**Journal of Data, Information, and Management**

***Call for Paper for Special Issue on***

***Big Data Analytics and Artificial Intelligence to Combat a Pandemic***

COVID-19 has become a global public health pandemics, causing hundreds of thousands of deaths and trillions of dollars of economic damage. Scientists, researchers, doctors and healthcare experts around the world are studying this pandemic and its impacts on individuals, organizations and societies. While there is no cure yet for the virus, contact tracing has become an important part of the response to the covid-19 pandemic. This has led to calls for new technologies such as machine learning and artificial intelligence, capable of detecting, tracking, and isolating Covid-19 cases, to slow the spread of the coronavirus. This also includes performing predictive analytics on relational, temporal and/or spatial data (medical encounter data, hospital admission data, social media data, mobile apps data and others) and use the insights from it to understand and monitor the epidemic. Further, the impact of Covid-19 is not limited just to the healthcare sector as all other sectors of any economy of the world are affected as well.

Therefore, due to the Covid-19 pandemic, the need to understand different things in a new way has also created pressure to develop analytical tools. In particular, research has been done on how the virus spreads among the population and what health problems are caused by viral infections, as well as how different treatment measures affect the disease. Recently, however, other problems caused by the Covid-19 virus, such as economic and social problems, have also arisen. These various problems are constantly accumulating a considerable amount of data, which can be either a well-defined or fragmented news stream.

In this special issue of the *Journal of Data, Information and Management* on the theme of “Big Data Analytics and Artificial Intelligence (including machine learning) to combat Covid-19” is intended to obtain insights and viewpoints from scholars and practitioners on the use of new technologies such as artificial intelligence and machine learning for the prevention or reduction of the negative impact of COVID-19. We seek for articles that apply artificial intelligence, machine learning and data science concepts and techniques to study the pandemic and its effects on individuals, organizations or the supply chain at large.

Topics of interests include, but are not limited to:

* The behavioral, temporal, societal, and organizational aspects of the pandemic
* Predictive modeling of COVID-19 spread based on hospital data
* Location-based human mobility data (e.g. social media, mobile) to track COVID-19
* Use of AI and machine learning enabled devices to detect COVID-19
* Analysis of disease transmissions and interventions
* Data analysis of the impact of various (non)government intervention policies (e.g. stay-at-home, mask mandate) on the COVID-19 transmission
* How enterprise systems (i.e. ERP, SCM, CRM) complement, the ever increasing need to work from home.
* Urban logistics
* Sustainability issues
* Supply Chain Flexibility
* Food Supply Chains
* Distant work (productivity and social impact)
* Innovation in the supply chain
* Globalization of supply chains
* Supply Chain Risk
* Innovative strategies to limit risk of epidemic disease propagation
* Simulation of outbreak events
* Big data-driven health system response to epidemic outbreaks on operations risk identification
* AI-based epidemic network analysis
* MCDM models in field of healthcare risk management
* IoT application in healthcare
* Humanitarian logistics dealing with uncertainties
* Other topics related this special issue

***Important Dates:***

December 15, 2020: Submission deadline for paper submission

January 31, 2021: First round of reviews to the authors

March 31, 2021: Submission of the revised papers

May 15, 2021: Notification of the acceptance decision

August 1, 2021: Publication of the special issue

***Guest Editor-in-Chief:***

Jatinder N. D. Gupta, University of Alabama in Huntsville, guptaj@uah.edu

***Guest Editors***:

Markku Kuula, markku.kuula@aalto.fi

Yanfei Lan, Tianjin University, lanyf@tju.edu.cn

Amir Zadeh, Wright State University, amir.zadeh@wright.edu

***Submission Instructions****:* Inquiries about this special issue should be directed to guest editors. All papers must be submitted through the official online submission system at <https://www.editorialmanager.com/dima/default.aspx>, and select the special issue from the menu. Please follow the instructions to authors <https://www.springer.com/journal/42488/submission-guidelines>. All papers will undergo the journal’s standard initial screening processes.

For questions about this special issue, please contact the guest editor-in-chief, Jatinder Gupta via e-mail at guptaj@uah.edu or telephone at +1 256 824-6593.