Open paid position in Engineering

IT/ Electrical Engineer for development and industrial validation of advanced multisensor instrumentation for aquaculture

Description

Integrated microanalytical systems are poised to enable ubiquitous (bio)chemical fluid assessment, and to have a revolutionary impact on the prevention of key health and sustainability threats of our time. In these systems, the use of electrochemical sensor arrays stands out due to their capability to generate multivariate data from liquid samples, enlarging the number of chemical properties that can be determined simultaneously. To manufacture the arrays, microsensors fabricated in semiconductor technologies offer advantages such as miniaturization, robustness, mass fabrication, and ease of integration with electronic circuits for embedded artificial intelligence, making them particularly suitable for advanced monitoring at the point of interest.

In this project, you will collaborate with a multidisciplinary team with expertise in AI, computer science, chemistry, biology and microelectronics to deliver innovative intelligent solutions for total aquatic process monitoring and control. Your specific objectives will be to take technical ownership of the deployment, validation, and support management of the advanced instrumentation in real aquaculture settings. We will empower you to strengthen your technical expertise and contribute significantly to further develop the microsensing instruments and the necessary algorithms to monitor, predict, evaluate, and control critical parameters.
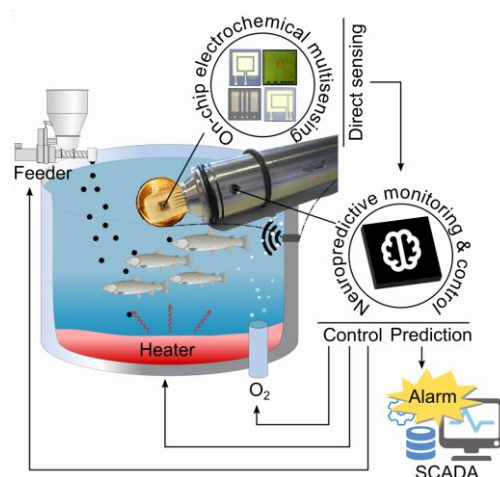
Background & skills

- Degree or MSc in IT/Electrical Engineering or a related field;
- Ability to work independently, and to thrive within a diverse technical team;
- High analytical, problem-solving, and communication (written and verbal) skills;
- Experience with embedded systems design (incl. hardware and software development);
- Knowledge of Deep Neural Network training/inference (TensorFlow and/or PyTorch) is a plus.

Tasks

- Debug and develop hardware & firmware associated to new instrumentation.
- Engage in the preparation and maintenance of the latest technological equipment in industrial settings;
- Formulate test plans to ensure device performance, and validate the system accordingly;
- Provide direct technical insight to key engineering changes to improve user experience;

What we offer

- Engineering contract in a stimulating, multidisciplinary, and dynamic environment;
- Extensive benefits package for work-life balance in line with Spanish Administration's and CSIC's regulations;
- Personalized hands-on training on cutting-edge technology topics with links to industry;
- Opportunity to join the ongoing startup project as entrepreneur.

Contact

To apply, please send a copy of your CV with subject "IAQUA Job Offer" to:

Dr. Josep Maria Margarit josepmaria.margarit@csic.es, with CC to Dr. Cecilia Jiménez cecilia.jimenez@csic.es