

DoSCI-2021
International Conference/Doctoral Symposium on Computational Intelligence
Organized by Institute of Engineering & Technology, a constituent college of Dr APJ Abdul Kalam Technical University Lucknow, India
On 06 March 2021.

*******CALL FOR PAPERS*******

SPECIAL SESSION ON

Big Data for Industry 4.0: Applications & Challenges

SESSION ORGANIZERS:

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EDITORIAL BOARD: (Optional)

TBD

SESSION DESCRIPTION:

Industry 4.0 or fourth industrial revolution refers to interconnectivity, automation and realtime data exchange between machines and processes. There is a tremendous growth in big data from internet of things (IoT) and information services which drives the industry to develop new models and distributed tools to handle big data. Cutting-edge digital technologies are being harnessed to optimize and automate production including upstream supply-chain processes, warehouse management systems, automated guided vehicles, drones etc. The ultimate goal of industry 4.0 is to drive manufacturing or services in a progressive way to be faster , effective and efficient that can only be achieved by embedding modern day technology in machines, components, and parts that will transmit real-time data to networked IT systems. These, in turn, apply advanced soft computing paradigms such as machine learning algorithms to run the process automatically without any manual operations. However, the high complexity, automation, and flexibility of an intelligent factories being new challenges to reliability and safety. It might provide new solutions for predictive maintenance to improve system reliability.

The special session on Big Data for Industry 4.0 explores and expects manuscripts that covers an overview of the state of the art in the field of Industry 4.0 and related research advancements. The respective papers under series should identify and discuss new dimensions of both risk factors and success factors, along with performance metrics that can be employed in future research work. Research under the session should discuss a number of real-time issues, problems and applications with corresponding solutions and suggestions. Sharing new theoretical findings, tools and techniques for

Industry 4.0, and covering both theoretical and application-oriented approaches, the session will offer a valuable asset for newcomers to the field and practicing professionals alike.

RECOMMENDED TOPICS:

Topics to be discussed under special session of Big Data Industry 4.0 includes (but are not limited to)

- ✓ Big data for Industry 4.0 – Challenges and its applications
- ✓ Internet of Things based big data analytics – conceptual framework
- ✓ Empower manufacturing production based on big data analytics and industry 4.0.
- ✓ Industry 4.0 for Smart Manufacturing – Digitalization framework
- ✓ Digitalized manufacturing production using big data vision for machine tool 4.0
- ✓ Breakthroughs in Industry 4.0
- ✓ Machine Learning & Applications
- ✓ Block Chain and Cryptocurrency
- ✓ Soft Computing for Problem Solving in engineering and sciences
- ✓ Data Communication & Networks
- ✓ The Industrial Internet of Things
- ✓ Artificial Intelligence applications for sustainable development
- ✓ Fog Computing
- ✓ Big Data Analytics in the Cloud
- ✓ Descriptive, Predictive, Prescriptive Analytics
- ✓ Reinforcement learning & Optimization
- ✓ Big Data Virtualization
- ✓ Data Federation
- ✓ Applications in the field and many more

Submission Procedure

- Researchers and practitioners are invited to submit papers for this special theme session **On Big Data for Industry 4.0 on or before 31st December 2020.**
- All submissions must be original and novel work. All submitted papers will be reviewed on a double-blind, peer review basis.
- Interested authors should consult the conference's guidelines for manuscript submissions at http://dosci-conf.com/paper_submission.html

Call for Book Editors/Authors

On the behalf of CRC Press, Taylor & Francis Group, USA, we are delighted to share the information about our book series on “Big Data for Industry 4.0: Challenges and Applications”, which will cover recent research work in the domains of Big Data Analytics for

Industry 4.0, Big Data in Business, Blockchain, Internet of Things, and Machine Learning. The series will attract quality work, case studies, industry-academia aligned research-work in the form of edited, authored books, textbooks, reference works, and handbooks.

The focus of this book series will be to collate the recent work in the field of Big Data Analytics for Industry 4.0 and Big Data in Business, so that Undergraduate and Postgraduate students, Researchers, Academicians, and Industry people can easily understand the implications and application of the field. We welcome you to contribute as an Author / Editor to write/edit a scientific book on the theme *(but not limited to)* Big Data Analytics for Industry 4.0. Please contact **submission.bigdata@gmail.com**

NOTE: While submitting paper in this special session, please specify:

BIG DATA for INDUSTRY 4.0 at the top (above paper title) of the first page of your paper.
