Academic Preparations for Augmented and Virtual Reality Strand

Document created 10th July 2019

All Semester 1 modules in the Augmented and Virtual Reality (AVR) strand are assumed to have no pre-requisites beyond the normal admission requirements for the course. However, the below are some advance preparation guidelines that may benefit students joining the AVR strand:

- Note that Computer Vision and Computer Graphics are taught “from scratch” in Semester 1 but may be assumed as pre-requisites in Semester 2. Any previous experience or revision in these areas would be of benefit to students.
- Due to conventional practice in the AVR-related industry and research community, a number of modules may involve tools and libraries in C/C++ or similar languages. Some preparatory work/practice in C/C++ is likely to be of benefit.
- Mathematical concepts are prevalent in Computer Graphics and Computer Vision, which form the cornerstone of AVR-related fields. Although we also offer a Mathematics of Light and Sound Module in Semester 1, revising math topics before joining the course may be of benefit. Some recurring areas include: probability, calculus, linear algebra (vectors, matrices), trigonometry, amongst others.

PLEASE NOTE: CS7CS4 Machine Learning is a common core module compulsory for all strands of the MSc in Computer Science programme, including AVR. This Semester 1 module assumes students have basic knowledge of linear algebra and probability.