

The Influence Of Knitted Fabrics Structure On The Thermal

This study conducts a series of experiments on the resistivity of conductive knitted fabric with different knitwear structures. Based on a previous study that modeled the resistance of plain jersey fabric with different numbers of wales and courses, planar geometric models are established for 1 x n float and Single Pique structures. Resistive network models are developed for different external voltages to determine the resistance values of conductive knitted fabrics with different numbers of wales and courses. Corresponding experiments are carried out to verify the proposed models. The simulated results obtained through modeling agree well with the experimental data with an acceptable range of error. Finally, a comparison of jersey (knit), float and tuck stitches is carried out with the relative wales and courses. It is concluded that both float and tuck stitches could reduce the total resistance of conductive knitted fabrics, and between them, tuck structures can provide lower resistance as well as a more aesthetically pleasing appearance. On the other hand, float structures are more economical, as conductive yarn is expensive so its cost is reduced with use of float stitch as the loop length is much shorter than that of the tuck stitches. Three thermal knitwear garments are developed in the experiments to test the thermal performance to determine the optimal design from the different knitted structures. It is concluded that the thermal properties are influenced by the different knitted structures and Single Pique has the most optimal performance in terms of the heating effect among the three types of selected structures. The newly developed resistance models in this study will provide significant benefits to the commercialization of wearable electronic textiles, as well as to the apparel industry as they can now offer apparel products that are not only aesthetically pleasing and multi-functional, but also have high added value.

The Impact and Prospects of Green Chemistry for Textile Technology provides a review and summary of the role of green chemistry in textiles, including the use of green agents and sustainable technologies in different textile applications. The book systematically covers the history and chemistry of eco-friendly colorants, chitin, chitosan, cyclodextrin, biomordants, antimicrobial, UV protective, flame retardant, insect repellent textiles, and advanced pre- and post- treatment technologies, such as the sonochemistry and plasma methods currently employed in functional modifications. The book also pays attention to the remediation of textile effluents using novel, sustainable and inexpensive adsorbents. Written by high profile contributors with many years of experience in textile technology, the book gives engineers and materials scientists in the textile industry the information they need to effectively deploy these green technologies and processes. Introduces green chemistry and sustainable technologies, and explores their role in different textile applications Examines the use of renewable materials, such as biopolymers, dyes and pigments, biomordants, polyphenols and plant extracts in functional finishing applications Deals the functional modification of textiles using state-of-the-art biotechnology and nanotechnology

This book presents the proceedings of CIRATM-9. The papers present the latest scientific concepts and technological developments in textile and materials of worldwide researchers and practitioners. The conference promotes sharing ideas and emerging technologies and fosters research and development collaborations amongst academia, research institutions and relevant industries. CIRATM is the first international conference applied on textiles in Tunisia and all Maghreb. It is a regular conference organized every two year since 2004. It focuses on all textile and materials fields. It joints together all actors of textile field and share research with many international collaborators. This edition is organized with the collaboration of 4 Tunisian partners and 6 international associates and institutions · Laboratory of Textile Engineering (LGTex, Tunisia), · Monastir university (Tunisia) · Tunisian Association of Textile Researchers (ATCTex, Tunisia) · Le pôle de compétitivité Monastir-El Fejja (mfcpole, Tunisia) · Association of the universities for textiles (AUTEX, International) · Balkan Society of textile engineering (BASTE) · National research & development institute for textile and leather (INCDTP, Bucharest- Romania) · Yazid University (Iran) · Centre d'Essais Textile (Cetelor, Lorraine - France) · Center of Textile Science and Technology (2C2T – University of Minho, Portugal)

