



**A REPORT
OF
FACULTY DEVELOPMENT PROGRAMME
ON**

DATA SCIENCE FOR ALL

**CONDUCTED THROUGH NKN
BY**

**DEPARTMENT OF COMPUTER SCIENCE AND APPLICATION
ATAL BIHARI VAJPAYEE VISHWAVIDYALAYA, BILASPUR (C.G)**

IN ASSOCIATION WITH

ICT ACADEMIES

MINISTRY OF ELECTRONICS & INFORMATION TECHNOLOGY (MEITY), GOV. OF INDIA

DATE : 27 JULY - 7 AUG 2020

**PRINCIPAL CO-ORDINATING
ACADEMY**

NIT WARANGAL

**CO-PRINCIPAL CO-ORDINATING
ACADEMY**

IITDM JABALPUR

CO-ORDINATOR, NODAL CENTRE

**Dr. H. S. HOTA
HOD
DEPT. of CSA
ABVV, BILASPUR (C.G.)**

ABOUT ICT ACADEMICS

India is fast emerging as a world power in Information, Communications Technology and Electronics (ICTE) sectors. To complement its growth and further development, there is an ever-increasing need for trained professionals with specialization in this space. This includes training of professionals not only in existing and changing technologies but also in the fields of R&D and electronics manufacturing. This will specifically be aimed at the ICTE sector to create a substantial resource pool of talent and generate ample opportunities for entrepreneurs. Ministry of Electronics & Information Technology (Meity) has approved a scheme and setup Electronics and ICT Academies at 07 (seven) institutions viz. IIT Guwahati, IIT Kanpur, NIT Warangal, NIT Patna, IIITDM Jabalpur, IIT Roorkee and MNIT Jaipur. The Ministry had earlier setup two ICT Academies at Tamil Nadu and Kerala respectively. These Academies are aimed at faculty/mentor development and upgradation to improve the employability of the graduates, diploma holders in various streams, through collaboration of States/Union Territories. Each Academy is being provided funding support for four years and is expected to generate revenue by charging fee and taking up other activities to meet the recurring cost in a gradual manner and become self-sustainable by the end of fourth year onwards. All these Academies will cater to the requirements of identified neighbouring States and UTS also.

ABOUT REMOTE CENTRE

Electronics & ICT Academy, PDPM IIITDM Jabalpur has identified Department of Computer Science & Application, Atal Bihari Vajpayee University, Bilaspur (C.G.) as remote nodal centre to run FDP from time to time. The objective is to meet the skill requirements of the industry and generate more employment especially in tier 2 and 3 towns, the rural parts of the country. Initially the department was the only remote nodal centre in the state of CG.



MODULES COVERED

MATHEMATICAL FOUNDATIONS
OF DATA SCIENCES

DATA PROCESSING

MACHINELEARNING BASICS

R FOR DATA SCIENCE

PYTHON FOR DATA SCIENCE

DEEP LEARNING

SCIKIT, KERAS AND
TENSORFLOW

EVENT DETAILS

The Faculty Development Program (FDP) on "Data Science for All" was conducted from July 27 to August 7, 2020. This program took place in a physical mode at a remote nodal center, identified by the IIITDM ICT Academy. The lectures were delivered through online mode using video applications. The FDP attracted the participation of 58 enthusiastic attendees from nearby universities and colleges. NIT Warangal served as the principal coordinating academy, while IIITDM Jabalpur acted as the co-principal coordinating academy for this FDP. The program focused on the burgeoning field of Data Science, acknowledging its significance in the 21st century. The FDP covered essential topics related to Data Science, Artificial Intelligence (AI), and Machine Learning (ML). These areas collectively represent a comprehensive approach to extracting insights from data for various applications. Participants expressed their enjoyment during the hands-on practice sessions, particularly those related to Data Science, AI, and ML. These practical sessions allowed participants to apply theoretical concepts in a real-world context, enhancing their understanding and skillset. The FDP concluded with a certificate distribution ceremony on the last day. Vice Chancellor Prof. G.D. Sharma personally distributed certificates to all 58 participants. A group photo was taken to capture the shared experience and success of the program. Feedback from the participants reflected their satisfaction with the program's comprehensive coverage of Data Science, AI, and ML. The hands-on practice sessions were particularly well-received, providing a practical dimension to the theoretical concepts. The interactive learning environment, facilitated through online lectures and hands-on practice, contributed to a collaborative and engaging educational experience. Participants actively engaged in discussions, shared insights, and collaborated on practical exercises. Participants expressed their eagerness to integrate the newly acquired knowledge and skills into their teaching methodologies and research pursuits. The practical exposure to Data Science is expected to empower them to address contemporary challenges in their respective fields.

