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University Industry Collaboration: Research and enterprise activity within University of Huddersfield Product Design courses.

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University and Industry Collaboration

Research and enterprise activity within University of Huddersfield Product Design courses

Glynn Stockton BSc (HONS) PGCE PGDip MSc FHEA

Research Team:
Dr Ertu Unver BSc MSc PhD PgCert FHEA AIED
Dr David Swann MDes PhD FRSA FHEA
Students:
- In Module (Year 2)
- Placement Year
- Final Year Major Project
- KTP
- Post-graduation

Staff:
- Research
- Design
- Facilities
Students: In Module (Year 2)

1

2

3  48 Week Paid Industry Placement

4
Wilkinson

Problem:

Leaving clothes on the floor.

Solution:

Hang Man

A coat hanger that doubles as a hanger.

I don't see hanging it on the floor is one.
Concept 6 - Hangman

- Unique Design
- Can hold an entire outfit
- Injection moulded body so cheap to produce
- Comes in a pack of 3
- Aimed at a younger/family market
- Practical yet novelty design
Will be a simple, single piece of card with two holes cut so that it can fold over the product as a collar. This keeps it cheap to package and doesn't add any recycling issues. The graphics will be clear showing the HangMan logo with the with the brand name above and a brief description of the product. On the back will have the bar code and a larger description.
Wilko Outfit Hangers Girls Pink x 3
£4.00
(6) In stock and ready to ship

1 Quantity ADD TO BASKET

catalogue No: 0334028

Write the first review Follow this product

Description Specification Delivery & Returns

The ingenious Wilko Girls Outfit Hangers come in a pack of three and are ideal for dressing up, wedding outfits and school uniforms. Each complete-outfit hanger holds four items – a shirt, a skirt, a tie and a pair of socks. Get organised the night before and make your mornings easier!
Students: Placement Year

1

2

3  48 Week Paid Industry Placement

4
Students: Final Year Major Project

1

2

3

4

48 Week Paid Industry Placement
Students: Final Year Major Project
3D Digital Design:
3D character and costume design

MA Postgraduate Dan Hughes –McGrail portrayal of Sir Patrick Stewart as Elizabethan Francis Bacon.
Students: Post-graduation


“We only recruit the most talented graduates and benefit from their high level of design skill and knowledge of the latest techniques – new ways of brainstorming, visualising concept and approaching challenge.”

Mike Ganderton, Creative Director LEGO

Marcus Hartley
Design Engineer
Dyson
Students: Post-graduation – KTP

Knowledge Transfer Partnership

### Graduate vacancies with a difference

**Classic KTP Vacancy Advertisements**

<table>
<thead>
<tr>
<th>Area</th>
<th>Info</th>
<th>Salary</th>
<th>Closing date</th>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>East of England</td>
<td>KTP Associate (Embedded Systems Engineer)</td>
<td>£23,500 - £27,000</td>
<td>27/11/2014</td>
<td>(2836)</td>
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<tr>
<td>East of England</td>
<td>Polymer Gear Design Engineer</td>
<td>£22,000 - £28,500 per annum</td>
<td>28/11/2014</td>
<td>(2840)</td>
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<tr>
<td>East of England</td>
<td>KTP ASSOCIATE – ULTRA THIN FILMS USING ATOMIC LAYER DEPOSITION (ALD)</td>
<td>£25,000 - £28,300 pa</td>
<td>15/12/2014</td>
<td>(2850)</td>
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<tr>
<td>North East of England</td>
<td>Mechanical / Manufacturing Engineering vacancy to develop bespoke manufacturing platform</td>
<td>£21,000 - £24,000 per annum</td>
<td>26/11/2014</td>
<td>(2833)</td>
</tr>
<tr>
<td>North East of England</td>
<td>Business Behaviour Analyst (KTP Associate)</td>
<td>£24,057</td>
<td>09/12/2014</td>
<td>(2799)</td>
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<tr>
<td>North West of England</td>
<td>DEMENTIA COMMUNICATIONS FACILITATOR</td>
<td>£23,870-£25,451</td>
<td>12/12/2014</td>
<td>(2847)</td>
</tr>
<tr>
<td>North West of England</td>
<td>SOCIAL DATA SCIENTIST</td>
<td>£21,170 - £21,960</td>
<td>12/12/2014</td>
<td>(2855)</td>
</tr>
<tr>
<td>Scotland</td>
<td>Senior Data Scientist - KTP Associate</td>
<td>£32-35000 pa</td>
<td>27/11/2014</td>
<td>(2817)</td>
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<td>Scotland</td>
<td>KTP Associate</td>
<td>£24,000</td>
<td>30/11/2014</td>
<td>(2859)</td>
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<tr>
<td>Scotland</td>
<td>KTP Associate - Information and Records Management</td>
<td>£21,000-£25,000</td>
<td>01/12/2014</td>
<td>(2837)</td>
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<tr>
<td>Scotland</td>
<td>KTP Associate - Business Development Officer</td>
<td>£25,000 - £27,000</td>
<td>01/12/2014</td>
<td>(2848)</td>
</tr>
</tbody>
</table>
Staff: Research