Knitted textiles and apparel represent approximately one third of the global textile market. This book provides an updated reference to Knitting technology, with specific focus on the developments in knitted

fabric production and textile applications. The first set of chapters begin with a brief review of the fundamental principles of knitting, including the types and suitability of yarns for knitting as well as the properties achieved through knitted fabrics. The second part of the book examines the major advances in knitting, such as intelligent yarn delivery systems in weft knitting, knitted fabric composites and advances in circular knitting. The concluding section of the book presents a selection of case studies where advanced knitted products are used. Topics range from knitted structures for moisture management to weft knitted structures for sound absorption. With its distinguished editor and array of international contributors, Advances in knitting technology is an important text for designers, engineers and technicians involved in the manufacture and use of knitted textiles and garments. It will also be relevant for academics and students. Provides both a timely and authoritative reference on developments in knitted fabric production Examines different types and suitability of yarns for knitting including the modelling of knitting Advances in knitting are explored in a number of different areas such as intelligent yarn delivery systems and current problems and limitations in weft knitted structures for industrial applications

From Nano- to Macro-Scale

Thermal Comforts Properties of Knitted Fabrics Produced from Bamboo blended yarns

Revolutionary Materials

Fundamentals and Advances in Knitting Technology

Competitiveness through innovation

Structure and Mechanics of Textile Fibre Assemblies

INTRODUCTION This chapter is concerned with the general introduction, importance of thermal comfort and need for research on it. The objectives of the study and organization of the thesis are discussed. Importance of Blending Natural fibres and their blends with classic fibres bear valuable properties and so at present there are various products made of these fibres. It is observed that in respect of properties like the absorption and discharge of moisture, non-irritating, antibacterial, and anti-allergic characteristics, protection against the sun ' s harmful ultra-violet rays and other valuable properties, blended yarns are better than classical yarns. Hence, they may be used for clothing, underwear, socks, and hygienic textile products as well as for composites. In the cotton spinning process, blending has the objective of producing yarn with acceptable quality and reasonable cost. A good quality blend requires the use of adequate machines, objective techniques to select bales and knowledge of its characteristics. Knowledge of the importance of blended products in the textile industry and the generally rising costs of production make the achievement of economic and good quality blends with different kinds of cotton more and more critical (Azzouz et al 2008).

It is impossible to have good designs without having accurate quality construction skills.

Professional Sewing Techniques for Designers is an up-to-date sewing guide that teaches fashion design students the skills they will need to execute their original designs in a professional environment. Each chapter covers a particular theme, such as collars, and reflects the order of assembly of any garment. More than 1,000 detailed and annotated sketches provide visual support to the techniques covered. New to this Edition: New Chapter 5 Stitching Knits: Working with Stretch New Chapter 7 Fitting: Developing an "Eye" for Good Fit Chapter order has been reorganized to reflect the stitching order of garments

This volume contains select papers presented during the Functional Textiles and Clothing Conference 2018. The book covers the recent scientific developments, cutting edge technologies, innovations, trends, challenges and opportunities in the field of functional and smart textiles and clothing. The contents of this volume will be of interest to researchers, professional engineers, entrepreneurs, and market stakeholders interested in functional textiles and clothing.

The use of polymer composites in various engineering applications has become state of the art. This multi-author volume provides a useful summary of updated knowledge on polymer

composites in general, practically integrating experimental studies, theoretical analyses and computational modeling at different scales, i. e. , from nano- to macroscale. Detailed consideration is given to four major areas: structure and properties of polymer nanocomposites, characterization and modeling, processing and application of macrocomposites, and mechanical performance of macrocomposites. The idea to organize this volume arose from a very impressive workshop - The First International Workshop on Polymers and Composites at IVW Kaiserslautern: Invited Humboldt-Fellows and Distinguished Scientists, which was held on May 22-24,2003 at the University of Kaiserslautern, Germany. The contributing authors were invited to incorporate updated knowledge and developments into their individual chapters within a year after the workshop, which finally led to these excellent contributions. The success of this workshop was mainly sponsored by the German Alexander von Humboldt Foundation through a Sofia Kovalevskaja Award Program, financed by the Federal Ministry for Education and Research within the "Investment in the Future Program" of the German Government. In 2001, the Humboldt Foundation launched this new award program in order to offer outstanding young researchers throughout the world an opportunity to establish their own work-groups and to develop innovative research concepts virtually in Germany. One of the editors, Z.

