

Profile: Rou Jun Toh

Postdoctoral Fellow, SEAM RMIT University.



Rou Jun Toh is a Postdoctoral Fellow with the Australian Research Council (ARC) Industrial Transformation Training Centre in the Surface Engineering for Advanced Materials (SEAM) with RMIT University.

Rou Jun obtained her PhD in Chemistry and Biological Chemistry (2017) from Nanyang Technological University (NTU), Singapore, where she established herself in the field of materials. She moved to Melbourne for her first Postdoctoral Fellow position with CSIRO in 2017, and subsequently joined RMIT and SEAM in 2020 to work on a university and industry collaboration project with Romar Engineering Pty Ltd and RMIT University in *Optimization of surface properties of additive components using an additive/subtractive machine.*

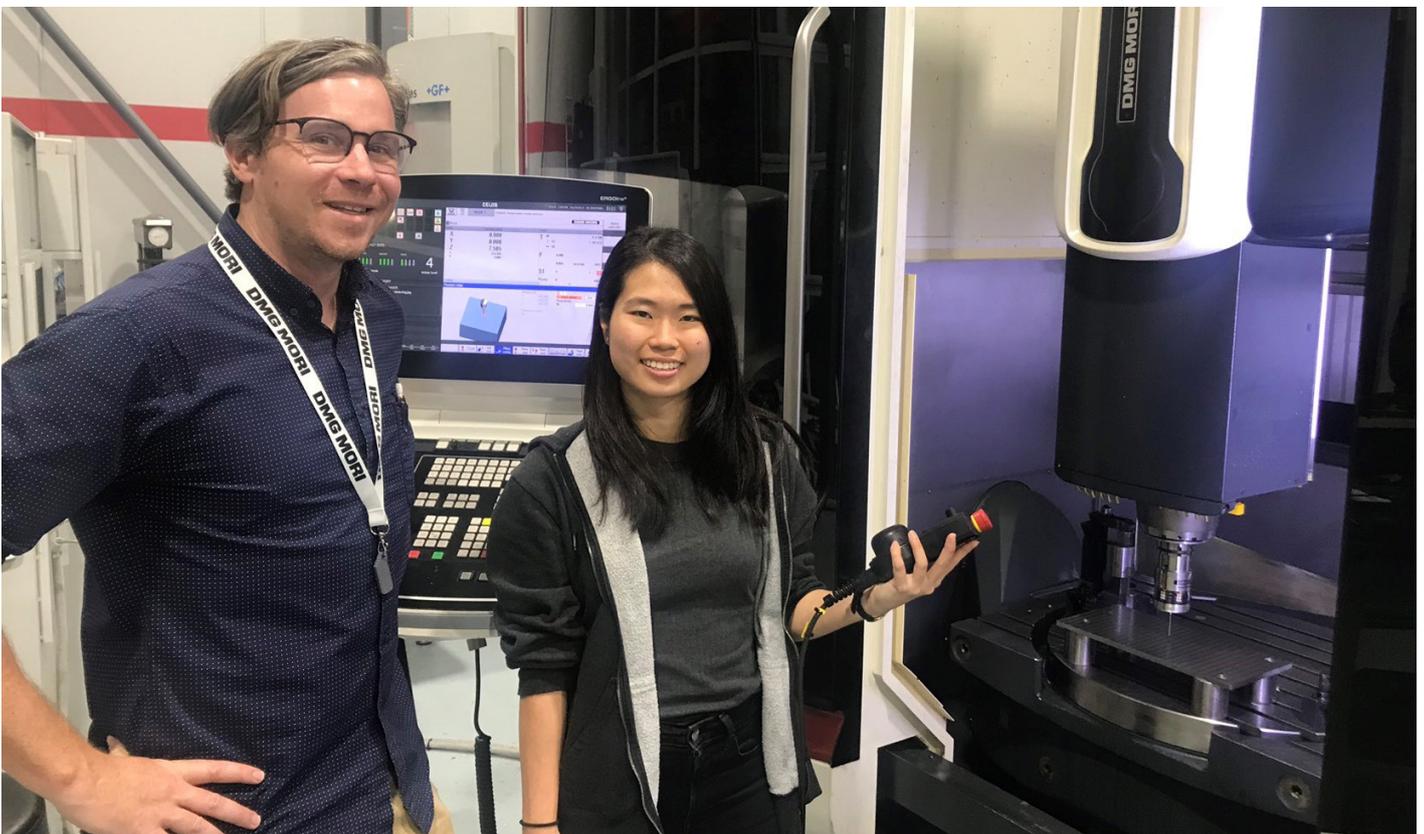
Rou Jun's work on the SEAM project with industry partner organisation, Romar Engineering aims to optimize manufacturing approaches using the DMG Mori Lasertec 65 3D 5-axis

synchronous laser deposition, welding and milling machine. The Lasertec 65 is a 3D printer with unique metal-on and metal-off capability and Romar Engineering is able to provide clients with the exceptional flexibility to create innovative new parts, and repair, replace or renew existing ones. Thus far on this industry project Rou Jun has provided leadership and expertise and developed a 3D visualisation and analytical tool that can be employed for quality assurance and control purposes. Moreover, Rou Jun fulfils a critical leadership role where she works with two doctoral candidates and plays an important role in training two industry ready and fit researchers who will have the ability to operate the Laser 65 autonomously to deliver key outcomes and capabilities to solve crucial materials engineering problems. This will provide commercial benefits to the industry partner. In addition, it will, without a doubt, provide the Australian manufacturing industry with a competitive edge and put it in par with other global leaders.

As a female scientist and researcher, Rou Jun brings diversity and is an asset to the innovative skilled workforce in Australia. She actively engages with STEM education efforts and the scientific community through inspiring the next generation of STEM talents and facilitating collaboration networks on the international and national level. Rou Jun is currently the vice-president of Materials Australia (VIC/TAS branch). Being in this leadership role has helped Rou Jun grow her network and her ability to connect with people and engage stakeholders which will be valuable for her future endeavours.

The development of female STEM talents like Rou Jun would not have been possible without the grant opportunities provided by the ARC and SEAM and their strong vision for diversity and inclusion.

For more information about SEAM, please visit www.arcseam.com.au/ or email seam@swinburne.edu.au.



Steve Milanoski, Head of Advanced Manufacturing, Romar Engineering and Rou Jun Toh, Postdoctoral Fellow, SEAM RMIT University.