

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Department of CSE & IT

Title of the activity:	Online National workshop on “ Data Sciences: Techniques and Tools ” under TEQIP-III
Date	20-21 June 2020
Brief description of the activity:	<p>In today's world, data plays a vital role in any organization or field, helping it to make critical decisions depending on the patterns and facts deduced from the data. Data science is a concept to bring together ideas, data examination, Machine Learning, and their related strategies to comprehend and dissect genuine phenomena with data. Data science is an extension of various data analysis fields such as data mining, statistics, predictive analysis and many more. Data Science is a huge field that uses a lot of methods and concepts which belongs to other fields like information science, statistics, mathematics, and computer science. The applications of data sciences include: Fraud & Risk Detection, Healthcare, Internet Search, Targeted Advertising, Website Recommendations, Advanced Image Recognition, Speech Recognition, Airline Route Planning, Gaming, Augmented Reality and many more.</p> <p>In view of all these applications and benefits of data science, we organized an online national workshop on “Data Sciences: Techniques and Tools”, which focused on highlighting various concepts and techniques used in data sciences for the desired analysis of data and use of available tools for the implementation of these methods. The workshop benefited faculty, research scholars as well as students because these days this field is one of the hot research topics and is also used in corporate sectors for business analysis and other applications. Since the field is the amalgamation of various other fields, it brought various experts from multiple fields together for knowledge sharing and will encourage interdisciplinary research too.</p>
Objectives of the activity:	<ul style="list-style-type: none">• To Motivate and equip the participants with the basics as well as the recent trends in Data Sciences, and its applications for solving wide variety of problems in various fields of engineering and technology.• To expose the faculty members and students with the newer dimensions of the area with their practical approaches to tackle the real life problems in engineering and technology and other related disciplines.• To take up various challenges of the present day to day societal problems for their acceptable logical solutions.
Outcomes of the activity:	<p>After the completion of activities, participants were able to</p> <ul style="list-style-type: none">• Understand the techniques and tools used in data sciences.• Analyse real world problems and implement data science techniques to solve the same.• Evaluate the efficiency and efficacy of data science techniques.

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Experts	<ol style="list-style-type: none">1. Prof. Deepak Garg (Director leadingindia.ai; Professor and Head-Computer Science and Engineering Department, Bennett University, Noida; Director, NVIDIA-Bennett Research Centre for Artificial Intelligence.)2. Prof. Ramjeevan Singh Thakur (Professor, Department of Computer Applications, MANIT, Bhopal.)3. Dr. Mukesh Saraswat (Associate Professor, Jaypee Institute of Information Technology, Noida)4. Dr. Dinesh K. Vishwakarma (Associate Professor, Department of IT,DTU, Delhi)5. Dr. Vivek Kapoor Department of IT, IET,Devi Ahilya University, Indore)6. Dr. Virendra Kumar Shrivastava (Prof. & Dean Engineering, SGT University, Gurugram)
Number of Participants	Total Participants: 101 Internal Participants: 47 External Participants: 54 Assistant Professor:53 Associate Professor:3 Research Scholar: 11 Students: 34

Dr. Akhilesh Tiwari
Prof. & Head

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PATRON

Dr. R.K. Pandit
Director
MITS Gwalior

WORKSHOP TEAM

CONVENER

Dr. Akhilesh Tiwari
Prof. & Head CSE&IT

COORDINATORS

Mr. Arun Kumar (Assist. Prof., CSE&IT)
+91-8826708753
arun.vsrana@mitsgwalior.in

Mr. Mir Shahnawaz Ahmad (Assist. Prof., CSE&IT)
+91-7006080550
mirshahnawaz888@mitsgwalior.in

ASSOCIATE COORDINATORS

Mr. Mohit Jain (Assist. Prof., CSE&IT)
Ms. Aishwarya (Assist. Prof., CSE&IT)
Ms. Pooja Agrawal (Assist. Prof., CSE&IT)
Mr. Lav Upadhyay (Assist. Prof., CSE&IT)
For Tech. Support: Mr. Shubham Sharma (Research Scholar)

REGISTRATION

Faculty members, Research scholars and UG/PG students in relevant discipline of degree level technical Institution/Universities approved by AICTE are eligible to attend the workshop. The number of participants is limited. The interested candidate needs to apply online at <https://forms.gle/zQEnENLXkrfrwjax7> (on or before 17th June, 2020). Shortlisting of participants will be on First Come First Serve basis. The shortlisted candidates will be informed via E-mail.



