



**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY**  
**WAKNAGHAT, P.O. – WAKNAGHAT,**  
**TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.)**  
**PIN – 173234 (INDIA) Phone Number- +91-1792-257999**  
 (Established by H.P. State Legislature vide Act No. 14 of 2002)



## Faculty Development Program Report

**Topic:** Data Science in Financial Statistics & Predictive Analysis with R.

### Organized by

Department of Mathematics, Jaypee University of Information Technology, Waknaghat, Solan (HP).

**Dates:** 22-27 December 2024.

**Venue:** Online via G-meet: <https://meet.google.com/ntw-zpht-cfa?hs=122&authuser=0>

### Introduction:

The aim of this one-week online FDP is to introduce participants to important topics in data science and R programming. The convener of the FDP was Prof Rakesh K Bajaj (HoD Maths) and the FDP was coordinated by Dr. Pradeep Kumar Pandey and Dr. Saurabh Srivastava.

### Objective:

This FDP was intended for research scholars, faculty at universities and research institutions. The main objectives were to enhance the teaching and research skills.

### Program Schedule:

Date	Program	Time	Program Description
22-12-2024 (Sunday)	Inaugural Ceremony	2:15PM-2:40 PM	Inauguration & Welcome Note
	Inaugural Lecture	2:40 PM-4:00 PM	Prof. C K Jaggi (DU)
	Vote of Thanks	4:00 PM-4:05 PM	Dr. Saurabh Srivastava (Coordinator)
	FDP Session	4:15PM-5:15PM	Dr. Saurabh Srivastava (JUIT)
23-12-2024 (Monday)	Session-1	2:00PM-3:30PM	Dr. Nitin Gupta (IIT Kharagpur)
		3:30PM-3:45PM	Break
	Session-2	3:45PM-5:15PM	Dr. Nitin Gupta (IIT Kharagpur)
24-12-2024 (Tuesday)	Session-1	2:00PM-3:30PM	Dr. Nitin Gupta (IIT Kharagpur)
		3:30PM-3:45PM	Break
	Session-2	3:45PM-5:15PM	Dr. Nitin Gupta (IIT Kharagpur)
25-12-2024 (Wednesday)	Session-1	2:00PM-3:30PM	Prof. Gaurav Garg (IIM Lucknow)
		3:30PM-3:45PM	Break
	Session-2	3:45PM-5:15PM	Dr. Saurabh Srivastava (JUIT)
26-12-2024	Session-1	2:00PM-3:30PM	Prof. Gaurav Garg



<b>(Thursday)</b>			(IIM Lucknow)
		3:30PM-3:45PM	Break
	Session-2	3:45PM-5:15PM	Prof. Gaurav Garg (IIM Lucknow)
<b>27-12-2024 (Friday)</b>	Session-1	2:00PM-3:30PM	Prof. Gaurav Garg (IIM Lucknow)
		3:30PM-3:45PM	Break
	Session-2	3:45PM-5:15PM	Dr. Saurabh Srivastava (JUIT)
	Vote of Thanks	5:15PM-05:20PM	Coordinators of FDP

**Topics Covered:**

Following topics were included in the FDP:

- Getting Started with R and Essentials of the R Language.
- Data Input and Visualization
- Stochastic process, discrete time Markov Chain.
- Birth and death process.
- Application in queueing theory.
- Brownian motion.

**Participant Details:**

Following participants across the country participated in this FDP.

S.N.	Name of the participant	Category of the participant	Affiliation
1	Neha Sharma	Research Scholar/PG Student	Jaypee University of Information Technology Waknaghat (Department of Computer Science)
2	Dr. Jitendraa Vashistt	Faculty	Jaypee University of Information Technology
3	Dr. Pardeep Garg	Faculty	Jaypee University of Information Technology
4	Pankaj Thakur	Research Scholar/PG Student	Jaypee University of Information Technology Waknaghat
5	Dr. Bilal Khan	Faculty	Jaypee University of Information Technology
6	Pradyumn	Research Scholar/PG Student	Jaypee University of Information Technology
7	Rajiv Bahl	Research Scholar/PG Student	Tax Policy Research Unit, Ministry of Finance
8	Sonali	Research Scholar/PG Student	Jaypee University of Information Technology



