

PhD Position

On economic agent-based modelling for a low carbon economy

Full-time position for 4 years

CSTM, University of Twente, the Netherlands

Vacancy number 618179

Job description

We are seeking a PhD student (4 year terms) to join in a EU-funded project on the development of advanced techno-economic modeling tools for a 'low carbon' economy. A multidisciplinary multinational team of scholars aims to develop a suit of integrated models that links climate-energy-economy systems at various geographical scales ranging from individual households to global level. The overall goal of this EU project is to account for nonlinearities, feedbacks and regime-shifts in socio-economic systems when quantifying the impacts of climate change mitigation policies across economic and social sectors. The specific research project of a PhD student will focus on the development of an economic agent-based model (ABM) to explore the emergence of non-marginal changes in energy markets modeled as complex adaptive systems. ABM will zoom into the dynamics of the energy sector driven by behavioral change at the household level and diffusion of low-carbon energy technologies among energy producers.

Requirements

A candidate should ideally have :

- a master's degree in Economics, Mathematics or Computer Science
- strong quantitative skills and ability to program in Java, C++, R, or similar languages
- capacity to design surveys, analyze data
- fluent written and spoken English
- independent research and publication skills
- knowledge in the field of climate mitigation & energy policies is an advantage.

Conditions of employment

As a PhD candidate you will be appointed in a full-time position for a period of four years, at the end of which you must have completed your PhD thesis. The gross monthly salary for a PhD increases from € 2083 in the first year to € 2664 in the final year (in accordance with the Collective Labour Agreement for Dutch Universities). In addition, the University of Twente offers additional attractive employment conditions.

The PhD candidate will join CSTM department at the School of Management and Governance of the University of Twente, which offers multidisciplinary inspiring environment. The PhD candidate will also closely work with the Economic team of the Strategy and Policy department at [TNO](#) (Netherlands Organization of Applied Scientific Research) on integrating the ABM with a computational general equilibrium model (CGE). Research stays at TNO are optional.

Starting date: by arrangement in the period January 2014 - March 2014. Position will remain open till filled. First reviews and interviews will start on December 5th 2013.

Information

For more information on this position please contact

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Application

To apply for this position, please fill in the [online application form](#) including your cover letter, resume and list of publications (if applicable) before **December 5th, 2013**. Or go directly to www.utwente.nl/vacatures/ and select the current position from the list.

Organisation

The [University of Twente](#). We stand for sciences and technology. High tech and human touch. Education and research that matter. New technology which drives change, innovation and progress in society. The University of Twente is the only campus university in the Netherlands; divided over six faculties we provide more than fifty educational programmes. The University of Twente has a strong focus on personal development and talented researchers are given scope for carrying out pioneering research.

The **School of Management and Governance (SMG)** strives to hold a leading position in the field of business and social sciences and to do joint education and research with the technical schools of the University of Twente. The school focuses on management, governance, innovation, technology and entrepreneurship. In all these fields, the school provides bachelor, master and professional development programmes. In addition, scientific and applied research is carried out in various branches, such as sustainable development, health care, higher education, banking, and services business. Research is accommodated within the university research institutes: The Institute for Governance Studies (IGS), and the Centre for Telematics and Information Technology (CTIT).

The PhD position is offered within the **Centre for Studies in Technology and Sustainable Development (CSTM)**. CSTM specializes in governance with a strong emphasis on sustainable development, environmental quality, and technological innovation - from both developed and developing country perspectives. CSTM does that in two priority areas – water and energy – and studies their interplay and dynamic management in application to climate change mitigation and adaptation.