Composite Sheet Forming

Textiles for Advanced Applications

Study the Influence of Yarn Count on Single Jersey Weft Knitted Fabric

America's Textile Reporter

Understanding and Improving the Durability of Textiles

Textiles for Sportswear

Structure and Mechanics of Textile Fibre Assemblies, Second Edition, offers detailed information on all aspects of textile structure and mechanics. This new edition is updated to include the latest technology and techniques, as well as fiber assembly for major application areas. Chapters discuss the mechanics of materials and key mechanical concepts, such as stress, strain, bending and shear, but also examine structure and mechanics in-depth, including fabric type, covering yarns, woven fabrics, knitted fabrics, nonwovens, tufted fabrics, textile composites, laminated and coated textile fabrics, and braided structures. Finally, structure and mechanics are approached from the viewpoint of key applications areas. This book will be an essential source of information for scientists, technologists, engineers, designers, manufacturers and R&D managers in the textile industry, as well as academics and researchers in textiles and fiber science. Provides methodical coverage of all essential fabric types, including yarns, woven fabrics, knitted fabrics, nonwovens, tufted fabrics, textile composites, laminated and coated textile fabrics, and braided structures Enables the reader to understand the mechanical properties and structural parameters of fabric at a highly detailed level Expanded update includes an analysis of fiber assemblies for key technical areas, such as protective fabrics and medical textiles

This book presents a global view of the development and applications of technical textiles with the description of materials, structures, properties, characterizations, functions and relevant production technologies, case studies, challenges, and opportunities. Technical textile is a transformative

research area, dealing with the creation and studies of new generations of textiles that hoist many new scientific and technological challenges that have never been encountered before. The book emphasizes more on the principles of textile science and technology to provide solutions to several engineering problems. All chapter topics are exclusive and selectively chosen and designed, and they are extensively explored by different authors having specific knowledge in each area.

Auxetic Textiles provides a detailed introduction to the basic properties of auxetic materials and how they differ from conventional materials, particularly auxetic textiles, such as polymers, fibers, yarns, fabrics and textile composites. The book discusses the beneficial properties of auxetic structures in textiles and how to translate those benefits into actual materials development. Sections cover the deformation mechanism of textile structures to achieve auxetic behavior and the modelling and simulation of auxetic textile structures. Finally, the book provides expert insights into potential application areas. Cutting across textiles disciplines, from technical textiles and advanced composites, to fashion and design, the book is a valuable introduction to the field for newcomers, with potent insights into the potential of these materials. Introduces the concept of auxetic materials and their differences from conventional materials Provides a practical guide to the mechanics of achieving auxetic properties in textile materials, including polymers, fibers, yarns, fabrics and composites Reviews and links up research and development in auxetic materials with the textile industry, helping enable the development of a range of new applications From 1918- each issue includes Abstracts (literature and patents.).

Proceedings of the 8th International Ergonomics Conference

The Influence of Machine Settings in Interlock Knitting

Vibration Problems ICOVP 2011

Knitting

ECCM-8

Proceedings of the 9th International Conference of Applied Research on Textile and Materials (CIRATM)

KNITTED FABRICS, INTERLOCK KNITTING, FABRIC PROPERTIES, YARN PROPERTIES, MACHINE SETTINGS.

Textile manufacturing is an important subject in textile programs and processing industries. The introduction of manmade and synthetic fibers, such as polyester, nylon, acrylic, cellulose, and Kevlar, among others, has greatly expanded the variety of textile products available today. In addition, new fiber development has brought about new machines for producing yarns, fabrics, and garments. Textile Manufacturing Processes is a collection of academic and research work in the field of textile manufacturing. Written by experts, chapters cover topics such as yarn manufacturing, fabric manufacturing, and garment and technical textiles. This book is useful for students, industry workers, and anyone interested in learning the fundamentals of textile manufacturing.