In conclusion, the online Faculty Development Program on "Data Science for All" successfully addressed the growing demand for expertise in Data Science. The collaboration between NIT Warangal and IIITDM Jabalpur, combined with the active participation of teachers and researchers, ensured a program that not only met but exceeded the expectations of the participants. As the certificates were distributed and a group photo was taken on the last day, it marked the culmination of a program that not only broadened horizons but also fostered a sense of shared learning and growth in the academic community.

PROGRAM SCHEDULE

Schedule for Online FDP on “Data Science for ALL”

(Jointly by E&ICT Academies – NIT Warangal and IIITDM Jabalpur)

Participating Academies: NIT Patna, IIITDM Jabalpur and their remote centers and NIT Warangal.
NIT Warangal will deliver lectures and demos through platform of Codetantra.

Academies are requested to send soft copy of names, email ids of participants registered with them.

Dates in 2020	10 a.m.-12 noon	2 pm - 4 pm	Tests
27-July	Mathematical Foundations- DVS	Statistical Foundations Part 1 - VR	
28-July	Python for Data Science Part1- AG	Statistical Foundations Part 2- VR	
29-July	Python for Data Science Part2- AG	Graphical Analysis - DVS	Assignment Test - 1
30-July	Statistical Foundations Part 3- VR	Data Wrangling – PRK	
31-July	Holiday (Bakrid)		
1- August	Data Preprocessing – AG	Linear Model Subset Selection, Cross Validation Techniques – DVS	
2-Aug	R Programming Part 1 – TRK	Classification – Part 1- AG	Assignment Test - 2
3-Aug	Holiday (Rakhi/Raksha Bandhan)		
4-Aug	Classification :Decision Trees- RBS	Classification:Other Methods- RBS	
5-Aug	Clustering Part-1: SKM	Clustering Part-2: SKM	
6-Aug	R Programming Part 2 – TRK	Map Reduce - RBS	
7- August	Deep Learning Part 1- MAK	Deep Learning Part 2 – MAK	Assignment Test - 3

Respective academies will conduct Assignment tests to the participants enrolled with them and Evaluate.

e- Certificates will be sent on 11 August 2020 through email after evaluating Assignment Tests

(Resource Persons are requested to set relevant assignment test questions and send the same with keys to rbvs66@gmail.com and atul@iiitdmj.ac.in (Dr Atul Gupta, Head Dept of CSE, IIITDM Jabalpur)

ATTENDANCE OF PARTICIPANTS

Name	Institute	Designation
Harshit Kumar	Mahatma Gandhi Central University, Bihar	Student
rishabh kumar hota	BMS college of Engineering	student
Dr. H.S. Hota	Atal Bihari Vajpayee University	Faculty
Dr. Amita Telang	Gurukul Mahila Mahavidyalaya,Raipur(C.G.)	Faculty
Krishna Kant Dubey	Swami Shri Swaroopanand Saraswati Mahavidyalay	Faculty
Dr. Amit Kumar Chandanan	Guru Ghasidas Vishwavidyalaya (Central University) Bilaspur	Assistant Professor
Vivek Kumar Sarathe	Guru Ghasidas Vishwavidyalaya (Central University) Bilaspur CG	Assistant Professor
vikas kumar pandey	guru ghasidas university , bilaspur	faculty
SURESH KUMAR THAKUR	Indira gandhi Govt art & Comm college, vaishali Nagar	Faculty
LEELADHAR KUMAR GAVEL	Govt. G. S. G. P. G. College, Balod (C.G.)	Faculty
Dr. Rajwant Singh Rao	Guru Ghasidas Vishwavidyalaya Bilaspur Chhattisgarh	Faculty
DURGESH KUMAR KOTANGLE	Govt. V.Y.T. PG. AUTONOMOUS COLLEGE, DURG (C.G.)	PHD SCHOLAR
RAGHU RAMAKRISHNAN	1. Tata Consultancy Services 2. Guru Gobind Singh Indraprastha University, Delhi	Others
Jyoti Bala Gupta	Dr C. V. Raman University, kota, bilaspur	Faculty
Dr.Selvan.C	National Institute of Technology, Tiruchirappalli	Post Doctoral Fellow
Nishant Behar	GGV	Asst prof
Shruti Kanugo	SCSIT, DAVV	Student
sreshta kosaraju	KL University	student
Kirti Digholkar	PICT, Pune	Faculty
SHREYAS ARORA	School of Engineering, Jawaharlal Nehru University, New Delhi	Student
Rachna R.Chhajed	PICT	Faculty
Satvik Yandapalli	NIT WARANGAL	Student
Dr.Thirunavukkarasu K.	Galgotias University	Associate Professor
Dr. Sasidhar B	Dept of CSE, School of Engineering, Nalla Narasimha Reddy Group of Institutions, Hyderabad, India	Faculty

