

TIPS2022: Reflection of a PhD student

By Leen Jabban



I am a PhD student at the University of Bath working on sensory feedback for upper-limb prostheses. My background is in mechanical and electrical engineering, but I chose to step out of my comfort zone and carry out some work on understanding user needs through qualitative methods (what I presented in TIPS!).

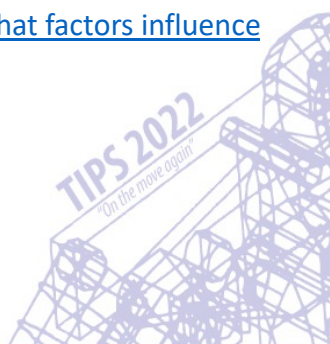
Having spent most of my PhD during COVID, I was used to online conferences and their limitations in terms of networking. However, my experience with TIPS was very different to the other conferences so I chose to talk about why that is the case.

1. Level of Engagement

What surprised me most was the level of engagement at the conference. The platform was very well used for questions and private chats to elaborate on specific points, and the focus on upper-limb prostheses meant that all the talks were relevant. I enjoyed chatting to other early career researchers in the networking session. Despite being online, I felt like I had actually met a lot of people during the conference and probably had more chats than I would have in an in-person one!

2. Presenting my work

I enjoyed presenting my work on [the user needs for sensory feedback systems](#) and having people message me about it after the talk. The clinical focus of the conference meant that there were a few talks similar to mine. I particularly enjoyed Rachael Lovegrove's talk on [what factors influence the user's choice of upper limb prosthesis](#).



3. Chairing a session

The organising committee was keen on having presenters in their early careers chairing sessions, so this was a great opportunity for me to try this. Marieke Harmer-Bosgoed and I chaired the 7th free paper session which included interesting talks about the [treatment of phantom limb pain with augmented and virtual reality](#), [the use of virtual reality and sensory stimulation to augment the sensory phantom map](#), [evaluating the quality of life and pain following upper limb targeted muscle reinnervation](#) and the [influences affecting acceptance and rejection of prosthetic usage](#).

The one thing I was worried about most was coming up with questions in case no one had any but, in fact, we struggled to find time to answer all the questions that came through!

4. Interdisciplinary nature

Listening to the various approaches to thinking about upper-limb prostheses was thought-provoking and led to very good questions. One of the talks I was completely fascinated by was the one on the [dexterous fingertip terminal device](#) combining the benefits of gripper and multi-articulating hands- such an interesting out-of-the-box idea! I also enjoyed learning about [mental rotation and how that can be linked to prosthetic hands](#), [the potential benefits of smart EMG electrode housing](#), and [the use of ultrasound for the control of prostheses](#).

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