ONLINE NATIONAL WORKSHOP ON DATA SCIENCE: TECHNIQUES & TOOLS UNDER TEQIP-III JUNE 20 - 21, 2020

ORGANIZED BY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AND
INFORMATION TECHNOLOGY



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

(A GOVT. AIDED UGC AUTONOMOUS & NAAC ACCREDITED INSTITUTE, ESTABLISHED IN 1957) GWALIOR, M.P. 474005



www.mitsgwalior.in

PREAMBLE

The field of engineering and technology is facing unparallel changes and consolidations. As educators, we must be continuously aware of these developments so that we cannot only define a fixed path but also we have to take full advancement in engineering and technology. Keeping view of the current thrust, relevance and importance of the development in engineering and technology, the faculty members of technical institute have to keep a place with its exchanging trends for social and industrial benefits. Researchers and Scientists have applied modelling and computational techniques as a tool to represent the various problems in real word situations. It is because of the wide applicability of Data Sciences in different domains of Engineering and Technology, this Workshop is being organized with the following objectives.

- Motivate and equip the participants with the basics as well as the recent trends in Data Sciences, and its applications for solving wide variety of problems in various fields of engineering and technology.
- To expose the faculty members and students with the newer dimensions of the area with their practical approaches to tackle the real life problems in engineering and technology and other related disciplines.
- To take up various challenges of the present day to day societal problems for their acceptable logical solutions.

This Workshop will be helpful for faculty members and researchers to utilise methods, tools, and computational techniques for real life problems solving.

REGISTRATION FEE

There will be no registration fee for the participants from AICTE recognized Institutions

WORKSHOP CONTENTS

The following topics will be covered in this Workshop:

- Introduction to Data Science.
- Mathematical concepts behind Data Science techniques.
- Introduction to various techniques/approaches used in Machine learning, Deep learning and other sub fields of Data Sciences.
- Applications of Data Science Techniques, including the fight against COVID - 19.
- Visualization, Data Pre-Processing, Classification and Regression Analysis.
- Various tools used for the implementation of techniques used in data science.

RESOURCE PERSONS

- **Dr. Deepak Garg**,
Director leadingindia.ai;
Professor and Head-Computer Science and Engineering Department, Bennett University, Noida;
Director, NVIDIA-Bennett Research Centre for Artificial Intelligence.
- **Dr. Dinesh K. Vishwakarma**,
Associate Professor, Department of IT, DTU, Delhi.
- **Dr. Mukesh Saraswat**,
Associate Professor, Jaypee Institute of Information Technology, Noida.
- **Dr. Vivek Kapoor**,
Assistant Professor, Department of IT, IET, Devi Ahilya University, Indore.
- **Dr. Virendra Kumar Shrivastava**,
Prof. & Dean Engineering, SGT University, Gurugram.
- **Dr. Ramjeevan Singh Thakur**,
Professor, Department of Computer Applications, MANIT, Bhopal.

ABOUT MITS

Madhav Institute of Technology and Science (MITS), Gwalior was established by His Highness Late Sir Jiwaji Rao Scindia, Maharaja of Erstwhile State of Gwalior, with an aim to create world class quality engineers and technocrats capable of providing leadership in all spheres of life and society. Founded as Madhav Engineering College in 1957 with three UG programmes, this temple of learning is now about 60 years old. Since its inception, the institute has constantly strive for excellence and quality in technical education. Today, the institute offers nine UG programmes along with research programmes leading to Masters and Ph.D. degree in various specializations of engineering and technology. All the departments of the institute have well equipped laboratories and experienced faculties. The institute is a minor QIP centre of AICTE for Ph.D. programme in five disciplines. The institute is also funded by World Bank under TEQIP phase III to strengthen the quality of technical education.



LOCATION

Gwalior city has major road and rail connectivity. The Institute is located on Agra-Bombay Road (NH-3) and is approximately 320 KM from Delhi. The institute is located in the heart of city and is at a distance of about 2 km from Gwalior Bus Stand/Gwalior Railway Station.

ABOUT THE DEPARTMENT

The department of CSE & IT has an excellent & rich history and an outstanding record of contributions to the profession and community. The department is well recognized for excellence in facilities and teaching. The Department offers UG, PG and Ph.D. Programmes in Computer Science & Engineering and Information Technology. The Department has a comprehensive curriculum on topics related to all aspects of Computer Hardware and Software with an emphasis on practical learning. The course structure is up-to-date and includes courses on emerging topics to equip our students with the latest developments in Computer Science and Engineering. The Department has state-of-art infrastructure and computing equipment supported by high speed Ethernet and wireless networks. Our faculty members aim at delivering top class education blending their rich research experience with classroom teaching.

