

## Kunnskap for en bedre verden

Jobbnorge-ID: 82019 Søknadsfrist: Avsluttet

Nettside: Omfang: Varighet:

# Post-Doctoral Researcher «Environmental Input-Output Analysis»

The Norwegian University of Science and Technology has currently an open two year position as a post-doctoral researcher on the area of input-output modeling for environmental accounting and resource indicators. The position is at the Industrial Ecology Programme. The position is connected to the upcoming EU Project *Development of a System of Indicators for a Resource efficient Europe* (DESIRE). NTNU's role in the project is in the development of a time-series of input-output tables with added detail on environmentally significant sectors and the integration of environmental extensions provided by project partners. In addition, NTNU will contribute to the analysis of the developed indicators and the prioritization of resources and sectors. The work will extend the development of multi-regional input-output models from the EXIOPOL project to give representations of environmental and economic interactions over time. The work involves investigation of causes of structural change in society (shifts in consumption, technology and economic structure), and the implications for the environment. Handling of large data sets will be required in the project, and significant work is required on both the development of these databases, and in drawing out pertinent results from extensive model outputs. Project outputs are envisioned to provide high level policy insights into the development of key resource indicators over time and across the globe. Applicable indicators cover the spectrum of traditional energy and material resources to critical materials and biodiversity impacts.

The Industrial Ecology Program (IndEcol) is an interdisciplinary research and teaching program managing its own International MSc program and PhD program. IndEcol is well recognized for its work in the areas of life-cycle assessment, material flow analysis, and the use of input-output analysis for environmental assessments, as evidenced by numerous publications and international prizes.

The current research activities are funded by national and European agencies, as well as industrial partners. There is a long tradition fundamental model development, as well as industrial and policy applications. The Industrial Ecology Program is well integrated in the international research community through the participation in EU projects and the participation in International Society for Industrial Ecology and International Input-Output Association working groups. Key faculty members currently serve as lead authors of the IPCC, the UNEP Resource panel and IEA task force. IndEcol currently participates in three EU FP7 projects with contributions based on input-output analysis and has two faculty members, a senior researcher, and a PhD student involved in this activity. This area will be further strengthened in accordance with IndEcol's strategy and a new PhD position has already been advertised.

The candidate must have a PhD in a related field of research and must have a strong record recent scientific output. Relevant backgrounds include PhDs in economics, applied mathematics, operations research, and industrial ecology. A knowledge of industrial ecology including lifecycle assessment and material flow analysis is a strength. A proficiency in data gathering and manipulation is important. Candidates should provide evidence of this proficiency, as well as providing insight into methods they have used or would use, and how these methods are applicable to this work. Knowledge of a MatLab or similar programming environment is a prerequisite.

Further information is available from our website <a href="www.ntnu.edu/indecol/">www.ntnu.edu/indecol/</a> or from Professor Edgar Hertwich, e-mail: <a href="mailto:edgar.hertwich@ntnu.no">edgar.hertwich@ntnu.no</a> and Senior Researcher Richard Wood, e-mail: <a href="mailto:Richard.wood@ntnu.no">Richard.wood@ntnu.no</a>.

#### Salaries

Post doctors are remunerated in code 1352, in the State salary scale 57-76, gross NOK 455 900 to NOK 654 600 per annum (before tax). Post doctors are normally remunerated at wage level 57. There will be a 2 % deduction to The Norwegian Public Service Pension Fund from gross salary.

The appointment of the Post doctor will be made according to Norwegian guidelines for universities and university colleges.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants.

The position adheres to the Norwegian Government's policy of balanced ethnicity, age and gender. Persons with immigrant background are encouraged to apply. NTNU's objective is to increase the number of females in scientific positions. Female applicants are therefore encouraged to apply.

Applications with CV, certified copies of transcripts and reference letters should be submitted electronically through this page. Mark the application with **ref.no. IVT - 37/12**. The attachments to the application should preferably be gathered in one single file. **Application deadline: 30April, 2012.** 

## **Tilleggsinformasjon**

### Arbeidssted: