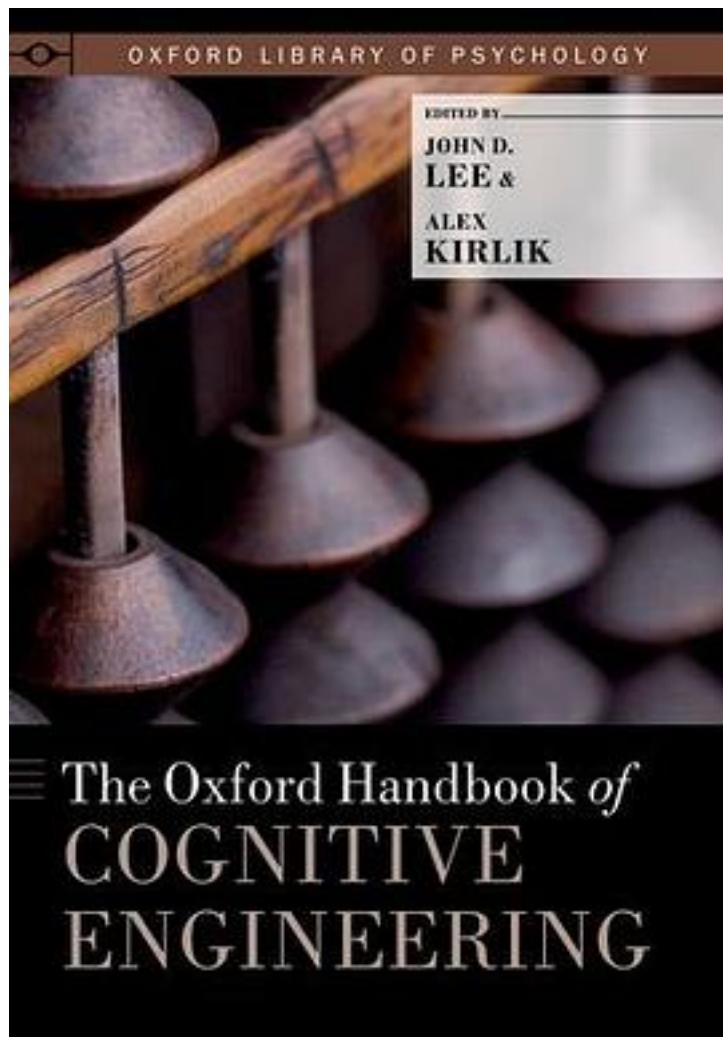


The Oxford Handbook of Cognitive Engineering



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著者:John D. Lee

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Cognitive engineering is an interdisciplinary approach to the analysis, modeling, and design of engineered systems or workplaces in which humans and technologies jointly operate to achieve system goals. As individuals, teams, and organizations become increasingly reliant on information technology and automation, it is more important than ever for system and workplace design to be maximally informed by state-of-the-art cognitive engineering research.

This volume is the first authoritative handbook to cover this recent and rapidly growing field. The handbook collects and organizes contemporary cognitive engineering research, drawing on the original research of more than 60 contributing experts. Coverage of human factors, human-computer interaction, and the conceptual foundations of cognitive engineering is extensive, addressing not only cognitive engineering in broader organizations and communities, but also focusing on individual cognition, addressing topics of attention, decision making, and multi-tasking. This thorough approach speaks to the broad scope of cognitive engineering, spanning the individual operator to teams and organizations, with a focus on how systems of people and technology, often in the form of automation, influences performance.

By collecting the best of cognitive engineering research in one volume, this book serves as both a convenient reference guide and as a useful entry point to the large and diverse research literature. As such, this handbook will be a valuable resource for researchers, students, and practitioners in cognitive engineering and a variety of related fields in need of guidance for how to put their products, systems, and services into the hands of human users, performers, and customers.

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