The institute of Energy and Climate Research Energy Systems Engineering (IEK-10) focuses on the development of models and algorithms for simulation and optimization of decentralized, integrated energy systems. Such systems are characterized by high spatial and temporal variability of energy supply and demand as well as by a high degree of interdependency of material and energy flows. Research at IEK-10 aims to provide scalable and faster than real-time capable methods and tools which enable the energy-optimal, cost-efficient and safe design and operation of future energy systems.

We are looking to recruit a

**Software Developer - Development and Implementation of Modern Power System Simulation and Operation Solutions**

**Your Job:**
The energy turnaround in Germany leads to an increased integration of renewable energies, an increasing coupling of different forms of energy such as heating, cooling, and electricity as well as a more dynamic operation. Your tasks in detail:

- design, implementation, and documentation of software solutions for the planning and operation of energy systems, this includes simulation environments for interdisciplinary considerations on both the equipment and system level which can be used for scientific analysis and evaluation, e.g. as a basis for recommendations for industrial users and political decision makers
- develop and implement software tools for pre- and post-processing of data, such as system topologies, real-time measurements, simulation results, etc.
- support your colleagues in the use and integration of software solutions

**Your Profile:**
A university degree (Bachelor or Master) in computer science, electrical/electronic technology, software engineering, or a similar subject of study is required

Very good knowledge of programming in C/C++ is required

Good Linux knowledge regarding handling and software development is required

Excellent cooperative working skills are required

Very good communication skills in English are required

Furthermore is of advantage:

Knowledge of script languages, such as Python and Shell

Experience in system as well as parallel programming and the programming of real-time capable systems

Knowledge in the field of modelling and simulation (especially of energy systems)

Our Offer:

A highly motivated working group within one of the largest research institutions in Europe

Excellent scientific and technical infrastructure

Participation in project meetings and international conferences

Further development of your personal strengths, e.g. through an extensive range of training

Flexible working hours and various opportunities to reconcile work and private life

Limited for 2 Jahre years with possible longer-term prospects

Full-time position with the option of slightly reduced working hours

Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD). Depending on the applicant’s qualifications and the precise nature of the tasks, salary grade EG 10-11,13 TVöD-Bund

Depending on the nature and extent of the tasks delegated, an additional temporary IT professional allowance may be considered

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations.

We also welcome applications from disabled persons.