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DESCRIPTION

Journal of Computational Design and Engineering is an international journal that aims to provide academia and industry with a venue for rapid publication of research papers reporting innovative computational methods and applications to achieve a major breakthrough, practical improvements, and bold new research directions within a wide range of design and engineering:

- Theory and its progress in computational advancement for design and engineering
- Development of computational framework to support large scale design and engineering
- Interaction issues among human, designed artifacts, and systems
- Knowledge-intensive technologies for intelligent and sustainable systems
- Emerging technology and convergence of technology fields presented with convincing design examples
- Educational issues for academia, practitioners, and future generation
- Proposal on new research directions as well as survey and retrospectives on mature field.

Examples of relevant topics include traditional and emerging issues in design and engineering but are not limited to:

- Field specific issues in mechanical, aerospace, shipbuilding, industrial, architectural, plant, and civil engineering as well as industrial design
- Geometric modeling and processing, solid and heterogeneous modeling, computational geometry, features, and virtual prototyping
- Computer graphics, virtual and augmented reality, and scientific visualization
- Human modeling and engineering, user interaction and experience, HCI, HMI, human-vehicle interaction(HVI), cognitive engineering, and human factors and ergonomics with computers
- Knowledge-based engineering, intelligent CAD, AI and machine learning in design, and ontology
- Product data exchange and management, PDM/PLM/CPC, PDX/PDQ, interoperability, data mining, and database issues
- Design theory and methodology, sustainable design and engineering, concurrent engineering, and collaborative engineering
- Digital/virtual manufacturing, rapid prototyping and tooling, and CNC machining
- Computer aided inspection, geometric and engineering tolerancing, and reverse engineering
- Finite element analysis, optimization, meshes and discretization, and virtual engineering
- Bio-CAD, Nano-CAD, and medical applications
- Industrial design, aesthetic design, new media, and design education
- Survey and benchmark reports

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INTRODUCTION

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- Computer graphics, virtual and augmented reality, and scientific visualization
- Human modeling and engineering, user interaction and experience, HCI, HMI, human-vehicle interaction(HVI), cognitive engineering, and human factors and ergonomics with computers
- Knowledge-based engineering, intelligent CAD, AI and machine learning in design, and ontology
- Product data exchange and management, PDM/PLM/CPC, PDX/PDQ, interoperability, data mining, and database issues
- Design theory and methodology, sustainable design and engineering, concurrent engineering, and collaborative engineering
- Digital/virtual manufacturing, rapid prototyping and tooling, and CNC machining
- Computer aided inspection, geometric and engineering tolerancing, and reverse engineering
- Finite element analysis, optimization, meshes and discretization, and virtual engineering
- Bio-CAD, Nano-CAD, and medical applications
- Industrial design, aesthetic design, new media, and design education
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Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. *Journal of Scientific Communications*, 163, 51–59. <https://doi.org/10.1016/j.Sc.2010.00372>.

Reference to a journal publication with an article number:

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