Call for Student research assistant position in Swarm Robotics Lab of the excellence cluster Science of Intelligence, 80 hours / month
Reference number: SHK 2112/09/2024

General information Cluster of Excellence "Science of Intelligence" (SCIoI)
What are the principles of intelligence, shared by all forms of intelligence, no matter whether artificial or biological, whether robot, computer program, human, or animal? And how can we apply these principles to create intelligent technology? Answering these questions - in an ethically responsible way - is the central scientific objective of the new Cluster of Excellence Science of Intelligence (https://www.scioi.de), where researchers from a large number of analytic and synthetic disciplines - artificial intelligence, machine learning, control, robotics, computer vision, behavioral biology, psychology, educational science, neuroscience, and philosophy - join forces to create a multi-disciplinary research program across universities and research institutes in Berlin.

Student research assistant call "Swarm Robotics"
We are offering a student assistant position in the SCIoI swarm robotics laboratory. The aim of the lab is to perform experiments with robotic swarms to implement and explore bio-inspired algorithms for intelligent collective behavior. We are currently working with two different robotic platforms: 1) Groups of Thymio II educational robots extended by Raspberry Pie boards and additional sensors to enable wide range of individual behaviors. 2) Swarms of Kilobots, a platform specifically designed for swarm robotic experiments, consisting of small mobile robots with limited computing and sensing abilities. In addition to real-world experiments, we also perform computer simulations of swarming agents to investigate various behavioral algorithms.

The specific tasks for the student research assistant are:
- Support with setting up and performing of swarm robotic experiments.
- Support with numerical simulations of either custom made agent-based models or robotic simulators (WeBot, Argos, etc).
- Support in literature search, teaching and public outreach activities.

We seek for motivated students with strong computer skills with a background in engineering, (bio-)informatics / computer science, or related natural or engineering sciences and interest in computational biology and/or swarm robotics.

Applicants should have the corresponding proven skills:
- very good general computer skills
- very good programming skills (Python, C/C++ or comparable)
- very good English skills (oral and written)

Further, previous experience in either of the following areas are strong additional assets:
- robotic platform simulations and/or robotic experiments
- hands-on experience with deploying, programming and/or operating electronic devices such as microcontrollers (e.g. Arduino) or sensor arrays.

Please send your application as a single PDF-file named "YOURNAME_application_SHK.pdf" including a CV and transcript of records via Email to Dr. Pawel Romanczuk, pawel.romanczuk@hu-berlin.de, until **30.04.2024** (late applications may be considered until the position is filled).

Note: This attachment is only for additional information. Legally binding is only the official call SHK 2112/09/2024 (in German) as published online at:
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