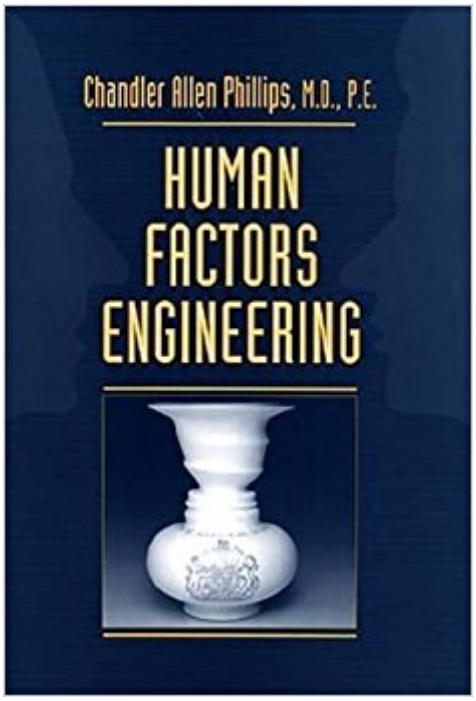
Human Factors Engineering



Synopsis

Apply Engineering Fundamentals to Human Factors Applications With a sound qualitative, mathematical approach, this new book shows how to use fundamental engineering skills to solve human factors application problems. As readers learn to use the same mathematical and analytical methods that are applied to inanimate devices, systems, and processes, they'll enhance their understanding of the interface between human factors and engineering science. Plus, the book shows how to apply human factors engineering concepts to ergonomic engineering practice and biomedical engineering, including evaluating the trade off in equipment design and human operator capabilities. Hey Features * A review of the relevant engineering fundamentals is provided prior to introducing the human factors applications. * Numerous worked examples, integrated throughout the text, show students how the relevant equations are used in a real-world human factors application. * Matlab is employed in the worked examples. This allows quantitative simulation of human operator performance that involves systems of simultaneous linear equations and non-linear equations.

Book Information

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Customer Reviews

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I used this as a textbook for a senior-level undergraduate / first-year graduate course in mechanical engineering. It is one of the best books ever written in the field of human factors and ergonomics. The book is highly quantitative in nature and is ideal for introducing human-centered design topics and/or projects in traditional engineering disciplines such as mechanical and electrical engineering. This textbook could be used for promoting the field of human factors and ergonomics (HFE), which traditionally has been a part of of industrial and systems engineering or psychology departments. I only hope that more faculty would use this book to teach HFE in their traditional disciplines.

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