Design of Adaptive-Learning STEM Simulations

Scientia PhD Scholarship, UNSW Sydney, Australia

Scientia Scholarship:

The UNSW prestigious Scientia PhD Scholarship Scheme aims to attract the best and brightest people into strategic research areas and provide them with an enhanced culture of research excellence, mentoring, career development, leadership and community. The Scheme provides 4 years of funding for the candidate to complete a PhD at UNSW. UNSW Scientia PhD candidates are awarded a scholarship package of $41,209 per annum (2019 rate, indexed), comprising a tax-free living allowance for 4 years, and a support package of up to $10,000 per annum to provide financial support for career development activities.

Detailed guidelines for the Scholarship can be found at: [https://www.scientia.unsw.edu.au/scientia-phd-scholarships](https://www.scientia.unsw.edu.au/scientia-phd-scholarships)

The university deadline for expression of interest for 2020 applications is **12th of July 2019**. If you are interested in this position you have to contact the supervisory team well before the deadline to arrange for the details of the application process.

Project Description:

The fields of Science, Technology, Engineering and Maths, otherwise known as STEM, play a key role in the sustained growth and stability of any economy including Australia, and are a critical component in shaping the future of our society. But, how can we make teaching these subjects more effective, engaging and accessible? How can we advance the learning outcomes? Our goal is to develop new evidence-based guidelines that will lead to the design of highly effective teaching simulations that personalize training to learner proficiency leading to more efficient learning. This project is an interdisciplinary project between educational sciences and computer science and aims to combine the cutting-edge research from both disciplines.

Candidate:

The ideal candidate will have first class honours or equivalent in relevant disciplines with prior research experience in science/engineering education, some skills in developing computer or web-based learning materials and interest in educational psychology research (cognitive perspective). Having some teaching experience in one of the science/engineering fields is a plus and basic familiarity with machine learning techniques would be an advantage. Candidate with interdisciplinary skills would be highly valued.

Supervisory team:

1. Prof. Slava Kalyuga, School of Education
2. Dr. Gelareh Mohammadi, School of Computer Science & Engineering
3. A/Prof. Nadine Marcus, School of Computer Science & Engineering

Link to the project page:
How to Apply:

For a preliminary evaluation and advice, please send the following information to Prof. Kalyuga at s.kalyuga@unsw.edu.au. Please cc g.mohammadi@unsw.edu.au and nadine.marcus@unsw.edu.au.

1. CV
2. Copy of all transcripts and degrees
3. Copy of publications
4. Motivation letter, explaining how your background and your previous experience fits this project
5. Names and contact details of at least 2 referees
6. English test result (if available)

Recommendation letters can be submitted later and are not needed at the time of application.