

**Job Profiles for CSC-Scholarship Programme 2021
Forschungszentrum Juelich, Germany**

	Position	Institute	Supervisor at FZJ	Research Area/Research Project
1	PostDoc	IBG-2	Prof. Dr. U. Schurr, Dr. F. Fiorani	Crop resilience to climate change / Rapeseed and barley responses to combined elevated CO2 and nitrogen regimes
2	PostDoc	IBI-5	Dr. D. A. Fedosov	Active Matter, Biophysics, Computational Physics / Active soft micro-robots
3	PostDoc	IBI-7	Prof. Dr. B. Strodel	Computational Biochemistry / Force-field development for the simulation of protein-protein interactions
4	PostDoc	IEK-4	Prof. Dr. Y. Liang	Energy, Plasma Physics / Edge SOL transport with an island divertor on W7-X
5	PostDoc	IEK-5	Prof. Dr. T. Kirchartz	Photovoltaics / Fundamentals of interfacial recombination in halide perovskite solar cells
1	Visiting Scholar or PostDoc	IEK-10	Prof. Dr. A. Benigni	Energy Systems / Decentralized control of energy systems
2	Visiting Scholar or PostDoc	IEK-10	Prof. Dr. A. Benigni	Energy Systems / Parallel computing for energy system simulation

1	PhD-Student or Sandwich PhD	IBI-7	Prof. Dr. R. Batra-Safferling	Biochemistry, Protein structure, X-ray Crystallography / Structural studies on blue light photoreceptor proteins
2	PhD-Student or Sandwich PhD	IEK-4	Prof. Dr. Y. Liang	Energy, Plasma Physics / Edge transport and stability in high beta plasmas with an island divertor on X7-X
1	Sandwich PhD	IEK-4	Dr. A. Krämer-Flecken	Energy, Plasma Physics / Investigation of turbulent transport in the plasma edge
2	Sandwich PhD	IEK-4	Dr. O. Neubauer	Energy, Plasma Physics / Edge transport and stability in high beta plasmas with an island divertor on W7-X
3	Sandwich PhD	IEK-4	Dr. S. Wiesen	Energy, Plasma Physics / Combined fluid-kinetic treatment of W transport in JET ELMy H-mode discharges
1	PhD	IEK-12	Dr. N. Vargas-Barbosa, Prof. Dr. M. Winter	Electrochemistry, Physical Chemistry / Light-enhanced ion transport in solid and liquid systems
2	PhD	ER-C	Prof. Dr. J. Mayer, K. MacArthur	Materials Science/Physics / Development of high temperature in-situ EDX analysis for the Study of composition changes in materials
3	PhD	IEK-12	Prof. Dr. W. Zeier	Solide State Chemistry, Electrochemistry / Optimization of solid electrolytes for solid state batteries
4	PhD	IEK-10	Prof. Dr. A. Benigni	Energy System / Conception, design and development of modern power system simulation and control solutions

5	PhD	IEK-10	Prof. Dr. A. Benigni	Energy System / Design of an electricity and gas grid simulation platform for system analysis
6	PhD	IBG-3	Prof. Dr. N. Brüggemann, Dr. A. Graf	Meteorology/Land surface-atmosphere interactions / Forests in a changing climate
7	PhD	IEK-4	Prof. Dr. A. Litnovsky	Materials Science / Studies of advanced SMART alloys with reduced hardness and improved machinability
8	PhD	IBI-3	Dr. Yulia Mourzina, Prof. Dr. A. Offenhäusser	Key Technologies - Sensorics and bioinspired systems / Bio-integrated electrochemical sensor systems based on biomimetic reactivity of metal complexes and nanozymes
9	PhD	IBI-3	Prof. Dr. S. Vitusevich	Biophysics / Nanowire field-effect transistor structures studied ad external optical excitation for advanced biosensing applications
10	PhD	INM-2	PD Dr. D. Elmenhorst, Prof. Dr. B. Kampa	Neuroscience, Life Science / OPTOPET - In vivo neurotransmitter and synaptic density determination of optogenetically altered wakefulness
11	PhD	IEK-1	Prof. Dr. O. Guillon, Dr. Qianli Ma	Cathode materials for all-solid-state-sodium battery / Low-cost and fully environment-friendly cathode materials for stationary all-solid-state-sodium batteries
12	PhD	JCNS-2 / PGI-4	PD Dr. Oleg Petravic	Condensed Matter Physics, Materials Science, Solid State Chemistry / Microscopic understanding and control of the magnetic anisotropy in iron oxide nanoparticles

13	PhD	JSC	Dr. G. Cavallaro	Deep Learning and Remote Sensing / Scalable meta-learning approaches for effective deep transfer learning for remote sensing
14	PhD	PGI-6	PD Dr. D. E. Bürgler	Molecular Spintronics with Chiral Molecules / Spin selectivity of chiral molecules on surfaces
15	PhD	IBG-3	Prof. Dr. R. Bol	Biogeochemistry / Better liming for sustainable agriculture
16	PhD	IEK-5	Prof. Dr. U. Rau, Dr. K. Ding	Photovoltaics / Doped zinc oxides fabricated by PECVD and their stability in the application of silicon heterojunction solar cells
17	PhD	IEK-5	Prof. Dr. U. Rau, Dr. K. Ding	Photovoltaics / Flexible and light-weight silicon heterojunction solar modules for vehicle integrated photovoltaics
18	PhD	IBG-3	Dr. B. Wu	Biogeochemistry / Quantification of potassium (K) use efficiency in modern agricultural ecosystems using K stable isotopes
19	PhD	IEK-1	Prof. Dr. O. Guillon, Dr. N. H. Menzler, Dr. M. E. Ivanova	Proton Conducting Ceramic Cells / Towards a proton conducting cell with boosted performance and stability through advanced microstructural design
20	PhD	INM-4	Dr. J. Dammers	Machine and Deep Learning, Data Science, Neuroimaging / Deep learning-based analysis in functional neuroimaging

21	PhD	INM-4	Dr. J. Scheins	Positron Emission Tomography (PET), Neuroimaging, PET/MR hybrid scanners / Analysis and application of advanced PET detector information for high-performance image reconstruction
22	PhD	IBI-7	Prof. Dr. J. Labahn	Structural Biology of Proteins Relevant in Infectious Diseases / Interaction of bacterial virulence factors with gamma secretase
23	PhD	IBI-3	Prof. Dr. A. Offenhäusser, Dr. D. Mayer	Biomedical Research, Bioelectronics, Biomaterials / Organic electrochemical transistor for the detection of chemical and electrophysiological cell signals
24	PhD	JCNS-2 / PGI-4	Dr. C. Bednarski-Meinke, Dr. M. H. Hamed	Solid State Physics, Condensed Matter Physics, Materials Science / Engineering oxide interfaces for coupled magnetic and resistive switching in transition metal oxide heterojunctions
25	PhD	IBG-2 / ZEA-3	Dr. B. Arsova / Prof. Dr. P. Huesgen	Plant Physiology, Molecular Biology, Biochemistry / Elucidation of nitrogen related signalling processes and regulation of complementary metabolic functions in Arabidopsis
26	PhD	IBG-3	Dr. C. Montzka	Remote Sensing of Land Surface Fluxes / Spaceborne monitoring of latent heat fluxes in agricultural ecosystems
27	PhD	IEK-5	Prof. Dr. T. Kirchartz	Photovoltaics / Fundamentals of interfacial recombination in halide perovskite solar cells