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### DESCRIPTION

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**Database Systems** and **Knowledgebase Systems** share many common principles. *Data & Knowledge Engineering (DKE)* stimulates the exchange of ideas and interaction between these two related fields of interest. *DKE* reaches a world-wide audience of researchers, designers, managers and users. The major aim of the journal is to identify, investigate and analyze the underlying principles in the design and effective use of these systems. *DKE* achieves this aim by publishing original research results, technical advances and news items concerning **data engineering, knowledge engineering**, and the interface of these two fields.

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5. Tools for specifying and developing Data and Knowledge Bases using tools based on Linguistics or Human Machine Interface principles.
6. Communication aspects involved in implementing, designing and using KBSs in Cyberspace.

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## ABSTRACTING AND INDEXING

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### **INTRODUCTION**

Database Systems and Knowledgebase Systems share many common principles. *Data & Knowledge Engineering* (DKE) stimulates the exchange of ideas and interaction between these two related fields of interest. DKE reaches a world-wide audience of researchers, designers, managers and users. The major aim of the journal is to identify, investigate and analyze the underlying principles in the design and effective use of these systems. DKE achieves this aim by publishing original research results, technical advances and news items concerning data engineering, knowledge engineering, and the interface of these two fields.

### *Types of Paper*

DKE covers the following topics:

1. Representation and Manipulation of Data & Knowledge: Conceptual data models. Knowledge representation techniques. Data/knowledge manipulation languages and techniques.
2. Architectures of database, expert, or knowledge-based systems: New architectures for database / knowledge base / expert systems, design and implementation techniques, languages and user interfaces, distributed architectures.
3. Construction of data/knowledge bases: Data / knowledge base design methodologies and tools, data/knowledge acquisition methods, integrity/security/maintenance issues.
4. Applications, case studies, and management issues: Data administration issues, knowledge engineering practice, office and engineering applications.
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[3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

Reference to a website:

[4] Cancer Research UK, Cancer statistics reports for the UK. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>, 2003 (accessed 13.03.03).

Reference to a dataset:

[dataset] [5] M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for Japanese oak wilt disease and surrounding forest compositions, *Mendeley Data*, v1, 2015. <https://doi.org/10.17632/xwj98nb39r.1>.

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