



ingeniería termo-energética y energías renovables  
thermo-energetical engineering and renewable energies

E4-Experts  
energía exergía economía ecología SL

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## Job offer

# Software engineer

## for the development and maintenance of free and open source software in Python in the field of energy efficiency and renewable energies

*(Berlin, 18th of August 2010)*

energyXperts (E4-Experts SL) is a consultancy and engineering company for thermal energy systems and renewable energies, with a consolidated experience in these fields since 1991. energyXperts disposes of offices in Barcelona (Spain) and Berlin (Germany) and manages a big network of relationships with other companies and research institutes of the sector on a European and international level ([www.energyxperts.net](http://www.energyxperts.net)).

The objective of energyXperts is to offer to the customer high-quality solutions that integrate and maximise energy efficiency and renewable energies.

energyXperts at present is a private company (Ltd. - Spanish "Sociedad Limitada"). However, in the next future a shift toward a cooperative structure is foreseen, and, therefore, for new incorporations preference will be given to candidates with an affinity for this type of company organisation.

### Specific fields of work:

In the last years since 2007, energyXperts, in collaboration with a European consortium, has developed the software tool EINSTEIN (expert system for an intelligent supply of thermal energy in industry), that supports energy auditors in energy auditing and energy consulting to industrial companies (data acquisition and analysis, generation of proposals for energy saving, reporting, ...).

EINSTEIN is a free and open source software available under [www.sourceforge.net/projects/einstein](http://www.sourceforge.net/projects/einstein). EINSTEIN is written in Python (GUI based on wxPython, graphics using matplotlib) and using MySQL as a database server.

The main tasks of the new software engineer are:

- to maintain the software (bug-fixing) and give support to users with IT related problems
- to further develop the IT related aspects of this software (improvement of GUI, data bases, software structure, graphics, etc.) in the Framework of the new European project EINSTEIN-II and complementary national projects

- analyse the present structure of the software and generate proposals for future improvements
- coordinate subcontracting of external IT related services and collaborations

As a complementary task the new software engineer will be also responsible for the maintenance of the IT net and equipments in the Berlin office of energyXperts, and optionally, for the (gradual) shift from Windows to Linux.

**Required skills:**

- Experience and good basic knowledge of state-of-the-art in software engineering in general
- Experience with software development in Python and MySQL or similar data base servers.
- Good knowledge of spreadsheet programming (OpenOffice Calc and/or MS Excel), incl. basics of macro programming
- Affinity with the free and open source community and philosophy. Knowledge of most relevant open source tools
- Capacity for working in group; capacity to generate innovative solutions autonomously.
- Languages: Good level of English required, suitable for fluid written and spoken communication in an international working environment. Good level of German would be desirable, but not strictly necessary.

**Optional skills:**

- Experience in the development of web applications.
- Basic knowledge of tools and methods for dynamic system simulation (e.g. Modelica language, TRNSYS software, Matlab-Simulink, or similar)
- Basic knowledge and interest in energy related issues (especially thermal energy and renewable energy).

**Conditions of the contract:**

- The candidate will be incorporated in the office located in Berlin.
- Part-time contract 25 hours/week
- Duration of the contract: 15 months (September 2010 – November 2011), with the possibility of extension and – if desired – increase of weekly working hours
- Salary: to be agreed, depending on qualification and experience. Please together with your CV, indicate your expectations with respect to remuneration.

**Contact for more information and for sending your CV:**

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