



Shaping change: this is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association with some 7,600 employees, we conduct interdisciplinary research into a digitalized society, a climate-friendly energy system, and a sustainable economy. We focus on the natural, life, and engineering sciences in the fields of information, energy, and bioeconomy. We combine this with expertise in high-performance computing and artificial intelligence using unique scientific infrastructures.

Would you like to contribute to the energy transition in Germany through your work? Then the Helmholtz Institute Erlangen-Nürnberg (for Renewable Energy) (HI ERN) is the right place for you! The HI ERN forms the core of the close partnership between Forschungszentrum Jülich, Helmholtz-Zentrum Berlin for Materials and Energy, and Friedrich-Alexander-Universität Erlangen-Nürnberg at the Erlangen site. The collaboration relates to the areas of innovative materials and processes for photovoltaic energy systems and hydrogen as a storage and carrier medium for CO₂-neutral energy. Support us researching and developing solutions for the climate-neutral, sustainable, and cost-effective utilization of renewable energies. Further information about the HI ERN and its pioneering research projects can be found at <https://www.hi-ern.de>

Join our team to the next possible date as

Research Associate - Device characterization of tandem solar cells and machine learning

Your Job:

You will be a member of a consortium of leading research institutes and an industry partner. Your task is the build-up of a predictive model for tandem cell stability. Your tasks in detail:

- You receive tandem solar cells from a partner institute and perform high throughput degradation and characterization
- Development of existing predictive models with respect to prediction of time series data in hybrid AI workflows, that is, under consideration of physical model parameters
- Adaption of the protocol of the high throughput characterization to maximize the predictive capacity of the AI model
- Scientific communication of the results (publications, conference presentations)
- Intense interaction with consortium

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form**.

Please note that for technical reasons we cannot accept applications via email. www.fz-juelich.de

Your Profile:

- Master and PhD degree in materials science, physics, chemistry, informatics, machine learning, energy technology or related subjects
- Prior experience in building predictive models using regression techniques, neural networks (CNN, GNN) or symbolic regression
- Experience in the dissemination of scientific results, demonstrated by publications and presentations at conferences
- Willingness and ability to participate in international meetings
- Experience with conducting and documenting scientific experiments as well as processing and analyzing data (Python, Origin)
- Good communication in English; knowledge of German advantageous (but not compulsory)

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- **MEANINGFUL TASKS:** The position offers a varied and diverse role in an international environment
- **WORK-LIFE BALANCE:** Optimal conditions for balancing work and private life, as well as a family-friendly company policy. The option of flexible working (in terms of location) is generally available after consultation and in line with upcoming tasks and (on-site) appointments
- **VACATION:** You will receive 30 days of vacation plus additional days off (e.g. between Christmas and New Year's)
- **FLEXIBILITY:** Flexible working time models, including options close to full-time (<https://go.fzj.de/near-full-time>), allow you to tailor your working hours to suit your individual needs
- **KNOWLEDGE & FURTHER TRAINING:** Your professional development is important to us – we provide targeted, individual support
- **FAIR REMUNERATION:** Depending on your existing qualifications and the tasks assigned to you, you will be classified in pay grade 13 of the TVöD-Bund (Collective Agreement for the Public Service). All information on the TVöD-Bund collective agreement can be found on the BMI website: <https://go.fzj.de/bmi.tvloed> . The monthly salaries in euros can be found on page 69 of the PDF download.
- **ADDITIONAL BENEFITS:** Benefit from attractive additional services such as a company pension scheme with employer contribution. In addition to your basic salary, you will receive an annual bonus and capital-forming benefits
- **FIXED-TERM:** The position is limited to 2 years
- **SUPPORT FOR INTERNATIONAL EMPLOYEES:** Our International Advisory Service makes it easier for international employees to get started
- **CAREER CENTER:** You will receive explicit support with regard to your career development opportunities: <https://go.fzj.de/careercenter>

In addition to exciting tasks and a collegial working environment, we offer you much more: <https://go.fzj.de/benefits>

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

The following links provide further information on diversity and equal opportunities:

<https://go.fzj.de/equality> and on specific support options:

<https://go.fzj.de/womens-job-journey>

Place of employment: Erlangen