



FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

Big Data Analytics with Multi-Criteria Decision-Making Method

Organized by

Center for Continuing Education, NIT Warangal & Department of Computer Science and Engineering, Heritage Institute of Technology Kolkata (HIT-K)



September 24 – 28, 2021

5 PM-8 PM

About the NIT Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years, the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B. Tech degrees in various branches of engineering, M. Tech, and Ph. D programs in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

Centre for Continuing Education (CCE) NIT Warangal:

This CCE of NIT Warangal organizes Continuing Education Programmes and Workshops in the frontier areas of Science, Engineering, Technology, Management, Humanities, Social Science and Socially relevant themes on self-financing basis in three different modes: (i) At NIT Warangal by NIT Warangal (ii) At NIT Warangal in collaboration with other organizations (iii) By NIT Warangal Faculty at the Host Organization/Institute.

Heritage Institute of Technology Kolkata (HIT-K):

Heritage Institute of Technology Kolkata (HIT-K), an autonomous institute declared by UGC is a premier engineering college of Kolkata. The institute was founded in 2001 by Kalyan Bharti Trust with a vision to prepare dynamic and caring citizens to meet the challenges of a global society while retaining their traditional values. Its all B. Tech courses are duly approved by All India Council for Technical Education. Also all the academic programs of HIT-K are accredited by National Board of Accreditation (NBA) and was accorded the independent autonomous status by UGC w. e. from the academic session 2014-2015. The campus of the institute is located near Eastern Metropolitan Bypass and Basanti Highway and has state of the art infrastructure facilities.

About the Course:

Multiple Criteria Decision Making (MCDM) is an important area of Operations Research, dealing with decision making problems. As big data analysis towards industrial applications is one of the current issues of Industry 4.0, MCDM methods play a big role as front end of the said big data analytics with traditional data analytics techniques thus comprising various types of hybrid models. Implementation of hybrid models in the industry level are labelled as emerging useful methods for evaluating and improving alternatives. With the advent of the gradual development of information technology and the growth of the technology pertaining to data analysis, machine learning oriented data envelopment analysis with resilient model can address academic as well as innovative research & development program of any organizations. Therefore, data-driven MADM models can integrate machine learning/data mining and MCDM methods to help decision-makers to recommend or select the best alternative for related problems of various organizations/industries.

Different Government/non-government organizations, educational institutes, and business entities around the globe persistently carryout experimentations, surveys, and analyses on numerous issues. As a result, a huge amount of intellectual resources (data, information, and/or knowledge) has been accumulated and stored in numerical, textual, graphical, audio, and video forms. In general, when we link and access such intellectual resources through the Internet, we call it "big data." The fact of the matter is that big data will serve as a source of decision-relevant information while making both formal and informal decisions.

The main focus of this course is to address this hybridization as a combined platform of big data analytics with MCDM methodologies to establish new decision-making models in management sciences.

Course Contents

- ❖ Multiple-criteria decision-making (MCDM)
- ❖ Data mining
- ❖ Data driven decision making
- ❖ Machine learning
- ❖ Knowledge-based systems
- ❖ Hybrid multiple-criteria decision-making methods
- ❖ Intelligent decision support systems
- ❖ Optimization techniques
- ❖ Soft computing
- ❖ Application of MCDM methods

Resource Persons:

Eminent faculties from IITs, NITs, Central Universities, Experts from Industries and Senior faculty members from different departments of NIT Warangal will deliver talks and conduct hands on sessions.

Who should Attend?

The programme is open to Faculty members, Research scholars, PG students, UG students of all Engineering colleges and other allied disciplines in India.

Registration:

Registration fee is Rs.: 500/- for participant.

Registration fee may be remitted Online through NEFT to the Bank account given below. Proof of remittance of the requisite registration fee (with transaction number if online transaction) shall be uploaded in the google form.

| | |
|--------------|---------------------------------------|
| Account Name | Centre for Continuing Education, NITW |
| Bank Name | State Bank of India |
| A/C No. | 62403680215 (Savings Account) |
| IFSC Code | SBIN0020149 |
| Branch | NIT Warangal |

How to Apply: Eligible candidates may apply by filling the following google form with payment proof on or before 20th September, 2021.

<https://forms.gle/uvKgRbetuQmaMfYWA>

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