



Professor Edmond C. Prakash

Professor of Computer Games Technology

Edmond Prakash is an Academic, Author, Editor and Researcher. He was appointed Professor in Computer Games Technology in the Department of Computer Science and Technology at University of Bedfordshire in 2010.

As a visual computing expert, Edmond's research focus is on exploring the applications of visual computing across an unusually wide range of disciplines including engineering, business, science, medicine as well as in **entertainment computing**. He has worked on the design and implementation of walkthroughs of proposed structures, such as buildings, automobiles, and humans. In the process he has developed new algorithms for automatically generating object hierarchies, cinematic quality rendering, volume rendering, parallel computation, human modelling and animation for virtual environments. He has more than two hundred publications in academic journals, conferences and books and has worked extensively with companies including IBM, Microsoft, JP Morgan, and Silicon Graphics. He has also undertaken sponsored research funded by EPSRC and the industry. His first academic appointment was at the Supercomputer Centre at Indian Institute of Science as a Senior Scientific Officer. Subsequently, he was an Assistant Professor at Nanyang Technological University, Singapore, then as a Reader at Manchester Metropolitan University and now at University of Bedfordshire. He has an extensive international collaboration and has held visiting positions at NCSA, University of Illinois at Urbana Champaign, USA; CVC at State University of New York-Stony Brook, USA; Touch Lab, MIT, USA and Beijing Normal University, China.

Edmond's main responsibility at University of Bedfordshire is to expand the Computer Games Technology research agenda and also to develop highly sought after, top-tier academic programs in

the areas of Games Technology and Interactive Digital Media both at the postgraduate and undergraduate level.

He is editor of the International Journal of Computer Games Technology, an Associate Editor of the ACM Computers in Entertainment *interactive* journal and his research has been published in every top journal in Computer Graphics including (IEEE Trans. on Visualization and Computer Graphics, IEEE Computer Graphics and Applications, Computers & Graphics, Computer Graphics Forum, Shape Modelling, Journal of Visualization, Imaging Science and Technology and Machine Graphics and Vision). He is a member of the Global Science and Technology Forum and he has also served on over 100 program or technical committees.

Teaching Areas

- Games Technology
- Computer Graphics
- Computer Animation
- Interactive Digital Media
- Computer Programming
- Software Engineering

Research and Publications

Research Interests

- Entertainment Computing: Software Architectures for Games, GPU based Realistic Rendering, Physics and AI for Games
- 3D Computer Animation: Data Representation, Shape Modelling and Synthesis of Animation for 3D Characters
- Facial Expressions: Attention, Behaviour, Interaction and Animation
- Interactive Digital Media: Creation, Processing, Distribution and Consumption of Interactive Digital Media
- Visual Computing: Visualization, Volume Graphics and its applications for Science, Engineering, Business and Medicine.

Research Institute / Centre

Member of the following research institute and centre:

[Institute for Research in Applicable Computing Centre for Computer Graphics and Visualisation](#)

Research Publications (Selected)

- Y.Zhang, E.C.Prakash, E.Sung, New Approach for 3D Facial Modeling and Expression Animation, IEEE Transactions on Visualization and Graphics, 10(3): 339-352, 2004.
- C. Chen and Edmond C. Prakash, Adaptive Processing of Range Scanned Head: Synthesis of Personalized Animated Human Face Representation with Multiple-Level Radial Basis Function, EURASIP Journal on Advances in Signal Processing, Vol. 2007.
- Liu, E. C. Prakash and M. A. Srinivasan, Interactive deformable geometry maps, The Visual Computer, Vol. 23, No. 2, pp. 119-131, 2007.
- Z. Zhi, E. C. Prakash and T. K. Y. Chan, Interactive View-Dependent Rendering over Networks, IEEE Transactions on Visualization and Graphics, Vol. 14, No. 3, 2008, 576-589
- P. K. K. Loh and E. C. Prakash, Novel Moving Target Search Algorithms for Computer Gaming, ACM Computers in Entertainment (ISSN: 1544-3574), Vol. 7 Issue 2 (April/June 2009).
- E. C. Prakash, G. Brindle, K. Jones, S. Zhou, N. Chaudhari and K. Wong, Advances in Games Technology: Software, Environment and Intelligence, Simulation and Gaming (ISSN: 1046-8781), 40th Anniversary Issue, 2009.

Professional Activities

§ Editor-in-Chief, [International Journal of Computer Games Technology](#)

§ Editorial Board, ACM Computers in Entertainment interactive

§ Program Committees in leading international games technology conferences: Cybergames; GDTW, UK; SBGames, SIBGRAPHI, Brazil; CGAT, Singapore; IEEE GIC, UK

§ Member of EPSRC Games Artificial Intelligence Research Network.

§ Reviewer of proposals for AHRC, UK and Royal Society, UK

§ Reviewer for international proposals for Discovery Grants, NSERC, Canada; National Research Foundation, Singapore.