

# Medical Textiles and Tissue Engineering

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## Overview

Medical textiles play a significant role within the technical textile sector. The increased awareness of the need to enhance the quality of life of the people has contributed towards high consumption and sustained growth of medical textiles. Clear understanding is critically needed about the structure-property relationship of novel textile products, so that precise simulation of mechanical parameters for specific clinical applications can be achieved. Tissue engineering is the field that applies the principles of biology and engineering to the development of functional substitutes for damaged tissue. Development of efficient manufacturing processes for preparing novel polymeric biomaterials, fibrous scaffolds; detailed understanding of behaviour of human cells with respect to architectural and chemical signals offered by textile and/or polymer-based materials is the need of the hour. This course actually would target towards achieving this goal.

## Objectives

The primary objectives of the course are as follows:

1. Emphasize the role of medical textiles in enhancing the quality of life for people
2. Demonstrate the significance of textile products in healthcare and hygiene applications
3. Provide exposure to the participants regarding use of various medical devices through case studies and clinical trials
4. Awareness regarding tissue engineering, alongwith its scientific and social challenges.

<b>Course duration</b>	<b>20<sup>th</sup> to 30<sup>th</sup> July, 2016</b>
<b>Who can attend...</b>	Medical textiles and tissue engineering is an interdisciplinary research area, so the course would be beneficial for both the technologist and the biologist. It would help to gain knowledge relating to various aspects of the most dynamic research area in textiles for: <ul style="list-style-type: none"><li>• Textile &amp; Polymer Technologists</li><li>• Material Scientists</li><li>• Biotechnologist, Biochemists</li><li>• Students or faculty from academic institutions</li><li>• Industry/Research organization</li></ul>
<b>Fees</b>	The participation fee for taking the course would be: Academic institutions : <b>Rs. 3000</b> Students : <b>Rs. 2000</b> Industry : <b>Rs. 3500</b> Participants from abroad: <b>\$ 200</b> Fee includes the instructional materials, internet facility and snacks. The accommodation will be provided on payment basis.

## The Faculty



**Professor Rajendran S** is a distinguished scientist in Biomedical Textile Materials. He is currently working as Professor of Biomedical Materials at the University of Bolton, Bolton, UK. He has 34 years of research & teaching experience in various areas of textiles and has successfully led a number of research programmes in the past funded by companies and government funding agencies as evidenced by the fact that he has so far authored 167 research papers that include 4 books, 16 monographs, 16 book chapters & 9 patents. His books on 'Development in Medical Textiles' & 'Advanced Textiles for Wound Care' received great attention among readers. In addition to academic activities, Professor Rajendran is actively involved in Textile Institute's affairs for many years. He is currently Chairman of Professional Qualifications Award Committee & a member of the Board & the Governing Council of the Textile Institute, Manchester. He is the recipient of a prestigious Research Fellowship award from the United Nations Industrial Development Organisation (UNIDO).



**Prof V K Kothari** is Professor Emeritus in the department of Textile Technology, Indian Institute of Technology Delhi. He has published more than 150 research papers in international journals/book and is renowned for his work in technical textiles. He is heading several sponsored projects and committees formed by the Ministry of Textiles.



**Dr Vinay Midha** is Associate Professor in the Department of Textile Technology at Dr B R Ambedkar National Institute of Technology, Jalandhar (India). He has contributed more than 50 research papers in International & National journals and Conferences and has written three chapters in books published by Woodhead Publications.



**Dr Monica Sikka** is Associate Professor in the Department of Textile Technology at Dr B R Ambedkar National Institute of Technology, Jalandhar (India). She has contributed more than 20 research papers in International & National journals and Conferences.

## Course Co-ordinators

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