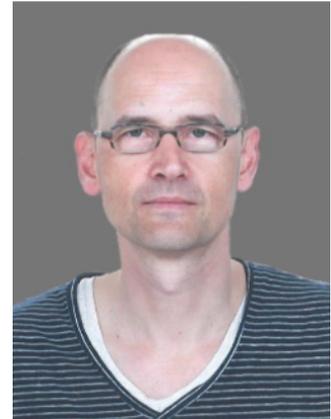**TBIS**

Topic of the Speech:
Applications and Measurements Methods of Radiant Heat Exchange of the Human Body - Opportunities and Limitations of Newly Engineered Fibers, Fabric and Finishes

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Professor Emiel DenHartog has a Masters' degree in Experimental Physics from the University of Utrecht in the Netherlands and PhD in Medical Physics from the Erasmus University, Rotterdam, The Netherlands. After his PhD he went to work for more than 15 years in the Defense research on evaluation and innovation of military protective clothing systems where he studied modeling human heat exchange in extreme environments. Over time he moved towards the impact of protective clothing on the human body.

Since 2013 he is Co-Director of the Textile Protection And Comfort Center (TPACC) and Associate Professor in the Textile Engineering, Chemistry and Science department in the Wilson College of Textiles at NC State University. In his research he focuses on the interaction between clothing and the human body to optimize protection, performance and comfort. Recently his worked has focused more on the local interaction of fabrics and materials with the skin and the effects of the local microclimate on skin health. Main focus of research is on using and developing test and evaluation methods for functional textiles to demonstrate and quantify protection, performance and comfort of clothing and related textile products that interact with the body. With this he actively collaborates with a wide range of scientists providing measurement and evaluation support on anything related to improvements on human health, performance and comfort.

He teaches classes on Clothing Physiology and Textile Testing and publishes on comfort and protection evaluations of textiles and clothing. Since 2015 he has been member of the National Academy of Sciences Institute Of Medicine (IOM) standing Committee on Personal Protective Equipment for Workplace Safety and Health (COPPE).