

**Postdoc or PhD Position on Recirculating
Aquaculture System Optimization**

**Institute of Environment &
Resources. DTU**

The Technical University of Denmark (DTU) is looking to hire a post doc. (2 years) or PhD (3 years) to conduct research on optimization of recirculating aquaculture systems (RAS).

The research will focus on:

- Integrated modeling of recirculating aquaculture systems, i.e. the combination of water treatment (mechanical and biological filtration, disinfection, etc.) and waste production (soluble & particulate organics, N, P, CO₂, and drugs/additives) from the aquatic species (eels, trout, etc.) in response to feeding.
- Estimation of model parameters on the basis of data from an experimental facility. Data is produced from on-line sensors and off-line laboratory instruments. The recirculating aquaculture plant is situated at DTU-Hirtshals, Jutland, and on-line data is transmitted by telecommunication to the DTU Lyngby Campus.
- Control and optimization of the fish productivity and minimization of the environmental impact and the use of resources. The aim is to uncouple as much as possible productivity on one side and environmental impact and use of resources on the other side.

Whether the project should run as a post doc. project or a PhD project depends on the availability of skilled persons and their prior competences. The two years postdoc project may even be split between two persons, each doing a one years study, one with an expertise within modeling and the other with an expertise within control & optimization.

This is a DTU project with collaboration between the Institute of Environment & Resources, the Department of Chemical Engineering, and the Danish Institute for Fisheries Research. Co-operation with outside partners will take place, for example with recirculating aquaculture production plants. The field work will take place in Hirtshals, Jutland.

Applications will be accepted until the position is filled, but a start date of 1. April 2008 is preferred. Applications should be electronic and should include a letter of intent, a CV, a statement describing research expertise and interests, original research articles, and a list of three academic referees. All information should be attached as one pdf file.

Those interested should contact: Erik Arvin, Professor, Water Supply Engineering, Institute of Environment and Resources, Technical University of Denmark, era@er.dtu.dk.

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