


## Innovative Research Solutions with Industry

Manufacturing and Green Technology

**CLIENT:**  
Jem Textiles

**AREA:**  
Sustainable Product and User Centred Design

Institiúid Teicneolaíochta Cheatharlach  
 **INSTITUTE of TECHNOLOGY**  
**CARLOW**  
At the heart of South Leinster

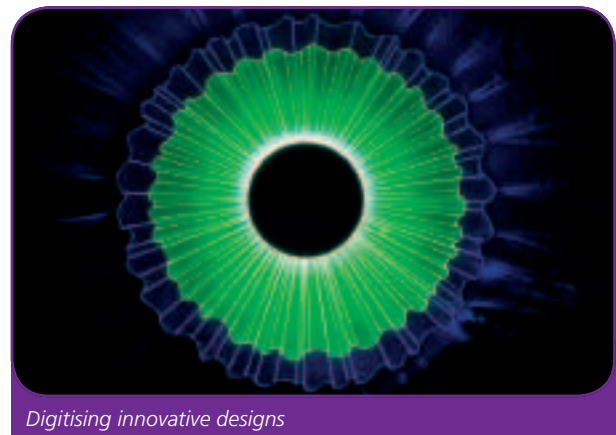
## Developing a new design process and new products for a luxury textile manufacturer

  
Institutes of Technology Ireland

Jem Textiles was set up in 1997 and is owned and managed by Ms. Jacinta Edge-Moody. She designs and creates luxurious fabrics for interior designers, architects and international fabric houses, using hand printing, appliqué and embroidery creating unique and aesthetic pieces. These fabrics are used in both the international contract and domestic markets.

With the changing market conditions, Jem Textiles was keen to explore innovative methods, using new technologies, to develop their product lines and bring them to the market place to expand the business. However, the company was unsure how technologies, traditionally used in other industry sectors, could be adapted to benefit their craft designs. Lacking the resources and access to specialised equipment or expertise to achieve this, Jem Textiles turned to DesignCORE at IT Carlow to help.

DesignCORE is an industry facing applied research centre that works across different sectors of the economy, including the craft industry. DesignCORE's philosophy and expertise in rapid prototyping and additive manufacturing technologies encourages the development and implementation of new product development methodologies within small to medium-sized enterprises. The Centre's facilities provide access to digital design technologies, introduce industrial design principles and encourage experimentation and engagement as process.



Jem Textiles and DesignCORE collaborated on a number of research design projects, putting in place an augmented approach that merged the industrial design and craft design methodologies. By building on traditional craft methods, modern materials were combined with digital techniques and incorporated the company's textile and interior knowledge to develop and produce innovative designs. By then deploying DesignCORE's rapid manufacturing techniques, fabric designs were translated to acrylic, opening up a potential new product range to take to market. →

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→ The collaborative research activities between DesignCORE and Jem Textiles were supported by Carlow County Enterprise Board (CCEB) through the Industrial Design Partnership Programme.

The collaboration resulted in a new approach to the design development process, combining craft and industrial design methodologies, through the development of an innovative lighting design using laser cut acrylics, which are side lit with LEDs. The partnership also produced a new product range combining 3D printing with fibre optics, expanding Jem Textiles product portfolio and increasing their exposure in the market place, both in Ireland and abroad. The new designs

developed were chosen by Pantone as part of their Radiance Mood Board for 2013 Trends, while another design was featured in the Spring issue of What's Hot in Irish Interiors.

Following the collaboration, Jem Textiles has increased their product lines and exhibited two new lighting ranges at 100% Design, the UK's largest design trade event in London. The partnership has resulted in expanded business opportunities for their new designs, ensuring they have a stronger footing in the marketplace, improving the viability of the business going forward. ■

## TESTIMONIAL

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**Jacinta Edge-Moody**  
*Jem Textiles*

*"Before engaging with the Institute, my work involved predominately hand drawn designs which were transferred onto fabric by hand painting using old traditional skills. Production methods were slow and costly, making it difficult to make a living. In the previous year, I had been trying to combine my bespoke fabrics with fibre optics and LED lighting, wishing to expand my technical abilities, while creating a very unique product. Working with the Institute provided a fantastic opportunity to embrace digital design with manufacturing techniques. Their attributes of visualisation, ease to adapt ideas, great communication skills and their in-depth knowledge of digital design and process made the collaboration easy. This type of collaboration allows craftspeople and designers opportunities to develop their products making them affordable and available to a wider market. Engaging with the Institute was a very positive and enlightening experience and has been instrumental in changing the course of my business with the expansion of the business in new products I design and make."*

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