Sheet forming is the most common process used in metal forming and is

therefore constantly being adapted or modified to suit the needs of forming composite sheets. Due to the increasing availability of various types of fibre reinforced polymeric sheets, especially with thermoplastic matrices, the scope of use of such materials is rapidly expanding in the automobile, building, sports and other manufacturing industries beyond the traditional areas of aerospace and aircraft applications. This book contains twelve chapters and attempts to cover different aspects of sheet forming including both thermoplastic and thermosetting materials. In view of the expanded role of fibre reinforced composite sheets in the industry, the book also describes some non-traditional applications, processes and analytical techniques involving such materials. The first chapter is a brief introduction to the principles of sheet metal forming. The next two chapters introduce the various forms of materials, manufacturing techniques and the fundamentals of computer simulation. Chapter 4 describes the different aspects of thermoforming of continuous fibre reinforced thermoplastics and the following chapter studies the shear and frictional behaviour of composite sheets during forming. Chapter 6 explores the possibility of applying the grid strain analysis method in continuous fibre reinforced polymeric sheets. The next two chapters address fundamental concepts and recent developments in finite element modelling and rheology. Chapter 9 introduces the theory of bending of thermoplastic composite sheets and shows a novel way of determining both longitudinal and transverse viscosities through vee-bend tests. A significant expansion in the usage of composite materials is taking place in biomedical areas. Chapter 10 discusses the thermoforming of knitted fabric reinforced thermoplastics for load bearing and anisotropic bio-implants. The final chapter introduces roll forming, a commonly used rapid manufacturing process for sheet metals, and discusses the possibility of applying it economically for continuous reinforced thermoplastic sheets.

This volume presents the Proceedings of the 10th International Conference on Vibration Problems, 2011, Prague, Czech Republic. ICOVP 2011 brings together again scientists from different backgrounds who are actively working on vibration-related problems of engineering both in theoretical and applied fields, thus facilitating a lively exchange of ideas, methods and results between the many different research areas. The aim is that reciprocal intellectual fertilization will take place and ensure a broad interdisciplinary research field. The topics, indeed, cover a wide variety of vibration-related subjects, from wave problems in solid mechanics to vibration problems related to biomechanics. The first ICOVP conference was held in 1990 at A.C. College, Jalpaiguri, India, under the co-chairmanship of Professor M.M. Banerjee and Professor P. Biswas. Since then it has been held every 2 years at various venues across the World.

Engineering of High-Performance Textiles

European Conference on Composite Materials ; Science, Technologies and Applications ; 3-6 June, 1998, Naples - Italy

An Examination of the Possible Influence of Yarn Friction on Knitted Fabric Pilling Resistance

Journal of the Textile Institute

Influence of Structural Changes in Yarn Moisture Management Behaviour of Knitted Fabric

Auxetic Textiles

The technical developments in the sports clothing industry has resulted in the use of functional textiles for highly-specialised performances in different sports. Developments include thermal and functional properties and coated and laminated clothes. With bio- and smart materials providing such a strong focus in the textile industry generally, companies are going for 'value-added' textiles, such as in-built sensors which monitor performance. In-built wear comfort is a growing market trend and includes clothing which improves the skin's performance. Written by a distinguished editor and a team of authors from the cutting edge of textile research, Textiles in sport discusses high-performance, high-function and intelligent textiles for sportswear. Invaluable for a broad range of readers Discusses high-performance, high-function and intelligent textiles for sportswear Materials and Technology for Sportswear and Performance Apparel takes a close look at the design and development of functional apparel designed for high-performance sportswear. Implementing materials, performance, technology, and design and marketing, the book examines this rapidly emerging textile market and outlines future directions and growing trends. The book begins by explaining how a comfort-driven focus has led the industry to embrace knitted fabric as a popular choice of constructional material. Using examples of leading brands, it outlines the basic terminology, structural details, and essential properties appropriate for performance apparel, especially for sportswear. This book describes the differences between woven and knitted structures, provides an understanding of fabric behavior and the characteristics of a functional garment, and outlines the importance of garment fit and consumer perception of garment comfort in its design and development. The authors present key research outcomes on the design and development of functional apparel designed for high-performance sportswear that explore smart materials, impact-resistant fabrics and pressure sensing. They consider the use of 3-D body scanning and its influence on pattern engineering for apparel product development; highlight the widely used fiber types for sportswear and the importance of fiber blends and their performance, and discuss the relevance of fabric structure and its interaction with the human body. The book also presents research on moisture management and temperature regulation and analyzes the performance and development of smart sportswear intended for monitoring health and performance for a range of end uses. A definitive guide detailing the future of functional clothing and sportswear, this book: Describes how to design and develop functional clothing for sportswear Reflects current