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9	Diksha	Research Scholar/PG Student	Defence Institute of Advanced Technology (DRDO), Pune Maharashtra
10	Bhavna Mahant	Research Scholar/PG Student	Jaypee University for Information Technology
11	Sunaina Mahant	Research Scholar/PG Student	Jaypee University of Information Technology
12	Suyash Parkash Chauhan	Research Scholar/PG Student	Jaypee University of Information Technology
13	Prabhjot Kaur	Faculty	PCTE Group of Institutes, Baddowal, Ludhiana.
14	Dr Mahima Poonia Singh	Faculty	ABES, Ghaziabad
15	Sujata Kalsi	Research Scholar/PG Student	Shoolini University of Biotechnology and Management Sciences
16	Dr. Aman Sharma	Faculty	Jaypee University of Information Technology
17	Mr. Kaushal Kumar	Faculty	Jaypee University of Information Technology
18	Muskan Kapoor	Research Scholar/PG Student	Jaypee University of Information Technology
19	Monika	Research Scholar/PG Student	Jaypee University of Information Technology
20	Jyoti	Research Scholar/PG Student	Jaypee University of Information Technology
21	Kirti	Faculty	Chandigarh University
22	Francy	Research Scholar/PG Student	Delhi Technological University
23	Aashish Jain	Industry Participant	IT Industry
24	Dr. Priti Sharma	Faculty	Chandigarh Group of Colleges Landran, Mohali
25	Amit Sharma	Research Scholar/PG Student	Delhi Technological University
26	Anchal Jaiswal	Research Scholar/PG Student	Delhi Technological University



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27	Anjali	Research Scholar/PG Student	Delhi Technological University
28	Supriya Sharma	Research Scholar/PG Student	Jaypee University of Information Technology
29	Sonu Rani	Faculty	Government College for Girls Kairu (Bhiwani)
30	Rachna Sharma	Research Scholar/PG Student	Delhi Technological University
31	Dr. Dipneet Saini	Faculty	Gian Jyoti Institute of Management and Technology
32	Anshu Choudhary	Research Scholar/PG Student	Delhi Technological University
33	Bishal Tiwari	Research Scholar/PG Student	Jaypee University of Information Technology
34	Sakshi Sharma	Research Scholar/PG Student	Jaypee University of Information Technology
35	Anupriya Kaur	Faculty	Jaypee University of Information Technology
36	Nishant Behar	Faculty	Guru Ghasidas University
37	Dr. Smriti Bansal	Faculty	National Institute of Technology, Hamirpur
38	Yogesh Kumar Prajapaty	Faculty	National Institute of Technology, Hamirpur
39	Dr. Amar Pandey	Faculty	Guru Ghasidas Vishwavidyalaya, Bilaspur
40	Surjeet	Faculty	National Institute of Technology Hamirpur
41	Dr. Seema Agarwal	Faculty	SRMIST, Delhi-NCR Campus, Ghaziabad
42	Dr. Sohan Lal Tyagi	Faculty	SRMIST Delhi NCR Campus Modinagar, Ghaziabad
43	Dr. Sandhya Rani Verma	Faculty	SRMIST, Delhi NCR Campus, Modinagar, Ghaziabad
44	Dr. Shikha Bansal	Faculty	SRMIST, Delhi NCR Campus, Modinagar, Ghaziabad
45	Mohammed Abid	Research Scholar/PG Student	SRMIST, Delhi NCR Campus, Modinagar, Ghaziabad
46	Dr. Abhishek Chaudhary	Faculty	Jaypee University of Information Technology



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47	Manmeet Kaur	Faculty	Chandigarh Group of Colleges, Jhanjeri, Punjab
48	Shilpa kaushal	Research Scholar/PG Student	Jaypee University of Information Technology
49	Shiv Kumar Gupta	Faculty	Jaypee University of Information Technology
50	Manisha Thakur	Research Scholar/PG Student	Jaypee University of Information Technology
51	Sweta Singh	Research Scholar/PG Student	Jaypee University of Information Technology
52	Prof. (Dr.) Anil Kant	Faculty	Jaypee University of Information Technology
53	Alok Kumar	Faculty	Jaypee University of Information and Technology
54	Ritesh Gupta	Research Scholar/PG Student	Jaypee University of Information Technology
55	Mandeep Singh	Faculty	Jaypee University of Information Technology
56	Munish Sood	Faculty	Jaypee University of Information Technology
57	Dr. Nitin Gupta	Resource Person	IIT Kharagpur
58	Prof. Gaurav Garg	Resource Person	IIM Lucknow (Noida Campus)
59	Dr. Pradeep Kumar Pandey	Coordinator	Jaypee University of Information Technology
60	Dr. Saurabh Srivastava	Coordinator/Resource Person	Jaypee University of Information Technology
61	Suyash Parkash Chauhan	Research Scholar/PG Student	Jaypee University of Information Technology
62	Ritesh Gupta	Research Scholar/PG Student	Jaypee University of Information Technology
63	Prof. Rakesh Kumar Bajaj	Convenor	Jaypee University of Information Technology

