

# Intelligent Decision Technologies – an International Journal

## Call for Papers

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### ***Special Issue on COVID-19 Pandemic Crisis: Intelligent Knowledge Management Systems and Technologies to Support Decision Making***

**SUBMISSION DUE DATE:** March 31, 2021

#### **Context and Relevance**

The worldwide COVID-19 crisis has shocked the public health, economic and social dimensions (Liu et al., 2020). Multiple efforts on how computational technologies can help to cope with damage from this coronavirus are currently underway in the intelligent systems research arena. In this special issue, we research ways that Intelligent Knowledge Management Systems (i-KMS) and the associated intelligent decision technologies can provide effective, efficient and systemic decision-making support for relevant stakeholders and decision-makers in a pandemic crisis (Rehfuess et al., 2019; Portela et al., 2019; O’Leary, 2020).

KMS are defined as IT-based systems for collecting, codifying, distributing, and using valuable organizational knowledge (Alavi & Leidner, 2001). They are usually implemented with digital documenting and information retrieval systems and enhanced with intelligent decision technologies (i.e. ontologies, fuzzy cognitive maps, case-based reasoning, agent-based systems, heuristic ruled-based systems, natural languages interfaces, and the classic and modern data mining and machine learning), to create i-KMS. Both KMS and i-KMS have been applied to the healthcare domain and crisis management areas according to the literature (Andreadis et al., 2009; Jennex & Raman, 2009; Choi et al., 2014; Kumar, 2014; Ziuziański et al., 2014; Stoddart et al., 2015; Irfan et al., 2019).

The COVID-19 crisis has revealed that updated and enhanced intelligent concepts, frameworks, methods, and technologies are needed to effectively, efficiently, and ethically support stakeholders and decision-makers (Hevner et al., 2004; Arnott & Pervan, 2014) in the context of a pandemic crisis (Moghadas et al., 2009; Moberg et al., 2018; Shearer et al., 2020; Squazzoni et al., 2020; Aghazadeh & Padoano, 2020; O’Leary, 2020).

#### **OBJECTIVE OF THE SPECIAL ISSUE**

To advance intelligent Knowledge Management Systems and associated Intelligent Systems concepts, frameworks, methods, and technologies to meet the severe health, economic, and social challenges that emerged from the COVID-19 pandemic crisis in this decade. High-quality conceptual and empirical research papers are invited from the international interdisciplinary scientific community interested in helping to provide better decision-making support to stakeholders and decision-makers in the context of a pandemic crisis through intelligent Knowledge Management Systems and Intelligent Systems.

#### **RECOMMENDED TOPICS**

The following topics are welcome in this special issue (but they are not limited to):

- Conceptual analysis of the WHO-INTEGRATE Evidence to Decision Framework with an intelligent KMS perspective or Intelligent System
- Conceptual intelligent KMS architectures and Intelligent Systems derived from the WHO-INTEGRATE Evidence to Decision Framework.

- Empirical designs and evaluations of intelligent KMS and Intelligent Systems tools derived from the WHO-INTEGRATE evidence to Decision Framework.
- Design methodologies for intelligent KMS and Intelligent Systems applied in the context of pandemic crisis.
- Evaluation methodologies for intelligent KMS and Intelligent Systems applied in the context of pandemic crisis.
- Development and proof of concept of intelligent KMS and Intelligent Systems applied in the context of pandemic crisis.
- Comparison of intelligent technologies for developing intelligent KMS and Intelligent Systems applied in the context of pandemic crisis

**Important Dates:**

Deadline for submission: March 30, 2021

First notification of results: May 30, 2021

Revision due: June 30, 2021

Final notification: July 30, 2021

Tentative Publication: Fourth quarter of 2021

**Submission Procedure:**

Kindly follow the guidelines given in the journal website for submission and manuscript preparation. Note that the publisher will typeset the final article but will not format references. For any queries, contact the guest editors.

**Important Instruction:**

To be appropriately identified, submissions for this special issue must include **“Special Issue: Covid-19”** in the title of the submission. This identifier can be removed before final publication.

**NOTES**

1. Information on the Intelligent Decision Technologies – an International Journal at: <https://content.iospress.com/journals/intelligent-decision-technologies/>
2. Information about submission guidelines at: <https://www.iospress.nl/journal/intelligent-decision-technologies/?tab=submission-of-manuscripts>

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