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Intelligent systems/applications of mechatronics opportunities in textiles

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Mechatronics, as a discipline, has been around for a long time in textiles industries, applications such as “Jacquard, Printing, Embroidery, Knitting, Lace & Passementerie Stripes” of mechatronics opportunities in textiles the combination of mechanical applications with electronic textile's production used by researchers was a good example of integrated design. Indeed, most early workers in that branch of textiles industries which was to become electrical engineering were equally at factories with electronic and mechanical artifacts and combined them in various experiments and products. Mechatronic Design in Textile Engineering contains a selection of contributions to the advanced search which took place in the introductory sections on the mechatronics concept and design methodology and the impact of advances in technology on the mechatronics concept; the importance of the mechatronic design in the textile industries is highlighted, together with many examples as Jacquard, Printing, Embroidery, Knitting, Lace & Passementerie Stripes. These include mechatronics in the design of textile machinery, such as 3D printing and braiding; weaving and intelligent systems/applications of mechatronics for weaving; yarn spinning compensation; texturing; spinning; measurement automation and diagnosis, knowledge-based expert systems; automated textiles manufacture and assembly; and apparel manufacture. This paper is unique in that it brings together many applications of mechatronics in textile machinery and system design. In that respect, it will serve as a reference article for inventors and designers as well as for students of textile technology and engineering.

Biography

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