**Call for postdoctoral researchers**

We are looking for two postdoctoral researchers with expertise in neuromorphic engineering, electronics, and/or neuroscience to join us in the Neuromorphic Engineering Laboratory in the Montefiore Institute at the University of Liège (Belgium). Both positions are currently open.

The positions are funded by the project “Neuromorphic design of embodied intelligence” (NEMODEI), a joint project between the Montefiore Institute in Liège and imec in Leuven. This project combines the expertise of the Montefiore Institute and imec in neuroscience, software design, and hardware design to build a new Neuromorphic Engineering Laboratory at the Montefiore Institute. The Neuromorphic Engineering Laboratory is a newly created shared space where researchers from the Montefiore Institute as well as researchers from imec and mutual partners work together on three technology platforms for software, hardware, and wetware developments. The three technologies will be developed and used under the common paradigm of neuromodulation-based sensing, computing, actuating, and learning. Applications include active and adaptive sensing in event-based sensors, flexible control of complex robotic manipulators, and development of bio-inspired learning algorithms for spiking neural networks.

**Postdoc 1.** The postdoctoral researcher will develop research on brain-inspired computing, with a focus on one or several of the following topics: (i) design of neuromorphic sensing and signal processing systems, (ii) development of cognitive information processing methods, and (iii) neuromorphic design of embodied intelligence. The postdoctoral researchers will be based at the University of Liège, but will also work with the project’s collaborators at imec in Leuven.

**Postdoc 2.** The postdoctoral researcher will develop research on neuromodulation principles in biological neural microcircuits. The postdoctoral researcher will study the role of neuromodulation of excitability on learning in cultured circuits and will design and run experimental protocols exploiting high-density microelectrode arrays (developed at imec). The postdoctoral researchers will be based at the University of Liège, but will also work with the project’s collaborators at imec in Leuven.

**Profile and required qualifications:** The candidates must hold a Ph.D. degree. Ideal candidates have an expertise in one of the following, or related, fields: Neuromorphic Engineering, Electronics, Neuroscience, Control Theory, and should be willing to learn new techniques.

**Timing:** The positions are available immediately. The funding ends on December 31, 2023. If the candidate brings satisfaction (and depending on funding opportunities), the positions could be renewed for additional years.

**Environment:** The University of Liège was founded in 1817 and offers a complete range of university courses at undergraduate and postgraduate levels. The Montefiore Institute hosts 27 professors and 130 researchers and carries out both basic and applied research in key fields of Information and Communication Technologies, Computer Science, Data Science, Electronics, Power Systems and Applied Mathematics. It targets its efforts to contribute to application fields of societal importance, such as biomedical engineering, materials, energy systems, information systems, robotics, and transportation. Its members teach in the School of Engineering.

**How to apply:** Applications must be sent by email to Profs. Louis Wehenkel ([l.wehenkel@uliege.be](mailto:l.wehenkel@uliege.be)), Guillaume Drion ([gdrion@uliege.be](mailto:gdrion@uliege.be)), and Pierre Sacré ([p.sacre@uliege.be](mailto:p.sacre@uliege.be)) with subject “Postdoc in neuromorphic engineering lab”. The application should include (electronic version) a CV, list of publications, and the name of at least two referees.

For more information, kindly contact Profs. Louis Wehenkel ([l.wehenkel@uliege.be](mailto:l.wehenkel@uliege.be)), Guillaume Drion ([gdrion@uliege.be](mailto:gdrion@uliege.be)), or Pierre Sacré ([p.sacre@uliege.be](mailto:p.sacre@uliege.be)).
References:

- Alessio Franci (https://sites.google.com/site/francialessioac/)
- Jean-Michel Redouté (https://people.montefiore.uliege.be/jmredoute/)
- Pierre Sacré (https://people.montefiore.uliege.be/sacre/)
- Louis Wehenkel (https://people.montefiore.uliege.be/lwh/)
- Montefiore Institute: (https://www.montefiore.uliege.be/)
- School of Engineering (https://www.facsa.uliege.be/)
- University of Liège (https://www.uliege.be/)
- City of Liège (https://www.visitezliege.be/en)
- Imec (https://www.imec-int.com/en)