable organic memristive with a fundamentally different working mechanism, based on the controlled ion injection into the bulk of the conductive polymer. The conductance (or synaptic weight) of this artificial synapse can thus be accurately tuned, crucial for low-energy analogue computing. In this project, we will tackle the next major challenge:
To create an interconnected network of artificial synapses to obtain a true neuromorphic array capable of learning and classification applied in a smart biosensor.
Duration of job: 4years
Status: Full-time
Benefits:
- An exciting job in a dynamic work environment;
- The possibility to present your work at international conferences;
- An attractive package of fringe benefits, including end-of-year bonus (8,3% in December), an extra holiday allowance (8% in May), moving expenses and excellent sports facilities.

Salary: The salary is in accordance with the Collective Labour Agreement of the Dutch Universities, increasing from € 2,222 per month initially, to € 2,840 in the fourth year.

Additional requirements: The candidate must has a hands-on attitude; experimental experience and can work independently as well as collaborate with others.