

JOB OFFER

Position in the project:	PhD Student
Scientific discipline:	Computational neuroscience
Job type (employment contract/stipend):	scholarship
Number of job offers:	1
Remuneration:	3 800 PLN monthly (scholarship)
Position starts on:	1 January 2020
Maximum period of contract/stipend agreement:	3 years
Institution:	Jagiellonian University, Cracow, Poland
Project leader:	Jacek Tabor
Project title:	Bio-inspired artificial neural networks <i>The project is carried out within the TEAM-NET programme of the Foundation for Polish Science</i>
Project description:	<p>The PhD student engaged in this project will carry out two parallel lines of work modelling the biochemical cascades implementing specific synaptic plasticity protocols and looking for simplifications which can achieve similar effects in simple spiking neural networks. Specifically, at least in the first phase of the project, the student would focus on mechanistic models of signalling pathways underlying induction of long-lasting, protein-synthesis dependent, forms of long-term potentiation (L-LTP), and their reductions which can be applied in practical computational contexts. We will then have two goals: to identify measurable signatures of learning and to construct a bio-inspired adaptive network model implementing the studied simplified plasticity protocols that could drive a mobile robot in a simulated environment. The PhD Student will work within the group led by prof. Daniel Wójcik. The position is based in</p>

	Cracow within the bioNN project but the student will also be a member of the distributed Warsaw-Cracow Neuroinflat and will be expected to participate regularly in meetings in Warsaw every few weeks.
Key responsibilities include:	The responsibility of the student will be: 1. development of computational models of synaptic plasticity and adaptive neural networks 2. interaction with partners in the project to support development of novel bio-inspired computational architectures 3. interaction with experimental partners
Profile of candidates/requirements:	We are looking for candidates with good quantitative and computational skills and a strong interest in biological and computational sides of brain functioning. Previous experience with programming is a must. Python is preferred. Basics of mathematics (calculus, PDEs, basic algebra) are required. Prior experience with neuroscience is not required but a strong interest in biology is a must. 1. a participant in doctoral studies run by an authorized organizational unit in Poland, 2. documented computational skills, 3. good command of English, 4. prior experience with computational modelling of the nervous system is an advantage 5. familiarity with machine learning, artificial intelligence, neural networks, deep learning, is an advantage
Required documents:	1. filled in recruitment form (available at the project website) 2. curriculum vitae 3. list of publications and ongoing research projects 4. declaration of acceptance of intellectual property regulations within Jagiellonian University (available at the project website) 5. documents confirming the status of a PhD Student (required when signing the contract) 6. consent for processing of personal data for the purpose of recruitment (available at the project website).
We offer:	1. cooperation with the best computational neuroscience and machine learning groups in Poland 2. scholarship of PLN 3 800 3. dedicated funds supporting participation in meetings, scientific exchanges and other forms of doctoral training 4. access to computing infrastructure.
Please submit the documents to:	bionn@matinf.uj.edu.pl
Application deadline:	30 November 2019 (11 PM CEST)
General rules of the requirement process	1. Candidates may apply simultaneously to multiple positions offered by the project. This must be declared in the application form. 2. Selection decision will be taken by the Recruitment Committee (RC) by 10 th December 2019. 3. Selected candidates will be invited to an interview between

	<p>15-20 December 2019. The confirmation will be sent to the invited candidates by 12th of December.</p> <p>4. RC's decision will be announced on 20th of September. The final decision must be approved by the Foundation for Polish Science.</p> <p>5. RC reserves the right to close the competition without selecting a candidate.</p> <p>6. In case of resignation of a recommended candidate or failure to receive the Foundation for Polish Science's approval, RC may invite further candidates or may announce a new call for the position.</p> <p>7. The results of the recruitment procedure may be appealed by the candidates within the period of one week after obtaining information about the decision of the RC.</p>
<p>For more details about the position please visit</p>	<p>bionn.matinf.uj.edu.pl</p>
<p>Euraxess job/stipend offer (in case of PhD and postdoc positions):</p>	<p>PhD Student (EURAXESS Job Offer id: 459061)</p>

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, we also require that by applying, a candidate expresses his/her consent to the processing of his/her personal data needed for the recruitment process by the Jagiellonian University.