

Centre For Advanced Media Technology (CAMTech)



The Centre for Advanced Media Technology (CAMTech) has been developing technologies and applications based on visual computing for more than 10 years. Visual computing describes image and model based information technology consisting of the interrelated fields of computer graphics, computer vision, and virtual and augmented reality.

With its two founding partners, the Fraunhofer Institute for Computer Graphics Research (IGD) Darmstadt, Germany, and Nanyang Technological University (NTU), Singapore, CAMTech's domain of expertise has recently acquired greater significance with Singapore's emphasis on interactive digital media (IDM) as one of its three new R&D areas. This reflects CAMTech's position within the Asia Pacific region as a key player poised to dynamically and effectively meet the demands of countries in the areas of research and development, technology, innovation and training.

Located in Nanyang Technological University, CAMTech was established to conduct research and development activities in integrating scientific academic research with the rigorous demands of the industry market. The centre focuses on applied R&D projects that are relevant and synergize with the immediate and future needs of Singapore, Germany and the Asian region.

CAMTech also acts as a platform for international interdisciplinary interfacing, through various international projects, and its major research alliances. Through CAMTech's close collaboration with Fraunhofer IGD, the centre has gained leverage and pro-



NTU Virtual Reality Theatre:
virtual (top); real (bottom)

vides ready ease of access to many years of R&D effort and leading-edge technology. In particular with the Technische Universität Darmstadt, the partner university of Fraunhofer IGD, CAMTech facilitates the exchange of students between Germany and Singapore. Each year, CAMTech hosts up to five students from Germany to carry out their Masters' theses in Singapore. For the past five years CAMTech also hosts a 2-year postgraduate program leading to a Master of Science in Digital Media Technology. Core modules focus on the basic areas of computer graphics, multimedia, virtual reality, and animation.

CAMTech's Director Dr. Wolfgang Müller-Wittig is also an Associate Professor in the School of Computer Engineering, Nanyang Technological University. In collaboration with the National Institute of Education (NIE) he and his team successfully show the applicability of interactive digital environments in the field of education and culture, with visual solutions such as Augmented Physics Lab, Virtual NanoTechZoo, Virtual Acupuncture Trainer, Augmented Feng Shui, Virtual Peranakan and Augmented Chinese Language Learning Game. With the planned development of Singapore's third medical school as a collaboration between NTU and Imperial College London, this opens up new opportunities for



Virtual/Augmented Reality goes mobile: 3D viewer on iPod Touch



Interactive Virtual Shadow Puppetry using Wii Remote



Strong Network:
Professor Prömel, President TU Darmstadt (right),
Dr Heinzel, Director International Affairs (left),
visited CAMTech, August '09, hosted by
Dr Müller-Wittig

using CAMTech's expertise and learning environments to teach and train medical practitioners. Furthermore, CAMTech currently participates in prestigious international initiatives such as MIT's SMART CENSAM (Centre for Environmental Modelling and Sensing) and ETH's Future Cities.

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