



**Topic of the Speech:**

The Role of Aesthetics in Scientific Research Today

**Professor Li Li**

Institute of Textiles and Clothing  
The Hong Kong Polytechnic University  
Hong Kong, China



**Professor Li Li** is a Professor in the Institute of Textiles & Clothing of The Hong Kong Polytechnic University. Her research interests include design thinking, functional textile design, and advanced manufacturing. She has strong collaboration with various local and international brands and textile companies.

She has successfully secured 64 projects worth a total amount of over HK\$ 84 million (around US\$ 10.8 million), published over 80 research articles in world-leading and top-tier textile journals, and held 24 patents. Her research outcome is highly recognized by both academia and industry, generating a great impact on fashion business. With her achievement, she has won 24 prestigious international awards, including the Golden Award of the 46th and 47th International Exhibition of Inventions of Geneva for two consecutive years.

## **The Role of Aesthetics in Scientific Research Today**

Li Li

*Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Hong Kong, China*

\*Presenter's email: [li.lilly@polyu.edu.hk](mailto:li.lilly@polyu.edu.hk)

### **ABSTRACT (NO MORE THAN 500 WORDS: )**

“Science” deals with the systematic and philosophical study of nature and its mechanisms, and “art” involves the expression of beauty and emotion. Until recent centuries, their relationship remained traditional. In spite of the discovery of the scientific element in art or the artistic image in science, the term combination continues to exist only in its external meaning and not in its integral meaning.

A review of contemporary creative industries and aesthetics illustrate not only the complexities of the art-technology-business balance, but also the direction of potential solutions that humanity and society may adopt. Having experienced the benefits and risks of a well-branded “creative industry” in everyday life, and from the perspective of the industry as a whole, the issue of how to access the artistic and cultural competencies that are found in the technology landscape persists. Even in parts of the world where art and technology are still seen as enemies, as well as culture and commerce as enemies, art and technology have made great strides toward improving people’s quality of life and achieving a higher standard of living. The alignment of “art and science” with “science and art” and the creation of value through multidisciplinary research. The creative economy has flourished as a result of this trend, which indicates that 21st century industries will increasingly rely on knowledge resulting from creativity and innovation.

In this talk, Prof. Li will describe her projects as examples of an “art to science” research approach and the role of “aesthetic” on “science”. Specifically, these themes revolve around understanding the customer experience, societal needs, and the past in order to anticipate the future. In this regard, aesthetic research methods (or design thinking research) give an opportunity to solve complex problems from a user-centered perspective, thus enabling development of new ideas and envision new possibilities. The discoveries, inventions and developments resulting from these studies have been embraced by many of the world's largest textile companies and incorporated into their products, resulting in an effective and tangible knowledge transfer and market application.