research outcomes and industry requirements Clarifies with visual illustration, practical examples, and case studies an understanding of techniques and concepts Explores specifics of garment design such as fit, shape, function, fashion and design Focuses on a commitment to designing ethical and sustainable products

Textile reinforced concrete (TRC) has emerged in recent years as an attractive new high performance cement-based composite. Textiles can significantly improve the mechanical behavior of cement matrices under static and dynamic conditions, and give superior tensile strength, toughness, ductility, energy absorption and protection against environmental degrading influences. Flexibility with fabric production methods enables the control of fabric and yarn geometry. This, along with the ability to incorporate into the fabric a range of yarns of different types and performances, as well as cement matrix modifications, enables design of the composite to a wide range of needs. The book is intended to provide a comprehensive treatment of TRC, covering the basic fundamentals of the composite material itself and the principles governing its performance on a macro-scale as a component in a structure. It provides in-depth treatment of the fabric, methods for production of the composite, the micro-mechanics with special attention to the role of bonding and microstructure, behavior under static and dynamic loading, sustainability, design, and the applications of TRC composites.

The concept of this study is to examine the effects of in-lay length in warp knitted Raschel fabrics, their dimensional characteristics, physical and structural properties and the influence of stitch length is also examined. A selection of fabrics were knitted from acrylic and polyester yarns on a Karl Mayer RM 6 F Raschel Machine. These were subjected to two cycles of washing and tumble dry relaxation treatments. At the end of each treatment, the fabric samples were measured and the K values calculated to investigate the effects of knitting condition on the dimensional and structural properties of the fabrics were assessed. The investigation showed that the in-lay length effects some physical properties, e.g. Crease Recovery, but its effects on the others e.g. Abrasion is less clear. The investigation attempts to show that in-lay will effect the properties of the fabric under certain conditions, i.e. time length and angle of the in-lay when inserted. This investigation has by necessity being restricted to these aspects and further work should be undertaken, e.g. direction of in-lay, before a fuller understanding can be gained.

*Advances in Applied Research on Textile and Materials - IX
European Textile Research: Competitiveness Through Innovation
Professional Sewing Techniques for Designers
Textile Reinforced Concrete
Technology and Economics*

The Influence of Cover Factor and Structure on the Abrasion Resistance of Knitted Fabrics

Textiles for Sportswear is an important book that systematically covers key trends in design and materials, the use of novel and smart fabrics, and a range of specific applications. The book begins by surveying the principles of textile applications in sport, including design, materials, and production technology. The uses of smart textiles in sportswear are then examined, from intelligent materials to wearable technology. Final sections of the text explore comfort in sportswear, sportswear for protection, and recent advances in sportswear technology that are currently being applied to particular sports. Reviews the principles of textile applications in sport, including design, materials and production technology Examines the uses of smart textiles in sportswear Discusses how recent advances in sportswear technology are being applied to particular sports

MACHINE SETTINGS, KNITTED FABRICS, KNITTING, FABRIC PROPERTIES, FABRIC STRUCTURE.