#### **Feedback and Suggestions:**

Participants were very happy to participate in this FDP, and gave positive feedback and suggestions.



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**Conclusion:**

The one-week online FDP on “Data Science in Financial Statistics & Predictive Analysis with R” was well received by the participants. It has a great impact on learning outcomes of the participants. In summary the event was a great success.

The screenshot shows a Zoom meeting grid with a central slide titled "The Multiple Linear Regression Model". The slide content is as follows:

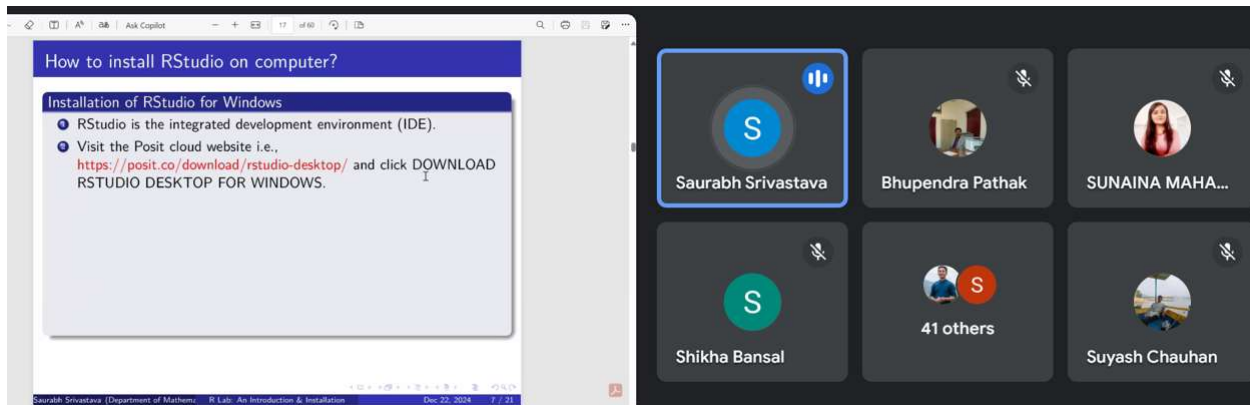
- The Multiple Linear Regression Model**
- In simple linear regression analysis, we fit linear relation between one dependent variable (Y) and one independent variable (X).
- In multiple linear regression analysis, we fit linear relation between one dependent variable (Y) and Many (more than one) independent variable ( $X_1, X_2, \dots$ ).
- For Example:**
  - Cost → Labor cost, Electricity cost, Raw material cost
  - Salary → Education, Experience
  - Sales → Cost, Advertising Expenditure
- The multiple linear regression model with 3 X variables can be written as
- Predicted  $Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3$

The meeting grid includes participants such as R.K. SHARMA, FDP MATHS 2024, Rakesh Kumar, R S Raja Durai, Saurabh Srivast..., Chandra K Jaggi, Kirti Sharma, ancy Singla, SUJATA KALSI, Aman Sharma, Prof. Gaurav Garg, Dr. Smriti Bansal, Rachna Sharma, prabh jot, Anshu Choudhary, Mandeep Singh, Saurabh Srivasta..., 28 others, and FDP MATHS 2024.

The continuation of the Zoom meeting grid shows participants including Nitin Gupta, Tanuj Kumar, Anil Kant Thakur, Aman Sharma, NEHA SHARMA, Vipin kumar Ver..., Dr. Smriti Bansal, BHAVNA MAHA..., Pradeep K Pand..., MONIKA PATHAK, and Suyash Chauhan.



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**Coordinator's:**

Dr. Pradeep Kumar Pandey  
Dr. Saurabh Srivastava

**Convener**

Prof. Rakesh Kumar Bajaj