Record Nr. UNINA9910298594203321 Narrow and Smart Textiles [[electronic resource] /] / edited by Yordan **Titolo** Kyosev, Boris Mahltig, Anne Schwarz-Pfeiffer Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-69050-7 Edizione [1st ed. 2018.] 1 online resource (IX, 277 p. 200 illus., 185 illus. in color.) Descrizione fisica 677 Disciplina Soggetti Textile industry Materials science Industrial engineering Production engineering **Textile Engineering** Characterization and Evaluation of Materials Industrial and Production Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Conductive materials -- Smart textile applications -- Modern needle weaving machines -- Modern shuttle weaving machines for special fabrics -- New developments in the braiding machines -- Automatic carrier change on braiding machines -- Integration of sensors in braids -- Innovative braid-weaving process -- Problems of the rope connectors -- Simulation of braiding for medical applications --Modern CAD for braiding -- UHWPE tapes as replacement of metal chains -- Prediction of mechanical properties of belts -- Finishing of belts. Sommario/riassunto The book presents the latest developments in narrow fabrics and smart materials from research institutions, machinery building companies and producers of such products, presented during the International Week of Narrow and Smart Textiles in Spring 2018 in Mönchengladbach, Germany. It also demonstrates different applications of braided and woven fabrics. Braided and woven narrow products are produced using

completely different techniques, but have a lot of similarities in their

applications – they are used as belts, ropes and tubes in areas ranging from medical textiles, cables, technical and home applications to large-scale transport belts and long tubes for transporting oil from the bottom of the ocean.