
The prediction approach is based on recurrent neural networks for fuzzy data trained by time-dependent results of measurements or numerical analyses. An efficient solution for network training and prediction is developed utilizing ?-cuts and fuzzy arithmetic. The approach is …May 04, 2011 · Numerical simulations corresponding to multi-layered composite forming allow the prediction for a successful process to produce the thick parts, and importantly, the positions of the fibres after forming to be known. This paper details a set of simulation examples carried out by using a semi-discrete shell finite element made up of unit woven g) Prediction of whiteness or yellowness of bleached textile in difference standard scales like CIE, Hunter Lab, ASTM-E-313, Stans by etc. h) Prediction of optical brightening agent's efficiency utilizing the CCM device with or without UV light. i) Quantitative prediction colour fading behaviour - instead of conventional grey scale application.Muhammad Awais, Sybille Krzywinski, Ellen Wendt, A novel modeling and simulation approach for the prediction of human thermophysiological comfort, Textile Research Journal, 10.1177/0040517520955227, (004051752095522), (2020).Mar 01, 2015 · Textile Research Journal Vol 85, Issue 5, pp. 548 - 557 Issue published date: March-01-2015Textile Research Journal, 7, 004051752094080. By: R. Yin. 10.1177/0040517520940807 Accurate prediction of the ring?spinning equation in zero air drag based on homotopy perturbation method 2011 journal article. Cite it Numerical simulation of quasi-stationary ring spinning process linear elastic yarn Textile Research Journal, 81(1), 22 He re-joined the Solid Mechanics group at Oxford as a Research Fellow, carrying out work on the development of plasticity around propagating cracks. Numerical prediction of the permeability of textile reinforcements: textile geometry
modelling, compaction simulation, and flow simulation Journal of the Textile Institute, 102 (8), 689-699 Multiscale analysis, damage prediction, ballistics testing, mechanical design Civil and military, structural and load-bearing applications This 578-page book is an original and important collection of over 65 never previously published investigations in the fast-growing materials science field of textile composites.Long, and A. Endruweit, Numerical Prediction of Permeability of Textiles for the International Benchmark Exercise , in FPCM 11. 2012: Auckland, New Zealand. 10.Oct 30, 2018 · Ruijter, Wout (2009) Analysis of mechanical properties of woven textile composites as a function of textile geometry. PhD thesis, University of Nottingham. Sherburn, M., A. Long, A. Jones, J. Crookston, and L. Brown, Prediction of textile geometry using an energy minimization approach. Journal of Industrial Textiles, 2012. 41(4): p. 345-369.Dec 12, 2017 · The numerical prediction is based on several steps. First, the 3D geometry of the loop is generated based on a geometrical model for the loops. This geometry is then used, together with the properties of the yarns (wires) and the matrix for homogenisation calculations. Textile Research Journal, 55(8), 489–498. CrossRef Google Scholar. 11 About. The Journal of The Textile Institute welcomes papers concerning research and innovation, reflecting the professional interests of the Textile Institute in science, engineering, economics, management and design related to the textile industry and the use of …Mar 24, 2021 · Textile Research Journal 0 10.1177/00405175211003986 Download Citation. Prediction and optimization of process parameters of electrospun polycrylonitrile based on numerical simulation and response surface method Show all authors. Peng Chen 1.Luximon, and A. Khandual, “Prediction of drape profile of cotton woven fabrics using artificial neural network and multiple regression method”, Textile Research Journal 81 (2011): 559-566. [19] Hedfi, H., Ghith, A., and BelHadjSalah, H., “Dynamic fabricDue to advancements made in 3D weaving process [1] and, in order to develop 3D textile structure as reinforcement of composite material for aeronautic application, a good prediction of the geometry and the mechanical properties of the 3D woven unit cell is required. Due to the complexity of these textile architectures, realistic geometric representations [2] of fabrics are often difficult to Online Library Textile Research Journal Numerical Prediction And designed with the mechanics of the body in mind. This enables products to be developed that are specifically designed for the mechanics of their end purpose (e.g. sports bra) as well as the everyday movement of the body. This is …numerical considerations given by scanned images Textile Research Journal, 68 1, 57-64. [17] A new method for the prediction of drape parameters Influence of fabric parameter on drape A novel method to predict accurately the formation of fibrous webs in the melt-blowing process is developed. When an image analysis technique is combined with the Fluent software, the fiber spatial position and consequent landing position on the moving collection screen are predicted. The results include the prediction of fiber deposition patterns in the resulting fibrous web.May 17, 2012 · 19 August 2016 | Textile Research Journal, Vol. 86, No. 19. Comparing the effect of three transition models on the CFD predictions of a NACA0012 airfoil aerodynamics. Journal of Wind Engineering and Industrial Aerodynamics, Vol. 157. Numerical prediction of flow separation for advanced nozzle concepts.The prediction of the mechanical properties of textiles has been item of several researchers by different approaches. In particular the investigations can be grouped in three main methodologies: experimental (see e.g. ), analytical (see e.g. ) and numerical (see e.g. ). This paper presents a numerical approach based on two scale modelling.The goal of this investigation is to demonstrate, by means of numerical simulation, that the Coanda effect can be used to affect the trajectory of fine fibers created by the melt-blown process. The Coanda effect serves to modulate the direction of fluid motion, and, in turn, the change in the pattern of fluid flow alters the fiber trajectories. Primary focus is accorded to the use of plane An optimized design of compression sportswear fabric using numerical simulation and the response surface method. Research output: Journal article publication › Journal article ›
reviewed journal papers cited over 7,533 times, with h-index of 45, according to Google Scholar …Osman, Akil, Simon De Meulemeester, Benny Malengier, Joris Degroote, and Jan Vierendeels. 2017. “Numerical Prediction and Experimental Analysis of Ends-Together Yarn Splicing.” TEXTILE RESEARCH JOURNAL 87 (12): 1457–1468. A dynamic model predicting human thermal responses in cold, cool, neutral, warm, and hot environments is presented in a two-part study. This, the first paper, is concerned with aspects of the passive system: 1) modeling the human body, 2) modeling heat-transport mechanisms within the body and at its periphery, and 3) the numerical procedure. A paper in preparation will describe the active system (2011) Pei, Yu. Textile Research Journal. In this study, two methods, the numerical simulation and the artificial neural network, are adopted to predict the vortex yarn tenacity from some process and nozzle parameters. The fiber-airflow interaction and the motional characteristics of the fiber in

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