

EIFER is a research non-profit organization located in Karlsruhe; its members are EDF and KIT. We are currently looking for a

## **Research Fellow**

### **Agent-based modeller**

#### **General description**

For the development of the ongoing work on the modelling of smart grids systems, EIFER (KIT/EDF) is looking for a modeller who develops an agent-based application in an innovative experiment on smart grids in the south of France. In the near future, smart grids are intended to improve the exchange of electricity between suppliers and consumers through the deployment of information and communication technologies (ICT). An internet-like network designed to establish communications as well as special digital electronics to control energy generation and consumer demand are needed to set up this complex computer system. It will allow suppliers to monitor client power consumption remotely, implement variable energy costs, and so avoid long-lasting peak periods or circuit overload situations. Also, consumers will be able to monitor their real time power consumption, which could be used to control loads by switching devices during peak and off-peak times in order to benefit from lower tariffs.

#### **Description of the work**

Modelling of the residential energy consumption behaviour in an ABM environment (Anylogic). The work will be developed at EIFER (Karlsruhe), but implies frequent travels to Paris and to the south of France. The model will be implemented as a module in a larger model of smart grids, under development in EIFER.

#### **Requirements**

- Experience on Agent Based modelling
- Proficiency in at least one of the following languages: English / German / Spanish / French
- French conversation level mandatory
- Social sciences background (Master or PhD level)
- Interest in energy systems

#### **Opportunities**

- Work with one of Europe's biggest energy companies
- Travel and work with real data
- Intercultural workplace
- Interdisciplinary work environment
- Formation opportunities

The duration of the position is initially two years with the option of extension, starting as soon as possible. The salary is based on qualification and experience according to TV-L (100 %).

KIT is pursuing a gender equality policy. Women are therefore particularly encouraged to apply. If qualified, handicapped applicants will be preferred.

If you want to join a highly motivated research group, please forward your application until **30 April 2010** including all relevant information (curriculum vitae, copies of testimonials etc.) to

Pablo Viejo García  
Group Manager  
Geosimulation for Energy Research  
Emmy-Noether-Straße 11  
76131 Karlsruhe  
Telefon: 0721 6105 1488  
Telefax: 0721 6105 1332  
mailto: pablo.viejo@eifer.org