

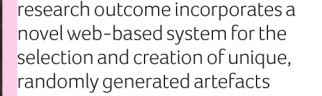
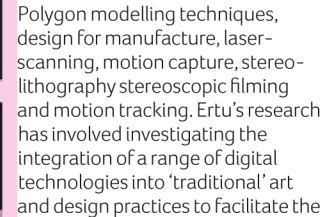
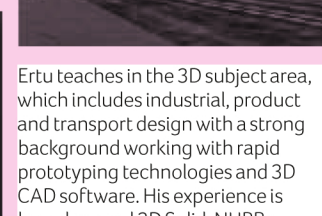
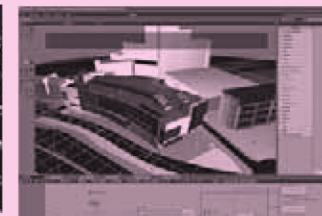
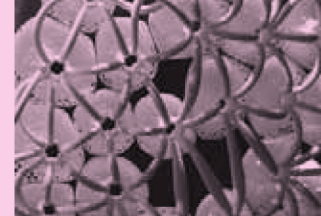
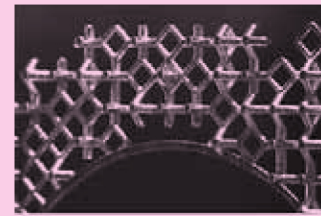


Dr Ertu Unver

Ertu trained as an engineer with 10 years' industrial experience and since leaving industry now has 20 years' academic experience in research and development. As an engineer the areas of responsibility included machine tools and manufacturing technologies. Ertu initially trained as a production engineer before taking a degree in Mechanical Engineering. After gaining a BSc as a mechanical engineer and completing an MSc in Engineering and Computer Programming he has worked as a Research Assistant and academic Senior Lecturer. After completing his engineering PhD in 1994, he became Assistant Professor at the University of Cukurova, Turkey. Ertu entered the product design industry in 1996 when he started working full time for Haltech at the Business Design Centre in Bradford as a designer and CAD/CAM manager. Since joining the University of Huddersfield in 1999 Ertu has produced over 30 research publications.

During this time his teaching has focused on new media technologies and supervision of both undergraduate and postgraduate research including live projects with Rover, Nissan, Morgan, Jaguar, Bayer and DePuy on vehicle and product design and winning various awards. He is currently the CAD/CAM manufacturing and technology specialist for the 3D Digital Design MA, Product Design BA/BSc(Hons) and Transport Design BA(Hons) courses.

stereoscopic voices



Ertu teaches in the 3D subject area, which includes industrial, product and transport design with a strong background working with rapid prototyping technologies and 3D CAD software. His experience is based around 3D Solid, NURBs Polygon modelling techniques, design for manufacture, laser-scanning, motion capture, stereo-lithography stereoscopic filming and motion tracking. Ertu's research has involved investigating the integration of a range of digital technologies into 'traditional' art and design practices to facilitate the creation of innovative new work. Ertu's recent research in CAD/CAM manufacturing and technology includes projects in 'Future Factories' and 'Generative Systems'. This research is part of an ongoing project exploring the potential impact of emerging technologies in direct digital manufacture and generative software. The research outcome incorporates a novel web-based system for the selection and creation of unique, randomly generated artefacts

produced by rapid prototyping. The overarching project – 'Post Industrial Manufacturing Systems' – is a collaborative research project started in 2003 with De Montfort University, University College Falmouth and Sheffield Hallam University.

To date 'Post Industrial Manufacturing Systems' has produced a number of co-authored papers which have been presented at and published in the proceedings of a number of international conferences, including: 'Future Factories': Supportive Technologies as Creative Processes, *Proceedings of the Design 2004*, 8th International Design Conference, Dubrovnik; International Conference on AED Advanced Engineering Design, Prague, Czech Republic (2004); Nordic Design Research Conference, Stockholm, 6th European Academy of Design Conference, Bremen. Another aspect of Ertu's research focuses on the development of a 3D virtual world to support teaching and learning. This project has involved evaluating different 3D virtual environments of the University of Huddersfield campus (and other locations) that virtually re-create new spaces for teaching and learning. He found that virtual 3D worlds provide an effective presentation medium to support virtual group meetings. Although creating 3D environments is relatively easy, designing and building interaction with stereoscopic 3D and motion tracking is very challenging. It is envisaged that future design courses will be able to utilise the multi-use characteristics and interactive nature of this facility to support the development of teaching and learning core material. To date this research has resulted in the following research papers: 'Creating Virtual spaces for Art & Design education: Developmental stages in making and testing an interactive 3D online environment', European League of Institutes of the Arts (ELIA), Teachers' Academy, University of Brighton (2007); 'Educational Online 3D Workshop Simulations', SimTecT (2009) Simulation Conference: Simulation-Concepts, Capability and Technology (SimTecT 2009); International Foundation of Fashion Technology Institutes (IFFTI) (2007) 'Extreme Fashion: Pushing the Boundaries of Design, Business & Technology', title: *Mutating the Realities in Fashion Design: virtual Clothing for 3D Avatars*.

