

## PhD Scholarship to Investigate Collaborative Learning of Chemistry in Immersive Virtual Reality Environment

Two merit-based PhD scholarships are available for the holders to participate in a research project entitled '*Using Immersive Virtual Reality to Enhance Students' Science Visualisation*' (funded by the Australian Research Council Discovery Project scheme, DP190100160). The project aims to investigate the potential of advanced visualisation technology—immersive virtual reality—as a collaborative learning environment to support students to explore their ideas and learn core chemistry concepts, molecular structures and functions. Incorporating both data analytics and qualitative video analysis, the project will establish an understanding of how students learn about the molecular world within an immersive virtual reality environment in relation to the learners' experience, chemistry content, visual representations, learning tasks, and design features.

The PhD students will collect and analyse the chemistry students' interactions within the virtual reality environment using qualitative video data and quantitative analytics data. They will be supervised by a team of experienced science education researchers (Dr Mihye Won, Professor David F. Treagust, Associate Professor Mauro Mocerino, and Associate Professor Kok-Sing Tang) at Curtin University, Perth, Australia. They will also have opportunities to interact with partner investigators, Professor Chin-Chung Tsai (National Taiwan Normal University) and Professor Roy Tasker (Purdue University).

Candidates for these PhD scholarships are expected to:

- Hold a university degree in chemistry education or relevant field with research experience (e.g., Masters or undergraduate honours);
- Demonstrate an aptitude for research through their analytical and critical thinking skills;
- Be able to work in a team setting and take responsibility for their individual tasks;
- Be experienced in the use of digital technology and software packages;
- Possess excellent spoken and written communications skills; and
- Practice well-developed time- and self-management skills with strong commitment to their work.



The scholarship includes:

- Tuition fee waiver (for international students, \$36,400/year) for 3 years
- Living stipend (\$27,596/year) for 3 years

Interested applicants should contact Dr Mihye Won, ([mihye.won@curtin.edu.au](mailto:mihye.won@curtin.edu.au), +61-8-9266-4074) with their CV, transcripts, and short statements (1 page) outlining why they should be considered for the scholarship. Shortlisted applicants will be contacted for interview.

Scholarship is subject to approval of admission at Curtin University in the HDR course.