



**UCL
Engineering
Doctorate**

Virtual Environments
Imaging & Visualisation

Remit

- *Sense*
 - Sensors, Detectors, Tracking
- *Show*
 - 3D, Modelling, Visualization
- *Interact*
 - Interfaces, Games, Social





Prototyping the Post-Perspectival

EngD research conducted by *Thomas Pearce*

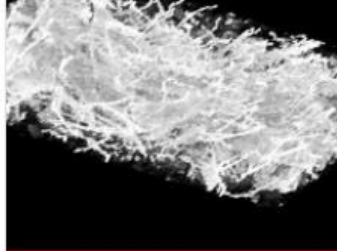
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Probabilistic risk assessment

EngD research conducted by *Valentina Marinicioni*

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Fibre Geometry

A 2013 VEIV EngD Group Project by *Benjamin Champion, Hannah Corcoran and Joep Moritz*

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Rendering Realistic AR Content

A VEIV EngD Project by *David Walton*, 2013 cohort

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Media Multitasking

EngD research carried out by *Jacob Rigby*, 2014 cohort

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Inpainting in panoramic media

EngD research carried out by *Drew MacQuarrie*, 2013 cohort

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Healthier staff diets in the NHS

EngD research carried out by *Lucy Campbell*

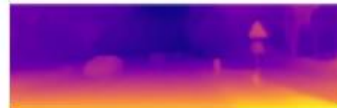
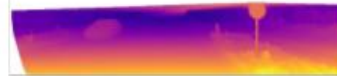
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Life Cycle Impacts

EngD research by *Yair Schwartz*

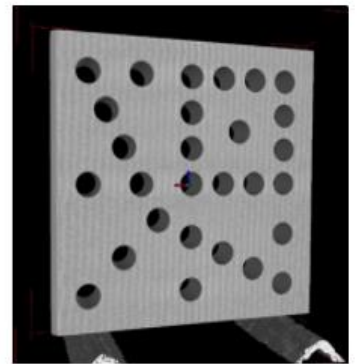
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Estimating Monocular Depth

Research Post from *Clement Godard*, 2012 cohort

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X-ray computed tomography

Research Post from *Hannah Corcoran*, 2013 cohort

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PLP/ARCHITECTURE

 Imagination

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 Ordnance Survey

P&G **Aedas**

 NBT
Natural Building Technologies

intelligence dr foster®

Foster + Partners

 **Disney** Research

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Halcrow
A CH2M HILL COMPANY

 Buro Happold

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 ENW

visionrt

NHS

 anthropics
technology

SKANSKA

CITY OF LONDON **FRAMESTORE**

 National Rail

THz
TERAHERTZ

 CISCO

BBC

 CIBSE

ZSL
LIVING CONSERVATION
ZOOLOGICAL SOCIETY
OF LON

EA

MAXELER
Technologies
MAXIMUM PERFORMANCE COMPUTING

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EngD VEIV

2001 - 2018



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EngD ?

2018 - ?

Center for **Computational Design and Fabrication**

Across many disciplines design, modeling, and fabrication are being increasingly performed in 3D. This creates a unique opportunity to create end-to-end **computational frameworks** to support design and planning by jointly taking into consideration machine limitations, human affordance, environmental context, application-specific regulations, etc.

Sense: Centre for Next- Generation Mixed-Reality

The next-generation of user interfaces will be user-centric, based on advanced virtual reality and augmented reality systems. Sense will have three main strands: development of next-generation mixed-reality systems; content generation, and content platforms for these systems; deployment and application of these systems with a broad range of design, science and engineering disciplines.