

Swami Keshvanand Institute of Technology, Management &  
Gramothan, Jaipur  
Department of Mechanical Engineering  
2019-20

**Title of Event: TEQIP III Sponsored FDP on “Data Analytics for Engineers and Researchers”**

**Objectives/Scope:**

Data analytics is an integral part of academics and industrial world. It plays an important role in growth of the business organizations and progress of a nation. In order to carry out research in an effective way, the engineers and researchers need to be trained in data analytics. This program will give participants a comprehensive understanding of planning and conducting scientific experiments for collecting data, and analyzing the data to have fruitful conclusions. The program has been designed to be generic in nature for satisfying the needs of students and faculty pursuing their M. Tech and Ph.D.s from academic institutions and industry personnel carrying out research in any field.

**About the Event:**

The FDP was started with lightening of lamp by Prof. S. L. Surana, Director (Academics), Prof. C. B. Gupta (Guest Speaker from BITS Pilani) and Prof. N.C. Bhandari (HOD, ME). The FDP team consists of Prof. Dharendra Mathur as RTU (ATU)-TEQIP III coordinator, Dr. Aditya Mani Mishra as RTU Event coordinator, Dr. Om Ji Shukla and Dr. Manoj Kumar Sain as FDP Convener along with organizing team members which are Mr. Vinay Singh Marwal, Mr. Amit Kumar Bansal, Mr. Praveen Saraswat, Mr. Sumit Jhalani, Mr. Vishnu Jangid. Total 70 participants from different streams had attended this FDP. Participants included PG student, Ph.D. scholars and faculty members of SKIT Jaipur and other RTU affiliated colleges. A pool of experts from MNIT, BITS, IIT Delhi, Teri have taken lecture sessions on various topics such as Role of data analytics in research, MCDM techniques, Data pre-processing techniques, Probability distribution, Hypothesis testing, Design of Experiments, Taguchi method, Analysis of Variance, Regression, Factor analysis, Principal component analysis, Cluster analysis and Structural equation modeling. The FDP was concluded by valedictory session and certificate distribution to all the participants by Prof. S. L. Surana, Director (Academics) and Prof. N. K. Banthiya (Head, PAQIC).



## Programme

Session times	8:45 AM-10:45 AM		11:00 AM-01:00 PM		02.00 PM – 04.00 PM	
<b>Day 1</b> 26/08/19 Monday	<b>Registration</b> (8:45-10:00 AM) <b>Inauguration</b> (10:00-10:30AM)	Tea	<b>Introduction to Data Analytics</b> <i>Prof. C. B. Gupta</i> (BITS Pilani)	Lunch	<b>Probability Distribution</b> <i>Dr. GunjanSoni</i> (MNITJaipur)	Tea
<b>Day 2</b> 27/08/19 Tuesday	<b>Hypothesis Testing</b> <i>Dr. GunjanSoni</i> (MNITJaipur)	Tea	<b>MCDM</b> <i>Dr. Om JiShukla</i> (SKITJaipur)	Lunch	<b>ANOVA</b> <i>Prof. B. K. Rout</i> (BITS Pilani)	Tea
<b>Day 3</b> 28/08/19 Wednesday	<b>Design of Experiments</b> <i>Prof. B. K. Rout</i> (BITS Pilani)	Tea	<b>Factor Analysis</b> <i>Dr. Deepak Verma</i> (MNITJaipur)	Lunch	<b>Regression</b> <i>Prof. M L Mittal</i> (MNITJaipur)	Tea
<b>Day 4</b> 29/08/19 Thursday	<b>Cluster Analysis</b> <i>Dr. Deepak Verma</i> (MNITJaipur)	Tea	<b>Research Applications of Data Analytics</b> <i>Dr. NomeshBolia</i> (IITD)	Lunch	<b>Data preprocessing techniques</b> <i>Prof. Rajesh Kumar</i> (MNITJaipur)	Tea
<b>Day 5</b> 30/08/19 Friday	<b>Principal component analysis</b> <i>Dr. ShashankVyas</i> (TERI, New Delhi)	Tea	<b>Structural Equation Modeling</b> <i>Dr. Divesh Kumar</i> (MNITJaipur)	Lunch	<b>Valedictory</b>	Tea