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Activity Schedule

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Department of Computer Science & Engineering and Information Technology

ONLINE NATIONAL WORKSHOP

ON

DATA SCIENCE: TECHNIQUES & TOOLS

UNDER TEQIP-III, JUNE 20 - 21, 2020

Workshop Schedule

	10:00 AM to 11:30 AM	01:00 PM to 02:30 PM	03:30 PM to 05:00 PM
20 th June, 2020 (Saturday)	Session – 1: Dr. Mukesh Saraswat <i>Associate Professor, Jaypee Institute of Information Technology, Noida.</i> (Session Topic: Introduction to Deep Learning)	Session – 2: Dr. Vivek Kapoor <i>Assistant Professor, Department of IT, IET, Devi Ahilya University, Indore.</i> (Session Topic: Introduction to various soft computing techniques, Genetic and Evolutionary Algorithms)	Session – 3: Dr. Dinesh K. Vishwakarma <i>Associate Professor, Department of IT, DTU, Delhi.</i> (Session Topic: Insight of Convolutional Neural Network)
21 st June, 2020 (Sunday)	Session – 4: Dr. Deepak Garg <i>Director leadingindia.ai; Professor and Head-Computer Science and Engineering Department, Bennett University, Noida; Director, NVIDIA-Bennett Research Centre for Artificial Intelligence.</i> (Session Topic: Applications of Artificial Intelligence for the fight against COVID – 19)	Session – 5: Dr. Ramjeevan Singh Thakur <i>Professor, Department of Computer Applications, MANIT, Bhopal.</i> (Session Topic: Data Science Applications)	Session – 6: Dr. Virendra Kumar Shrivastava <i>Prof. & Dean Engineering, SGT University, Gurugram.</i> (Session Topic: Supervised Machine learning Techniques)

Note:

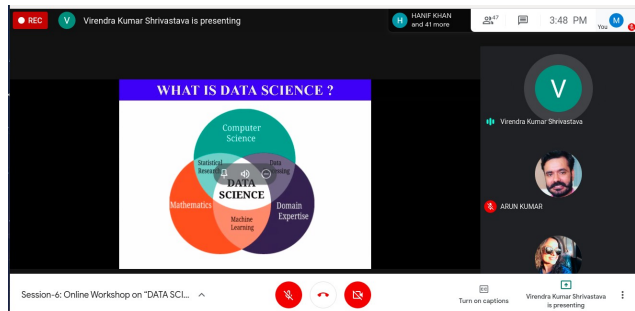
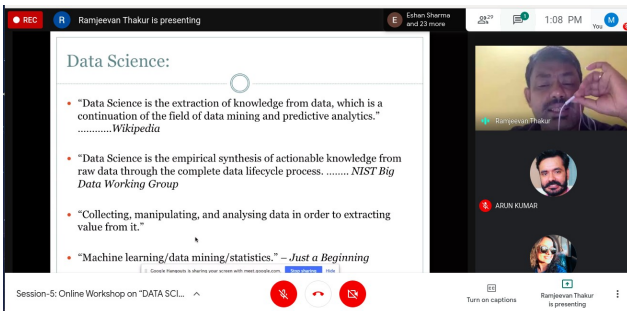
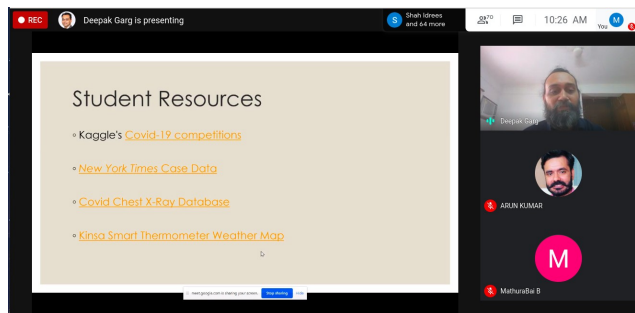
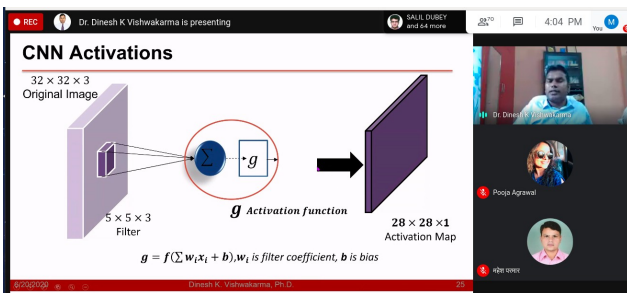
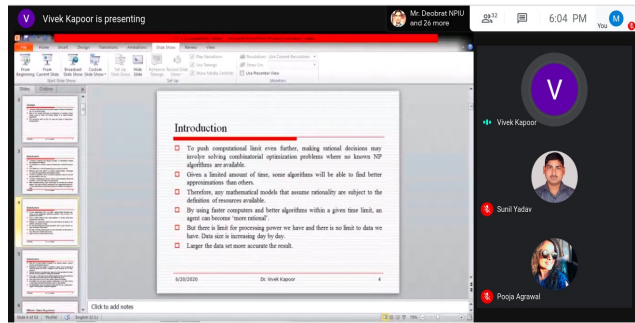
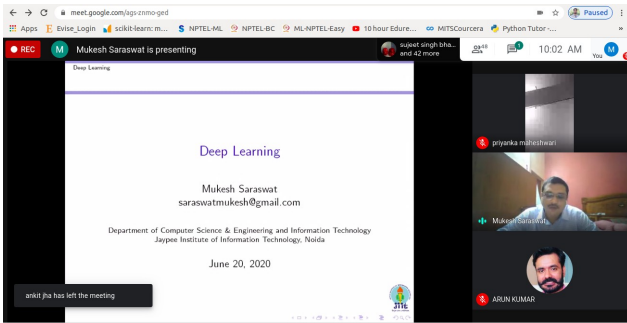
- The link to join each online session will be provided to all the participants via registered E-mail by workshop organizing team members in due course of time.
- Kindly put your microphone and video to mute when joining any workshop session to avoid any disturbance.