- Engineering Technology
- Architecture Urban Design
- Medical Research
- Global Disaster Resilience Centre
- Manufacturing Processes
- Digital Technologies
- Heritage Archaeology
- Art
- Fashion - Textile - Surface Design

Product Design
To challenge this, Paxman engaged the expertise of researchers at two of the University of Huddersfield’s academic schools. Initially funded by an Innovation Voucher from Kirklees Council, Paxman started working with the School of Applied Sciences, using its cutting-edge cell biology techniques to help identify the mechanisms that govern patients’ variable responses to scalp cooling. Following additional funding from Knowledge Transfer Partnership (KTP) and Technology Strategy Board (TSB) grants and from the Collaborative Ventures Fund at the University, the School of Art, Design and Architecture then joined the team to investigate the design of the scalp cooling ca
Low Cost Tooling for Product Design(ers) (2012)
Staff:  Design

ABC Syringe
Dr. David Swann

Brittanic Watch
Rob Silkstone

Organ Care System
Glynn Stockton
Enterprise activities

Kinetic Energy Storage Device, ESP Ltd

Paxman Cap

Blister pack opener:

Bob the Builder Tractor: Mackinnon & Saunders

3D Scanning: Mackinnon & Saunders

Wheelie Bin Lock: JA innovation

Portable Potty: Simple Little Creations Ltd

Royal Coat of Arms, 3M Buckley

CNC Learning Software: Kirklees College
Interdisciplinary & International Impact

Rupert Till-Heritage, Music

Jill Townsley, Art

Engineering

Costume

Digital Doubles

Prof Bromley & Prof Ball

Business L’Oreal

International
Current & Future Projects planned:

- **UNICEF Innovation Lab**: portfolio of high impact products
- **Erasmus+**: design methodologies for prosthetic design using RP technologies
- **Others**: *Acoustic* products to reduce noise; Working prototypes of *animatronics* mechanical characters; *Low melting alloy* for forming sheets metals; Novel tooling methods for manufacturing low volume products, application of 3D Printing for tooling, Algorithmic 3D Modelling and visual programming such as using *Grasshopper* for exploring new shapes.
Staff: Facilities
Students and research project from 2003 onwards. Including the Future Factories Project in 2003, at ADA, University of Huddersfield where to research the direct digital manufacture of randomly generated and consumer controlled 3D models. This led to the “Automake Project” in collaboration with Sheffield Hallam and Falmouth Universities. Product/Transport students at Huddersfield used 3D printing for design realisation.
3D Printers at University of Huddersfield:
3M Business Innovation Centre

3M Business Innovation Centre has

EOS FORMIGA P 110
Laser Sintering Machine cost around £200k,
Similar Machines for metal sintering cost over £500k

A wide range of materials are available:
(PA 2200, PA 2201, PA 3200 GF, PrimeCast 101 & PA 2105)

Design for low-dust, ergonomic work conditions
Layer thickness (depending on material): 0.06 mm, 0.1 mm, 0.12 mm
Effective building volume: 200 mm x 250 mm x 330 mm
Building speed (depending on material): up to 20 mm/h
Laser type: CO₂, 30 W
Power consumption: 2 kW

Requires Compressed air supply and integrated Nitrogen generator

BIC offering free 1 day 3D printing and modelling services for local businesses through 2014!
Contact Susan Lipthorpe at 3D BIC
References:


Taylor, Andrew and Unver, Ertu (2012) Biomimetic radiolarian lamp prototypes


Unver, Ertu and Dean, Lionel Theodore (2011) Droplet Lamp Design exhibition

Taylor, Andrew, Harris, Joanne, Unver, Ertu and Lewis, Linda (2011) Exhibition of materials thinking and research: Digital 3D Modelling & Additive Prototypes of Surface Materials


References:


