

Research Associate Position

for the Project “Strengthening the scientific foundation of water quality programs”

(Acronym: WATER)

Department of Civil Engineering

School of Engineering and Applied Sciences

The overall goal of the project is to strengthen the scientific foundation of water management programs, including criteria development for pollutants of high potential impact on environmental quality and biodiversity. The major technical objective of the project is to establish and implement detailed, distributed dynamic simulation models in terms of a dynamic water budget, resulting from the natural climate driven hydrological cycle, anthropogenic demand, and allocations, resulting in criteria of water availability and quality. BASINS4 and associated models (HSPF, Aquatox, etc) will be used for this purpose in conjunction with ARCVIEW/ ARCGIS. The project will establish the capacity for modeling, scenario analysis, TMDL development and BMP development at river basin scales.

The successful candidate will participate in developing, applying, and maintaining optimization models that will seek to examine various environmental management scenarios for the above-mentioned project.

Specific areas of effort include:

- Mathematical programming (Optimization) model development, assessment and application
- Collection of data, from partner, and other, organizations for this project
- Attendance of meetings and work-sessions with project partners
- Technical and management presentations
- Technical report writing
- Writing of research proposals
- Assisting the research team in research activities

The successful candidate will possess the following traits:

- Bachelor Degree (Master’s Degree desired) in Environmental or Civil Engineering or in Operations Research, Industrial Engineering, Engineering Management Applied Mathematics, or a related field.
- Strong analytical skills.
- Knowledge of Mathematical Programming / Optimization (i.e. Linear Programming, Integer Programming, Mixed Integer Programming) is essential. Knowledge of Non-Linear Programming is not required, but it would be a plus.
- Familiarity with related software packages (e.g. CPLEX, AIMMS, Xpress MP, GAMS, LINDO).
- Excellent written and oral communication skills and interpersonal relations skills.
- Excellent work ethic.

It is expected, and supported by Frederick University, that the successful candidate will have a strong interest in Research & Development and will contribute significantly to the further development of R&D in Frederick University on a long-term basis.

The post is available from 1 June 2010 for a period of 18 months (contract renewal is possible).

Salary depending on qualifications and experience.

Further enquiries

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How to apply

To apply for this vacancy, send your CV in PDF format to the following email address:

Dr. Christos Anastasiou

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