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Some Glimpses of the event



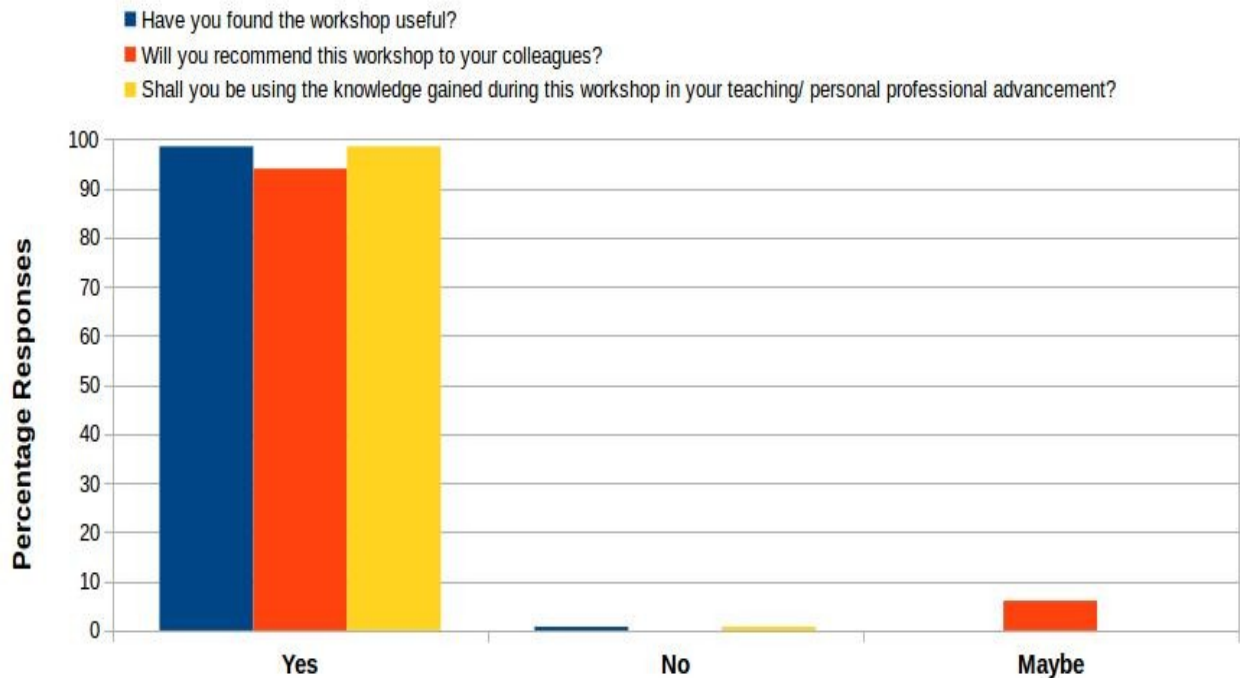
V.K.S.

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Feedback



V. S. J.