

INTERVIEW

with Rudina Subaih, Palestinian-German Science Bridge (PGSB) Fellow, master student at the Arab American University (AAUP) in Jenin, Palestine, and at the Institute for Advanced Simulation – Department for Civil Safety Research (IAS-7) at Forschungszentrum Jülich.

“BEING A PROGRAMMER MEANS TAKING RISKS AND CHANGING THE CODE”



You are currently working on research to complete your master thesis. How did you get the idea to apply for a scholarship from the Palestinian-German Science Bridge?

Rudina Subaih: I had been looking for a chance to go abroad and try to study in a European country for some time when my professor at Arab American University, Dr. Mohammed Maree, told me about the PGSB program. Dr. Maree had submitted a thesis project offer in the field of “Pedestrian Dynamics” to PGSB in collaboration with Dr. Mohcine Chraibi from Forschungszentrum Jülich. After getting more information from him, I applied for the project.

What is your academic background?

Rudina Subaih: I have a bachelor's degree in computer science and am currently completing the final year of a master program in the same field. After finishing my bachelor's degree, my plan was to get a few years of professional experience in the field before returning for a master's degree. So I trained to be a web developer and worked in this function for a few different companies in Palestine. In my last company, I started as a web developer, but after identifying that the company needed to improve their social media presence, I volunteered to fill this position. From this point, I became head of the social media team for five branches of the company. Then one day, my professor at the Arab American University called and offered me a partial scholarship as encouragement to join the master program, based on excellent performance during my bachelor studies. I accepted the offer and in addition to my studies, I worked as a part-time lecturer in the computer science department. Last year, I applied for and was granted a PGSB fellowship to complete my master thesis in the field of pedestrian dynamics. As part of my thesis plan, we performed single-file movement experiments for the first time in Palestine to investigate the movement characteristics of Palestinian pedestrians. We replicated the same experiment conducted in Germany, India, China and Japan. We then compared our results with other cultures' study results. Also, we studied the effect of gender on the movement characteristics of pedestrians. First, we used a video camera to record the movement of male and female students from the Arab American University. Then, we extracted the trajectories for each pedestrian from these videos to calculate the movement quantities such as velocity, density and headway distance. Some of the results of our experiments were presented and published at the 11th International Conference for Computational Collective Intelligence (ICCCI) in a paper entitled 'Gender-based insights into the fundamental diagram of pedestrian dynamics'.

What is the field of application for this research?

Rudina Subaih: There are various applications for pedestrian dynamics, for example design of buildings and stations with respect to safety or comfort, planning and designing of mass gathering facilities and events, improving socially-aware robots, or improving autonomous vehicles.

Is this your first stay in a foreign country? How was your experience arriving in Germany?

Rudina Subaih: I travelled a lot during my childhood. I was born in the Sultanate of Oman, where my father worked as a teacher for many years. My family visited several different countries, including Saudi Arabia, the United Arab Emirates and Jordan. These travels gave me a love of exploring and the curiosity to learn more. Travelling and meeting new people from different backgrounds made me realize that every culture has certain strong points that are worth getting to know. The periods spent abroad also brought my family – me, my parents and my five brothers and sister – very close together. We support each other in reaching our goals and succeeding. Of course, everything was new and unfamiliar when I arrived in Germany. It was not my first time visiting Germany, but it was the first time I stayed longer than two weeks. It took about one month to adapt to the new language, new lifestyle, new culture and new types of food. After the first month, I started to feel like this place was my second home. The people are very kind and cooperative. Both the other members of the PGSB program and my

colleagues in the IAS-7 are very supportive. I can ask them for help any time I need it. In my free time, I travelled to different places in Germany and Europe and I learned a lot about these countries and their cultures. I am proud of these experiences and of how they have influenced me as a person.

Did you notice differences in the research culture?

Rudina Subaih: Here in Germany, they have the required equipment and technology as well as a broader knowledge and more experience in my field of study, pedestrian dynamics. This enabled me to accomplish a lot for my master thesis. In addition to support from my supervisor in Jülich, I also received a lot of support from my professor at my home university. We have a weekly Skype meeting to discuss my progress.

You will finish your thesis in a few months. What are your plans for the future?

Rudina Subaih: First, I will return to Palestine to defend my thesis. After that, I'm planning to continue my studies and look for a PhD position, preferably in Germany. It would be wonderful for me to spend more time in Germany and I would love to learn as much as possible about the German culture. There is always more to learn, especially to reach a level where I can share my knowledge and experience with others in my home country. In the long run, I would like to research and teach at a university. By teaching you learn more, and I believe knowledge has to be constantly kept up-to-date. I learned this giving introductory courses in computer science at my home university. In any case, it is important to pass knowledge on so that others can also profit from it – my father taught us this. This is the reason I always try to teach my students useful information for everyday life, such as how to use social media safely or what to consider when buying a laptop.

How are the employment chances for women in Palestine?

Rudina Subaih: There are good chances for women, for example in management or in marketing. In my discipline, however, there are more men than women. In my experience, women are more afraid to change the code. That's because they want to make sure to do everything correctly. But if you program, you have to change the code. You have to be willing to take risks.

How would you sum up your experience in Germany?

Rudina Subaih: I would like to thank my supervisors Dr. Mohammad Maree and Dr. Mohcine Chraibi, for their guidance, encouragement and support. Also, I thank the PGSB program for giving me this great opportunity, the head of IAS-7, Prof. Dr. Armin Seyfried, and the whole team for their support, the Arab American University for their help, colleagues, friends and finally my great family.

The interview was conducted by Kristin Mosch.