

I am actively seeking one new PhD student in **computer science to be part of the** “Towards an Immersive Workplace” project within the five-year, ambitious research program on "Mens, Manus and Machina—How AI Empowers People, Institutions and Cities in Singapore (M3S)" supported by NRF CREATE.

The PhD student will work in the broad area of 3D spatial sensing and spatial computing, using cutting-edge sensing modalities such as LIDAR and neuromorphic (event-based) vision sensors. The proposed research will explore the use of AI techniques to process such spatial/event data on resource-constrained embedded and wearable devices, addressing system metrics such as energy, bandwidth and latency. The research is also expected to use such advances to create novel spatial computing and mixed/augmented reality applications, which support human attention-aware processing of physical environment context. Such applications, in turn, will support the M3S vision of collaborative and interactive execution of tasks between teams of humans and robots/machines. Such work is anticipated to result in publications at prestigious mobile/wearable, human-machine interaction and user interface venues

The successful candidate will be part of, and mentored by, a team of distinguished professors, led by **Prof. Archan Misra** from Singapore Management University, together with Profs. Sanjay Sarma, Jinhua Zhao and Daniela Rus from MIT. The student will be officially a student in the School of Computing and Information Systems (SCIS) at SMU, which provides a generous stipend as well as other standard benefits. The position also offers access to ample computing resources, both at SMU and MIT/SMART, and the opportunity to collaborate with a larger research group spanning MIT and SMU. Researchers in the group routinely publish their work in the most prestigious research venues, such as ACM Sensys, ACM IMWUT, ACM/IEEE HRI, ACM IUI and IEEE ICRA.

The chosen candidate can join during at two distinct points in the year—either in January or in August. To support accelerated execution of research, the successful candidate may also be offered an additional full-time researcher position in SMART M3S prior to the formal enrolment in the Phd program.

Required Qualifications

- B.S/B.Tech (ideally Master’s), with good honors, in Computer Science or Electrical/Electronics Engineering from a well-regarded, academically rigorous institution.
- Experience in deep learning (audio, image), spatial and 3D computing and/or robotic systems applications and projects highly desired.
- Record of publications and co-authorship in top-tier conferences and journals is desired but not essential.
- Competitive GRE score.
- Strong communication and collaboration skills.

More details about SMU/SCIS’s PhD application process and requirements, including a variety of additional scholarship opportunities, are available at: <https://scis.smu.edu.sg/phd>. Interested

candidates are also welcome to contact Professor Archan Misra (archanm@smu.edu.sg; <https://sites.google.com/view/archan-misra>).