



SCIENCE OF CLOTHING COMFORT

PROF. APURBA DAS

Department of Textile Technology
IIT Delhi

INTENDED AUDIENCE : UG and PG Students of Textile, Clothing and fashion technology, Material science etc.

PRE-REQUISITES : Basic courses on Textiles

COURSE OUTLINE :

Clothing comfort is one of the most important attributes of textile materials. A basic understanding of comfort aspects of textile materials would be extremely useful for fibre, yarn and fabric manufacturer, researcher, garment designer, processing industries, garment houses, users of the fabrics for speciality applications and all others related with textile and garment industries. The multidisciplinary nature of the subject, encompassing various concepts of physics, neurosciences, psychological science, material sciences, ergonomics, instrumentation and textile engg. would stimulate the minds for innovation, product design and development and material characterization with scientific approaches.

ABOUT INSTRUCTOR :

Prof. Apurba Das is Professor in the Department of Textile Technology, Indian Institute of Technology, Delhi. He has completed his Ph. D. from the same department in the year 1994. He has joined Indian Institute of Technology, Delhi in 2002 as a faculty after serving in the textile industries and in research organization for about 11 years. He has guided many Ph.D., M. Tech., B. Tech. students and presently guiding several Ph.D., M. Tech. and B. Tech. students. He has published more than 260 research papers in journals and conferences, authored and edited 05 books and written chapters in 18 books. He has successfully completed many research and consultancy projects from industries and government funding agencies. He has filed several patent applications. He has developed several instruments for characterization of textile materials. His main areas of teaching and research interest are clothing comfort, sports textiles, nonwovens and technical textiles, filter fabrics, geotextiles, medical bandage, textile composites, and instrumentation. He has international research collaborations with universities from different countries like, Germany, Poland, Hungary, Slovenia, Italy, Portugal, China, South Korea, Australia, UK, Hong Kong, Croatia etc.

COURSE PLAN :

- Week 01 :** Introduction to Clothing Comfort
- Week 02 :** Psychology and Comfort
- Week 03 :** Neurophysiological Processes in Clothing Comfort
- Week 04 :** Tactile Aspects of Clothing Comfort
- Week 05 :** Tactile Aspects of Clothing Comfort (contd)
- Week 06 :** Thermal Transmission
- Week 07 :** Thermal Transmission (contd)
- Week 08 :** Moisture Transmission
- Week 09 :** Moisture Transmission (contd)
- Week 10 :** Moisture Transmission (contd)
- Week 11 :** Dynamic Heat and Mass Transmission
- Week 12 :** Garment Fit and Comfort