ATTENDANCE OF PARTICIPANTS

vaidyanathan somanathan	university deteement of information technology university of mumbai	Student
Hemanth Uppala	university deteement of information technology university of mumbai	Assistant Professor
Vivek Kumar Chauhan	Dayananda Sagar College	Research Scholar
Atharva waranashiwar	C.C.S University,Meerut	Student
Dr. Mohd. Abdul Muqteet	Pune Vidyarthi Griha's College of Engineering & Technology, Pune	ASSISTANT PROFESSOR
SHIVA SHREE	Muffakham Jah College of Engineering and Technology, Hyderabad	Research scholar
Smitha A	DY Patil College of Engineering, Akurdi, Pune	Faculty
MADHURI KUMARI	National institute of technology	Faculty
HARIHARAN RAJADURAI	Amity School of Engineering and Technology, Amity University, Noida	Faculty
MENAGA DHANASEKARAN	Vellore Institute of Technology,Vellore	Assistant Professor
Vikash Vardhan	VELLORE INSTITUTE OF TECHNOLOGY,VELLORE	Student
N Rajathi	Tata Consultancy Services Ltd	Assistant Professor
Vaidehi Vivek Sovani	Kumaraguru College of Technology	Asst. Professor
Dr Ghali Venkata Subbarao	PVG COET	Faculty
SUMAN	Koneru Lakshmaiah Education Foundation	Faculty
Deepti Pandey	Baba Bheemrao Ambedkar University Lucknow (BBAU)	Faculty
prakash babu yandrapati	Umanatath Singh institute of engineering and technology, VBSPU JAUNPUR	Assistant Professor
Aman Asati	NIT, Trichy	Student(Research Scholar)
Jyoti Joshi	Gyan Ganga Institute of Technology and Sciences	Faculty
RAVINDARA BHATT	NPSEI Pithoragarh (formerly Seemant Institute of Technology)	Others
Hari Singh	Jaypee University of Information Technology, India	FACULTY
Bhawna jyoti	Jaypee University of Information Technology, Wagnaghat, Solan, Himachal Pradesh	Faculty
Tanishq Gupta	Himachal Pradesh University,Shimla.	Faculty
Dr.C.Prema	Jaypee University of Information Technology(JUIT)	Student
Prakash Tripathi	Jayaraj Annapackiam CSI College of Engineering	ASSISTANT PROFESSOR
SALMA MOHD SHAFI	BHILAI MAHILA MAHAVIDHYALAYA	HEAD & ASSTT PROFESSOR

ATTENDANCE OF PARTICIPANTS

Akhilesh Kumar Shrivastava	Guru Ghasidas Vishwavidyalaya Bilaspur, Chhattisgarh	Faculty
Sugena G.	Anna University, BIT campus	Student
Amit Kumar Dewanganon	Guru Ghasidas Vishwavidyalaya Bilaspur, Chhattisgarh	Faculty
Mohammad gauhar	IFTM UNIVERSITY, MORADABAD	scholar
BISAHU RAM SAHU	DR.C.V.RAMAN UNIVERSITY, KOTA, BILASPUR (C.G)	FACULTY
RAVI SHANKAR KUMAR	NIFFT, HATIA RANCHI	STUDENT
BIKRAM BIKASH DAS	BBCI, GUWAHATI, ASSAM	OTHER- IT NETWORK ENGINEER
Dr. Surbhi Agarwal	National Institute of Food Technology Entrepreneurship and Management	Research scholar

CONCLUSION

In conclusion, the "Data Science for All" Faculty Development Program, boasting 58 enthusiastic participants, has been an unequivocal triumph. The collaborative synergy among educators has not only cultivated a rich exchange of ideas but also laid the groundwork for a more inclusive and accessible approach to data science education. Armed with newfound knowledge and practical insights, these 58 educators are poised to catalyze transformative changes in their academic spheres. The success of this FDP not only marks a milestone in advancing data science education but also sets the stage for a broader, more diverse, and inclusive future in which data science truly becomes accessible to all.