Knitting is one of the most versatile and exciting of textile structures, and this book rediscovers its potential by exploring new ideas for design through the power of the stitch. Written for the dedicated knitter, it goes into the fine detail of how knitting works, questioning and examining how stitches can influence and shape the fabric by pulling in, pulling up, and making it stretchy or firm, thick or thin. Over forty projects are included that range from simple, straightforward scarves and bags to more intricate jackets and organic sculptural 3D pieces. Detailed, innovative and inspiring, it is invaluable reading for all knitters and textile designers. A dictionary of stitches compares each stitch with stocking stitch, and shows how the shape and feel of knitting can be changed dramatically, and a chapter explores different ways of shaping fabric around the edges and even within the knitting, using increases, decreases and short-row shaping to texture the surface or to make three-dimensional forms. Step-by-step instructions are supported with explanations, charts, diagrams and photos, and techniques are discussed in depth to help understand different outcomes and how 'problems' can be used creatively. A detailed and inspiring new book on knitting that pushes ideas and boundaries to encourage creative thinking and confidence in experimenting, with charts, diagrams and illustrations - 362 colour photographs in total.

The ECCM conferences attract world-wide participation and are now recognised as the premier European forum for discussion in all aspects of composites research and development. The eighth conference is to be held in Naples in June 1998. The book is structured on 8 different symposia dealing with all major scientific and industrial aspects of the science, technologies and application of composite materials.

A Thesis Submitted in Fulfilment of Requirements for the Award of the Degree of Doctor of Philosophy in Textile Technology : (Registration/Roll No. 11410003)

The Effects of In-lay on Raschel Knitted Fabrics

Functional Textiles and Clothing

ERGONOMICS 2020

For the Combined Textile Industries

Bulletin de la Société chimique Beograd

The book looks at the history of knitting and how the process has evolved to the latest developments. The chapters discuss the principles involved in all types of knitting machines and the different types of loops and knitted structures. The science and technical aspects of knitting, calculations related to knitting, and the mechanics of knitting

examined.

Engineering of High-Performance Textiles discusses the fiber-to-fabric engineering of various textile products. Each chapter focuses on practical guidelines and approaches for common issues in textile research and development. The book discusses high-performance fibers and yarns before presenting the engineering fabrics and architectures needed for particular properties required of high-performance textiles. Properties covered include moisture absorption, pilling resistant knitwear, fire retardant fabrics, camouflage fabrics, insect repellent fabrics, filtration, and many more. Coordinated by two highly distinguished editors, this book is a practical resource for all those engaged in textile research, development and production, for both traditional and new-generation textile products, and for academics involved in research into textile science and technology. Offers a range of perspectives on high-performance textiles from an international team of authors with diverse expertise in academic research, textile development and manufacture Provides systematic and comprehensive coverage of the topic from fabric construction, through product development, to the range of commercial potential applications that exploit high-performance textile technology Led by two high-profile editors with many years' experience in engineering high-performance textiles Advanced Knitting Technology provides complete coverage of the latest innovations and developments in knitting technology, including emerging methods as well as the best practice for classical processes. Many technologies can be used for the production of cloth such as weaving, knitting, nonwoven, and braiding. Knitting methods are selected for a growing range of applications due to the spectacular properties of knitted fabric, such as softer tactile quality, higher stretchability, bulkiness, and functional properties that compare favorably with other woven fabrics. Beyond the well-known apparel applications, specially designed knitted structures are uniquely suitable for high-performance applications like reinforcement for composites, medical implants, and geotextiles. This book presents recent advances in knitting technology, including new structures, properties and applications of knitted fabrics in modern apparel, automotive, composites, medical textiles, and geotextiles. With reference to the latest industrial practice, testing, quality and process control methods for knitting technologies are discussed. Advanced Knitting Technology covers recent advances in knitting technology, properties and performance of knitted structures, their applications in apparel and technical fields. Provides detailed and practical instructions for the sustainable production of knitted textiles, including sustainable chemical processing natural fibers, processes, and sustainability analysis methods Draws on the latest research to explore the future of knitted apparels and high-tech applications of knitted structures and textiles Explores the latest applications of AI and machine learning to the knitting process