## FDP COMMITTEE

### CHIEF PATRON

Prof. R. A. Gupta  
Honorable Vice-Chancellor, RTU

### PATRON

Sh. Raja Ram Meel, Patron, SKIT  
Sh. Surja Ram Meel, Chairman, SKIT

### ADVISORS

Sh. Jaipal Meel, Director, SKIT  
Prof. (Dr.) S.L. Surana, Director (Academics),  
Mrs. Rachna Meel, Registrar, SKIT  
Prof. (Dr.) Ramesh Kumar Pachar,  
Principal, SKIT

### RTU (ATU) TEQIP-III COORDINATOR

Prof. (Dr.) Dharendra Mathur

### RTU EVENT COORDINATOR

Dr. Aditya Mani Mishra (Nodal officer)

### HOST INSTITUTE COORDINATOR

Dr. Mukesh Kumar Gupta, Prof. (CSE)

### ADVISORS FDP

Prof. (Dr.) N. C. Bhandari, HOD (ME)  
Prof. (Dr.) N. K. Banthiya, Head (PAQIC)

### CONVENER FDP

Dr. Om Ji Shukla, Associate Prof. (M.E.)  
Dr. Manoj Kumar Sain, Associate Prof. (M.E.)

### RTU (ATU) TEQIP-III COMMITTEE

Prof. D. K. Sambariya (Nodal Officer  
Procurement)  
Dr. S. D. Purohit (Nodal Officer Finance)  
Dr. Irum Alvi (Conference)  
Mr. Santosh Sharma (Expert Lecture)  
Mr. Anshul Bansal (GATE & Induction)  
Mr. Dinesh Kumar (Workshop)

## INSTITUTE ORGANIZING COMMITTEE

Mr. Vinay Singh Marwal, Associate Prof.(M.E.)  
Mr. Amit Kumar Bansal, Associate Prof. (M.E.)  
Mr. Praveen Saraswat, Assistant Prof. (M.E.)  
Mr. Sumit Jhalani, Assistant Prof. (M.E.)  
Mr. Vishnu Jangid, Assistant Prof. (M.E.)

### SCOPE OF FDP

Data analytics is an integral part of academics and industrial world. It plays an important role in growth of the business organizations and progress of a nation. In order to carry out research in an effective way, the engineers and researchers need to be trained in data analytics. This program will give participants a comprehensive understanding of planning and conducting scientific experiments for collecting data, and analyzing the data to have fruitful conclusions. The program has been designed to be generic in nature for satisfying the needs of students and faculty pursuing their M. Tech and Ph.D.s from academic institutions and industry personnel carrying out research in any field.

### CONTENT OF THE FDP

- > Role of data analytics in research
- > Data pre-processing techniques
- > Descriptive and Inferential statistics
- > Probability distributions
- > Sampling distributions
- > Hypothesis testing
- > Analysis of Variance
- > Regression
- > Logistic regression
- > Design of Experiments
- > Taguchi method
- > Multi-variate analysis
- > Factor analysis
- > Cluster analysis
- > Conjoint analysis
- > Hands-on-Sessions.



### TEQIP-III SPONSORED

One Week FDP

On

**"Data Analytics for Engineers and  
Researchers"**

(August 26-30, 2019)



Organized by

Rajasthan Technical University, Kota

&

Swami Keshvanand Institute of  
Technology, Management & Gramothan,  
Jaipur



Venue

Department of Mechanical Engineering,  
Swami Keshvanand Institute of  
Technology, Management & Gramothan,  
Jaipur - 302017

Email: [teqip.skitt@gmail.com](mailto:teqip.skitt@gmail.com)

Web: [www.skitt.ac.in](http://www.skitt.ac.in)

## ABOUT TEQIP-III

The Project, Third phase of Technical Education Quality Improvement program (referred to as TEQIP-III) is fully integrated with the twelfth five-year plan objectives for Technical Education as a key Component for a improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category State and Support to Strengthen few affiliated technical universities to improve their policy, academic and management practices.

### RTU, KOTA

Rajasthan Technical University (RTU) is located at Kota in the state of Rajasthan. It was established in 2006 by the Government of Rajasthan. The university currently affiliated about 129 engineering colleges, 04 B. Arch, 41 MCA Colleges, 95 MBA Colleges, 44 M. Tech. Colleges and 03 Hotel Management and Catering Institute. The University aims to provide quality technical education which may help Rajasthan in its technical development and will boost technical environment in the country.

### ABOUT SKIT

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) is Ranked No. 1 Engineering College in Rajasthan declared by Rajasthan Technical University (RTU), Kota. SKIT is a selective comprehensive institution offering undergraduate and postgraduate programmes in Engineering and Management. The institute was established in the year 2000 by a team of committed professionals and academicians. During all the past years SKIT has emerged as a premier centre of technical education not only in Rajasthan but also in northern India which has been realized through efficient and dedicated faculty members, innovative teaching learning methods, state of the art infrastructures and core

value of discipline. The various undergraduate programmes of the institute are accredited by the National Board of Accreditation (NBA).

