



An Introduction to Knowledge Engineering

By Simon Kendal, Malcolm Creen

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An Introduction to Knowledge Engineering By Simon Kendal, Malcolm Creen

An Introduction to Knowledge Engineering presents a simple but detailed exploration of current and established work in the field of knowledge-based systems and related technologies. Its treatment of the increasing variety of such systems is designed to provide the reader with a substantial grounding in such technologies as expert systems, neural networks, genetic algorithms, case-based reasoning systems, data mining, intelligent agents and the associated techniques and methodologies. The material is reinforced by the inclusion of numerous activities that provide opportunities for the reader to engage in their own research and reflection as they progress through the book. In addition, self-assessment questions allow the student to check their own understanding of the concepts covered. The book will be suitable for both undergraduate and postgraduate students in computing science and related disciplines such as knowledge engineering, artificial intelligence, intelligent systems, cognitive neuroscience, robotics and cybernetics.

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Editorial Review

Review

From the reviews:

"The book is written in a modern style, which should encourage undergraduate students to read it. ... Overall, the book covers all classical topics of knowledge-based systems: knowledge acquisition, representation, expert system shells, and life cycles. It could make a good textbook for undergraduate courses ... and the students research the uniform resource locator (URL) links provided." (Aladdin Ayesh, ACM Computing Reviews, Vol. 49 (4), April, 2008)

From the Back Cover

Knowledge Engineering, as a discipline and a profession, has emerged from the practical application of decades of research into artificial intelligence and intelligent systems. In particular, knowledge engineering refers to the development of systems that use knowledge, rather than data, to solve many novel computing problems. This is achieved by the application of computing techniques, closely associated with human cognitive processes, for transforming data into knowledge.

An Introduction to Knowledge Engineering presents a simple but detailed exploration of current and established work in the field. Its simple yet comprehensive treatment of knowledge based systems will provide the reader with a substantial grounding in such technologies as:

- expert systems
- neural networks
- genetic algorithms
- case based reasoning systems
- data mining
- intelligent agents.

The text includes activities and self assessments that provide opportunities for the reader to reflect on and reinforce their understanding of the concepts as they progress.

The book will be suitable for both undergraduate and postgraduate students in computing science and related disciplines such as Knowledge Engineering, Artificial Intelligence, Intelligent systems, Cognitive Neuroscience, Robotics and Cybernetics.

In addition, it is expected that anyone interested or involved in sophisticated information system developments will find the book a valuable source of ideas and guidance.

Users Review

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