**University of Technology Sydney (UTS)** is a dynamic and innovative university in central Sydney. One of Australia’s leading universities of technology, UTS has a distinct model of learning, strong research performance and a leading reputation for engagement with industry and the professions. UTS has a culturally diverse campus life and vibrant international exchange study and research programs that prepare graduates for the workplaces of today and the future. Our City campus is in the heart of Sydney's creative precinct and alongside Sydney's central business district. Over the next three years, the final phase of our [City Campus Master Plan](http://www.uts.edu.au/partners-and-community/initiatives/city-campus-master-plan) will deliver a state-of-the-art campus to meet the needs of 21st century students. Our [Strategic Plan](http://www.uts.edu.au/sites/default/files/strategic_plan_2016.pdf) outlines our vision to be a world‑leading university of technology and provides a strong statement about UTS’s aspirations for our third decade. UTS is part of the [Australian Technology Network](http://www.uts.edu.au/australian-technology-network) of universities: a group of five prominent universities committed to working with industry and government to deliver practical and professional courses. With a total enrolment of over 40,000 students, UTS is one of the largest universities in Australia. Recently, UTS is the #1 young university in Australia, and #8 young university in the world, according to the QS World University Rankings Top 50 Under 50. We're also Australia’s top ranked young university in the Times Higher Education 150 Universities Under 50. At UTS, we are proud to be rated the top young university in Australia and within the top 200 universities globally. It is an outstanding achievement for such a young University.

Within UTS, The **Global Big Data Technologies Centre (GBDTC)** is an international centre of excellence for the development of enabling technologies for big data science, analytics and telecommunications, providing a platform for global collaboration with industry and government to deliver real societal and economic impact. Our research and teaching advances one of UTS’s core strategic initiatives: to become global leaders in big data technologies, big data enabled science and big data analytics. The Centre is a collaborative hub for UTS researchers, prominent professors and scientists from other leading universities in Australia and across the globe, and national research organisations including CSIRO. Our researchers are internationally recognised for impactful [projects](https://www.uts.edu.au/research-and-teaching/our-research/global-big-data-technologies-centre/our-research) at the nexus of science and industry, engineering and IT. Our world-class researchers have extensive links to industry. They are also active in various teaching programs, integrating high-level research practices and outcomes into teaching and learning and fostering a culture of innovation in the next generation of leaders in the field.

**Potential supervisors and their research interests** (total student number should be no more than ten):

Min Xu (2 high quality students, Prefer students with motivation of further pursuing PhD):

Multimedia (including image, video and/or text) data analytics;

Pattern Recognition and Computer Vision;

Machine Learning (e.g. deep learning).

Stuart Perry (2~3 high quality students):

3D scanning to capture objects with complex appearance;

Applications of Virtual and Augmented Reality for teaching;

Realism of Virtual and Augmented Reality;

Quality measurement for 3D environments.

Yang Yang (2~3 high quality students; Prefer students with EEE or relevant background):

Microwave circuit or antenna design for 5G communications (simulation only);

Radio frequency based device free sensing using machining learning algorithm for indoor and outdoor target detection;

Microcontroller based circuit panel for reconfigurable antenna control – real time beam steering and polarization alignment.

Jay Guo (1~2 students; Prefer students with EEE or relevant background):

Antennas and applied electromagnetics;

Wireless communications and 5G;

Wireless sensing and IoT and Big data technologies

Eryk Dutkiewicz (1~2 students; Prefer students with EEE or relevant background):

Performance evaluation and resource optimisation in 5G networks,

Internet of Things (IoT)