### DEPARTMENT OF ME

The department started academic activities in the year 2003-04 with the admission of its first batch of under-graduates. The Department offers B.Tech in Mechanical Engg. and M.Tech in Production Engg. and Renewable Energy Technology courses. The department has modern laboratories developed and designed from the perspective of the latest requirements of academia. Consistent pursuit of excellence by the department is clearly reflected in the fact that the department has been accredited by National Board of Accreditation (NBA) (India). The department has developed its facilities in such a way that students can practice self-study and undertake other curricular activities. Special attention is paid for developing positive attitudes, leadership, group working and safety consciousness in the students.

### COURSE FEE

- > No fee for faculties and PG students from RTU Affiliated Institutes.
- > Rs.1000/- for PG students from Non-RTU Affiliated Institutes.
- > Rs.1500/- for faculties from Non-RTU Affiliated Institutes.
- > Rs.2500/- for participants from Industry.

### EXPERTS

The lectures will be delivered by a pool of experts on the subject from reputed institutes like IIT, NIT, BITS Pilani and TERI.

### ELIGIBILITY OF PARTICIPANT

The FDP is interdisciplinary and it is open to faculty members engaged in Engineering and Science disciplines; Ph. D. and PG students of Engineering institutes / Science colleges.

## REGISTRATION FORM

TEQIP-III Sponsored One Week FDP on

**"Data Analytics for Engineers and  
Researchers"**

(August 26-30, 2019)

Name: Mr./Ms./Dr. ....

Designation: .....

Institute Name: .....

Affiliated to RTU: ..... (Yes/No)

Mobile No.: .....

E-Mail Id: .....

Seal & Signature of head of the Institute

Note: Submit the Registration Form through online process via:

<https://forms.gle/ZDTEXAZHRHeR3fbR6>

The last date of registration for this FDP is August 20, 2019. Seats are limited, so the participants will be selected on first come first served basis.

## CONTACT US

Dr. Om Ji Shukla  
Associate Professor, Department of ME,  
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Email: [om.shukla@skit.ac.in](mailto:om.shukla@skit.ac.in)

Dr. Manoj Kumar Sain  
Associate Professor, Department of ME,  
Mobile: 9929289630  
Email: [mksain1455@gmail.com](mailto:mksain1455@gmail.com)



TOTAL

PARTICIPANTS =

78

TEQIP III-RTU Sponsored FDP on "Data Analytics for Engineers and Researchers" at SKIT Jaipur (August 26-30, 2019)

		Attendance Sheet				
Sr. No.	Name	26/08/2019	27/08/2019	28/08/2019	29/08/2019	30/08/2019
1	Chandra Mohan Kumar	<i>Ch</i>	<i>Ch</i>	<i>Ch</i>	<i>Ch</i>	<i>Ch</i>
2	Prakash Bharadwaj	<i>Prakash</i>	<i>Prakash</i>	<i>Prakash</i>	<i>Prakash</i>	<i>Prakash</i>
3	Dr. Vikash Gautam	<i>Vikash</i>	<i>Vikash</i>	<i>Vikash</i>	<i>Vikash</i>	<i>Vikash</i>
4	Pramod Jain	<del><i>PJ</i></del>	<del><i>PJ</i></del>	<del><i>PJ</i></del>	<del><i>PJ</i></del>	<del><i>PJ</i></del>
5	Brij Mohan Sharma	<i>BS</i>	<i>BS</i>	<i>BS</i>	<i>BS</i>	<i>BS</i>
6	Chandan Kumar	<i>Ch</i>	<i>Ch</i>	<i>Ch</i>	<i>Ch</i>	<i>Ch</i>
7	Ankit Agarwal	<i>An</i>	<i>An</i>	<i>An</i>	<i>An</i>	<i>An</i>
8	Prem Singh	<i>Prem</i>	<i>Prem</i>	<i>Prem</i>	<i>Prem</i>	<i>Prem</i>
9	Dr. Deepak Kumar	<i>DK</i>	<i>DK</i>	<i>DK</i>	<i>DK</i>	<i>DK</i>
10	Sunil Kumar	<i>Sunil</i>	<i>Sunil</i>	<i>Sunil</i>	<i>Sunil</i>	<i>Sunil</i>
11	Arun Beniwal	<i>AB</i>	<i>AB</i>	<i>AB</i>	<i>AB</i>	<i>AB</i>
12	Madhukar Kumar	<i>MD</i>	<i>MD</i>	<i>MD</i>	<i>MD</i>	<i>MD</i>
13	Amit Kumar Bansal	<i>AM</i>	<i>AM</i>	<i>AM</i>	<i>AM</i>	<i>AM</i>
14	Dr. Achin Srivastav	<i>Achin</i>	<i>Achin</i>	<i>Achin</i>	<i>Achin</i>	<i>Achin</i>
15	Dharmendra Hariyani	<i>DH</i>	<i>DH</i>	<i>DH</i>	<i>DH</i>	<i>DH</i>
16	Manoj Kumar	<i>Manoj</i>	<i>Manoj</i>	<i>Manoj</i>	<i>Manoj</i>	<i>Manoj</i>
17	Birendra kumar Pandey	<i>Birendra</i>	<i>Birendra</i>	<i>Birendra</i>	<i>Birendra</i>	<i>Birendra</i>
18	Dr. Man Mohan Siddh	<i>Man Mohan</i>	<i>Man Mohan</i>	<i>Man Mohan</i>	<i>Man Mohan</i>	<i>Man Mohan</i>
19	Vinay Singh Marwal	<i>Vinay</i>	<i>Vinay</i>	<i>Vinay</i>	<i>Vinay</i>	<i>Vinay</i>
20	Sudesh Garg	<i>Sudesh</i>	<i>Sudesh</i>	<i>Sudesh</i>	<i>Sudesh</i>	<i>Sudesh</i>
21	Ankur Kumar	<i>Ankur</i>	<i>Ankur</i>	<i>Ankur</i>	<i>Ankur</i>	<i>Ankur</i>
22	Ashwini Kumar	<i>Ashwini</i>	<i>Ashwini</i>	<i>Ashwini</i>	<i>Ashwini</i>	<i>Ashwini</i>
23	Jitendra K Sen	<i>Jitendra</i>	<i>Jitendra</i>	<i>Jitendra</i>	<i>Jitendra</i>	<i>Jitendra</i>
24	Madhur Sain	<i>Madhur</i>	<i>Madhur</i>	<i>Madhur</i>	<i>Madhur</i>	<i>Madhur</i>
25	Arjun ram prajapat	<i>Arjun</i>	<i>Arjun</i>	<i>Arjun</i>	<i>Arjun</i>	<i>Arjun</i>
26	Jagdish Bhadu	<i>Jagdish</i>	<i>Jagdish</i>	<i>Jagdish</i>	<i>Jagdish</i>	<i>Jagdish</i>
27	Lalit Kumar Sharma	<i>Lalit</i>	<i>Lalit</i>	<i>Lalit</i>	<i>Lalit</i>	<i>Lalit</i>

*Dr. Om Ji Shukla*

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 Jagatpura, Jaipur-302025

**TEQIP III-RTU Sponsored FDP on "Data Analytics for Engineers and Researchers" at SKIT Jaipur (August 26-30, 2019)**

Attendance Sheet						
Sr. No.	Name	26/08/2019	27/08/2019	28/08/2019	29/08/2019	30/08/2019
28	Md Babul Hasan		Absent			
29	Rohit yadav		Absent			
30	Alok Bihari Singh	Ans	Ans	Ans	Ans	Ans
31	Sumita		Absent			
32	Giriraj mitharwal	lpaj	lpaj	lpaj	lpaj	lpaj
33	Sanjay Singh		absent			
34	Manu Augustine	<del>Ans</del>	<del>Ans</del>	<del>Ans</del>	<del>Ans</del>	<del>Ans</del>
35	Nitin Goyal	(W)	(W)	(W)	(W)	(W)
36	Naveen Kumar Sain	Wain	Wain	Wain	Wain	Wain
37	naveen jain	Naveen	Naveen	Naveen	Naveen	Naveen
38	Brij Mehan Sharma		absent			
39	Dinesh Kumar Sharma	<del>Pill</del>	<del>Pill</del>	<del>Pill</del>	<del>Pill</del>	<del>Pill</del>
40	Kamal Singh		Absent			
41	Yogendra Gupta		Absent			
42	Kajal Mathur	KA	KA	KA	KA	KA
43	Dr. Sunita Gupta	Sunita	Sunita	Sunita	Sunita	Sunita
44	Deepak yadav		Absent			
45	Neha Mathur	(Neha)	(Neha)	(Neha)	(Neha)	(Neha)
46	Sushant Kumar		Absent			
47	Nidhi Srivastav	Nidhi	Nidhi	Nidhi	Nidhi	Nidhi
48	Rajesh Rajaan		Absent			
49	Anirudh Mathur	AM	AM	AM	AM	AM
50	Jayanti Goyal		absent			
51	Neeraj Garg	<del>Neeraj</del>	<del>Neeraj</del>	<del>Neeraj</del>	<del>Neeraj</del>	<del>Neeraj</del>
52	Meera Indracanti		Absent			
53	Vijeta Khicha	Khicha	Khicha	Khicha	Khicha	Khicha
54	Sandeep Kumar Bhaskar	Sandeep	Sandeep	Sandeep	Sandeep	Sandeep
55	Sanjay Bairwa	Sanjay Bairwa	Sanjay Bairwa	Sanjay Bairwa	Sanjay Bairwa	Sanjay Bairwa
56	Shanu Tripathi	Shanu	Shanu	Shanu	Shanu	Shanu
57	Dr. Nilam Choudhary		Absent			
58	Ankit Vijayvargiya	Ankit	Ankit	Ankit	Ankit	Ankit



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Sr. No.	Name	26/08/2019	27/08/2019	28/08/2019	29/08/2019	30/08/2019
59	Deepa Modi	Deepa	Deepa	Deepa	Deepa	Deepa
60	Dr. Neha Janu	Neha	Neha	Neha	Neha	Neha
61	Felix Arokiya Raj		Absent			
62	Dr. Rita Jain		Absent			
63	Nisha Payal		Absent			
64	Praveen Saraswat	Praveen	Praveen	Praveen	Praveen	Praveen
65	Dheeraj Joshi	Dheeraj	Dheeraj	Dheeraj	Dheeraj	Dheeraj
66	Ruchika Khandelwal	Ruchika	Ruchika	Ruchika	Ruchika	Ruchika
67	Sarvesh Kumar Srivastava	S. Kumar	S. Kumar	S. Kumar	S. Kumar	S. Kumar
68	Vijay Shankar Sharma		Absent			
69	Niketa Sharma		Absent			
70	Trivendra Kumar Sharma	Trivendra	Trivendra	Trivendra	Trivendra	Trivendra
71	Lalit Kumar Gupta	Lalit	Lalit	Lalit	Lalit	Lalit
72	Vishal Mali		Absent			
73	Dr. Rishi Pareek	Rishi	Rishi	Rishi	Rishi	Rishi
74	Ajay Kumar Dhanopia	Ajay	Ajay	Ajay	Ajay	Ajay
75	Monu Gupta	Monu	Monu	Monu	Monu	Monu
76	Nikhil Sharma	Nikhil	Nikhil	Nikhil	Nikhil	Nikhil
77	Deepak Sharma	Deepak	Deepak	Deepak	Deepak	Deepak
78	Kailash Soni	Kailash	Kailash	Kailash	Kailash	Kailash
79	Dr. Om Ji Shukla	Om	Om	Om	Om	Om
80	Dr. Manoj Kumar Sain	Manoj	Manoj	Manoj	Manoj	Manoj
81	Vishnu Jangid	Vishnu	Vishnu	Vishnu	Vishnu	Vishnu
82	Dr. Ashish Nayyar	Ashish	Ashish	Ashish	Ashish	Ashish
83	Suresh Choudhary	Suresh	Suresh	Suresh	Suresh	Suresh
84	Jitendra Kumar	Jitendra	Jitendra	Jitendra	Jitendra	Jitendra
85	Sumit Jhalani	Sumit	Sumit	Sumit	Sumit	Sumit
86	Raju Malani		Absent			

**PRINCIPAL**  
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Sr. No.	Name	Attendance Sheet				
		26/08/2019	27/08/2019	28/08/2019	29/08/2019	30/08/2019
87	Devendra Dhoulpuriya	Devendra	Devendra	Devendra	Devendra	Devendra
88	Kunal Advani	Kunal	Kunal	Kunal	Kunal	Kunal
89	Mohit Tiwari	Mohit	Mohit	Mohit	Mohit	Mohit
90	Harshit Tiwari	Harshit	Harshit	Harshit	Harshit	Harshit
91	Nancy		Absent			
92	<del>Dr. Anish N...</del>		Absent			
93	Lavish Jain	Lavish	Lavish	Lavish	Lavish	Lavish
94	Parth sharma					
95						
96						
97						
98						

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