The ability of a fabric to resist wear is an essential aspect of its performance. Understanding and improving the durability of textiles provides a comprehensive overview to the factors affecting the durability of a range of different textiles. Part one explores the different factors that affect textile durability, including the influence of fabric construction and fibre type, as well as properties affecting strength and dimensions.

stability. Colour fastness and the effects of light are discussed, along with methods for testing and improving wrinkle-resistance and textile durability. Part two goes on to explore the durability of particular types of textile including antimicrobial textile, protective clothing, historic textiles, silk and geotextiles. With its distinguished international team of expert contributors, *Understanding and improving the durability of textiles* is an indispensable book for textile scientists, technologists, engineers and designers designing, testing and manufacturing textiles. It also provides a comprehensive guide to textile durability for researchers and academics of all levels in this sector. Provides a comprehensive guide to the factors affecting the durability of a range of different textiles. Discusses colour fastness and the effects of light, and methods for testing and improving wrinkle-resistance and textile durability Explores the durability of particular types of textile

The Influence of Machine Settings on Double Jersey Fabric Production
Advanced Knitting Technology

Polymer Composites

Proceedings of the International Colloquium in Textile Engineering, Fashion, Apparel and Design 2014 (ICTEFAD 2014)

The Physical Properties that Influence the Drape of Knitted Fabrics
Materials and Technology for Sportswear and Performance Apparel

This book presents the proceedings of the 8th International Ergonomics Conference (ERGONOMICS), held in Zagreb, Croatia on December 2-5, 2020. By highlighting the latest theories and models, as well as cutting-edge technologies and applications, and by combining findings from a range of disciplines including engineering, design, robotics, healthcare, management, computer science, human biology and behavioral science, it provides researchers and practitioners alike with a comprehensive, timely guide on human factors and ergonomics. It also offers an excellent source of innovative ideas to stimulate future discussions and developments aimed at applying knowledge and techniques to optimize system performance, while at the same time promoting the health, safety and wellbeing of individuals. The proceedings include papers from researchers and practitioners, scientists and physicians, institutional leaders, managers and policy makers that contribute to constructing the Human Factors and Ergonomics approach across a variety of methodologies, domains and productive sectors.

The book is a collection of academic papers from a conference that focuses on significant issues, fundamental and applied research advances on a range of topics in the areas of textile engineering, apparel, fashion and design. Among others, the book will update the readers on recent research in technical and functional textiles; future trends and visions for textile, apparel and fashion; global business, marketing and management in textile and apparel; education and training in textile and apparel and design, fashion, footwear product and materials innovation.

J. HONEYMAN The second textile and clothing research and development programme (1982-1985) supported by the EEC was undertaken with the prime objective of strengthening the competitiveness of the Community textile industries by stimulating innovation. From the generation of the research ideas through to the application of new technologies, the optimum conditions for scientific research demand highly trained and qualified people working in well-equipped laboratories. The Commission, in collaboration with the textile industries working through Comitextil, participated in the selection of suitable topics and supported the

implementation of the programme and the publication and dissemination of the results. In all, 24 institutes in seven member countries carried out the programme which was divided into 35 separate but co-ordinated contracts. The costs were shared equally between the Commission and the participating institutes. The results were presented by selected specialists at the closing symposium held in Luxembourg on the 18 and 19 September 1985. The technical sessions covered the four topics : garment physiology and construction, quality of knitted fabrics and articles, application of new spinning technologies in the wool industry, and the upgrading of linen. In addition, prominent industrialists and Commission officials presented papers concerned with the present situation and the prospects for textile manufacture in the Community. Possible future research topics were outlined and the need was stressed for an increase in the amount of research and development to be carried out.

Stitch-led Design

Report 36: Textile Reinforced Concrete - State-of-the-Art Report of RILEM TC 201-TRC

A Study of the Influence of Different Structures on Resistivity of Conductive Knitted Fabrics

The Impact and Prospects of Green Chemistry for Textile Technology

Advances in Knitting Technology

Textiles in Sport