

HUMBOLDT FOUNDATION

Dr. Muhammed Shirjeel Khan, who is conducting research as a postdoc at the Institute of Energy and Climate Research: Materials Synthesis and Processing (IEK-1) at Forschungszentrum Jülich as a Humboldt fellow, talks about his experiences at Jülich

“THE HUMBOLDT FOUNDATION REALLY TAKES CARE OF YOU!”



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You came to Forschungszentrum Jülich as a Humboldt fellow in 2021. How did you hear about this fellowship?

Dr. Muhammed Shirjeel Khan: My doctoral supervisor told me about it. One major requirement to apply for a Humboldt fellowship is to find a host institute. I immediately thought of the author of several articles I had read in my field of research, namely Prof. Norbert Menzler from IEK-1. I got in touch with him and asked him if he would host me. He agreed and I wrote a proposal, which Norbert then helped me to finalize.

Was this fellowship in Jülich your first longer stay abroad?

Dr. Muhammed Shirjeel Khan: No, I already had experience studying and researching in different countries. After my bachelor in materials engineering at GLK Institute of Engineering Sciences and Technology in my home country (Pakistan), I went to South Korea for my master's degree. After that, I obtained my PhD at the University of Queensland in Australia. Then, I went back to Pakistan and worked as an assistant professor for around one year at my alma mater, and now I am doing my postdoc in Germany.

How has your research profited from your stay in Jülich?

Dr. Muhammed Shirjeel Khan: My research topic is fuel electrode development for solid oxide cells. These devices have great potential for stationary power generation and hydrogen production in future. At Forschungszentrum Jülich, I have been introduced to many different techniques. Some of them, I was actually aware of before I came here, but I had worked with them on a much smaller scale. Here, it is possible to work on bigger cells, and in our bi-weekly group meetings, it is always interesting to learn about the different partners who are pursuing the development of this technology on a much larger scale. I have learnt a lot about processing, testing, characterization, and safety issues. All of this has been very useful for me. Also, thanks to different seminars, I have had the chance to improve my communication, networking, and presentations skills.

You have a lot of experience with different research cultures. How does Germany compare to the other countries you have worked in?

Dr. Muhammed Shirjeel Khan: In South Korea, it is very easy to get in touch with the suppliers and you can therefore get the required equipment or chemicals very quickly. This helps you to conduct your research at a much faster pace and you can publish more research articles. I also published three research articles during my master's studies and this work set me on a defined career path and helped me to secure a fully funded scholarship for my PhD in Australia. In Australia, I felt totally free. I went to the lab whenever I wanted; there were no fixed hours of work. I could even go to the lab at night. Now, in Germany, there are certain hours during which we can work in the labs. There is also a 2-person rule after 17:00. This is for safety reasons. When you work with hazardous materials, one other person needs to know where you are and communicate with you from time to time. From a safety point of view, this is very important, but it takes away the freedom that you can have in Australia. I was single during my PhD in Australia, so I enjoyed the freedom, but now I have a family, and from this point of view, it is better to have fixed hours and spend time with your family after work.

So you are staying in Jülich with your family. How do they like it here?

Dr. Muhammed Shirjeel Khan: My wife's overall experience has been very good. Jülich is an international city so it is easy for her to communicate with people in English. She enjoys the overall quality of life, the safety, the food, the weather, easy access to parks, markets and public transport etc. Germany is worth visiting and worth living in, not only because of the research facilities but also because of cultural aspects. However, sometimes we experience language problems. So right now, we are trying to improve our German language skills.

What are your options after the end of your postdoc?

Dr. Muhammed Shirjeel Khan: The Humboldt Foundation really takes care of you. They know that once you have a baby, it is difficult to spend 100 percent of your time in the lab. So, for this reason, if you are unable to finish your planned research in due time, they offer the option of extending the stay for up to one year. This could be one option for me. Parallel to this, I am looking into other options like jobs in industry or at other research institutes or in academia. Right now, I am quite open and flexible, and if I cannot find a job here, I will extend my search to other countries.

Can you draw any conclusions regarding your stay in Jülich as Humboldt fellow?

Dr. Muhammed Shirjeel Khan: I would definitely recommend the Humboldt fellowship to others. It gives you a lot of freedom to pursue your own research. There is also an option of first taking a language course, which I would advise other fellows to do. This is very helpful in searching for jobs after your fellowship expires. Once you finish your fellowship and want to go back to your home country, the Humboldt foundation supports you in different ways. Their motto is: "Once a Humboldtian always a Humboldtian". You can apply for additional stays for up to 3 months to work on different aspects of your research topic, and you can apply for multiple stays. They also give you the opportunity to invite your German supervisor to your country for research talks and presentations. It is also possible to apply for up to 20,000 euros to purchase some equipment to continue your research in your home country. During your stay in Germany, there are regular meetings within the fellowship programme, where you have the chance to meet other fellows and to which their families are also invited. You also get a chance to explore different cities. You even get to meet the German President at an annual event that takes place in June in Berlin!

The interview was conducted by Kristin Mosch.