Research Assistant in Data Analysis

Vacancy 25/2014 - IIASA's Advanced Systems Analysis (ASA) Program is offering a position for a Research Assistant in data analysis.

Background:

At the core of the research carried out by the Advanced Systems Analysis (ASA) Program are mathematical models and analytical techniques to investigate complex systems, often in an integrated, multi-disciplinary setting. IIASA has long been involved in developing novel, cutting-edge methodologies as well as exploratory and innovative applications for systems analysis, so that improved solutions to global problems can be found. The aim of the ASA Program is to advance this type of research.

The team comprises experts in various fields of, inter alia, applied mathematics, economics and physics who benefit from exposure to IIASA's multi-disciplinary research environment. This allows an understanding of the demands posed by applied scientists to be gained and for methodologies to be developed accordingly. Additional interaction with decision-makers on the basis of ongoing projects allows the ASA Program to get a direct understanding of the kind of decision-support tools decision-makers need to have.

The Position:

The successful candidate will conduct research in the area of retrospective learning and apply advanced approaches of granulation (e.g., value granulation and discrete mathematical analysis) with "predictive" skills claimed to be beyond those of standard approaches. The candidate will collaborate with mathematicians, physicists and other experts, who are aiming to better handle uncertainty in prognostic scenarios and to provide a reference (standard), which can be used to inform about the "predictive" power of these scenarios (and their limitations).

Tasks:

- Select and explore the potentials (and limitations) of both advanced and standard methodologies to describe retrospective learning for available climate change data records
- Elaborate in greater detail, apply, and compare these approaches for individual data records as well as for data records that are logically linked
- Participate in the production of a manuscript for a peer-reviewed scientific journal as well as a research proposal for a follow-up project.

Requirements:

- An advanced university degree in applied mathematics or theoretical/environmental physics
- Advanced programming skills
- Expertise in applied statistics
- Strong interest in climate-economy system science
- Fluency in English both spoken and written
- Additional knowledge of and/or experience in (a) granular computing/discrete mathematical analysis/fuzzy logic/rough sets theory, and/or (b) economics advantageous.

Appointment Terms:

The successful candidate will initially be offered a one-year contract with the possibility of extension thereafter.

IIASA offers a competitive compensation and benefits package including moving and settlement allowances. IIASA salaries are exempt from taxation in Austria, but subject to the principle of income aggregation.

The Institute's management and staff alike are committed to a working environment that promotes equality, diversity, and tolerance. The Institute encourages applications from all qualified candidates. Preference will be given to applicants who are nationals of IIASA member countries.

Applications:

To apply, please send a cover letter, résumé, two recent examples of research work, plus names and contact details (including e-mail) of three work-related references via email to:

Ms. Alia Harrison, Human Resources
International Institute for Applied Systems Analysis (IIASA)
Schlossplatz 1, A-2361 Laxenburg, Austria
Fax: (+43) 2236/713-13
E-mail: harrison@iiasa.ac.at

Deadline for receipt of applications 7th January 2015.

For further information about this position, please contact:

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More

For general information about our Institute and its research activities, please visit our IIASA Web site. Internal reference # 140235