

A
Report on
FDP on
**“Research Methods and Data
Analysis Using SPSS”**

Organized by

**Department of Management Studies
Swami Keshvanand Institute of
Technology, Management &
Gramothan, Jaipur**

Submitted by:

Dr. Atul Gupta

Dy. Head & Associate Professor, DMS

Approval of the Event from the Management

SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN

DEPARTMENT OF MANAGEMENT STUDIES

4th March, 2024

To,
The Director (Academics)
SKIT, Jaipur.

Sir,

Reg: FDP on “Research Methods and Data Analysis Using SPSS” on 19th to 23rd March 2024.

This is to seek your approval to organize a Five day FDP on the theme “Research Methods and Data Analysis Using SPSS” on 19th to 23rd March 2024.

The FDP aims to help researchers and faculty members to understand the fundamental principles of research & statistics and their application in data analysis, interpretation, and use of SPSS. The FDP will be conducted through offline mode with limited seats for effective hand-on-practice.

The learning objectives of the FDP are:

- To provide participants a platform for discussion on the statistical requirements of research
- To train and inculcate participants the skills for Data Analytics using SPSS.
- To train participants through practical sessions on data handling & analysis
- To discuss with participants on the interpretations of results and presentation
- To analyze data using basic and advance statistical techniques in SPSS


We will share further details of the programme as soon as schedule is finalized. We request you to approve the programme in principle.



Dr. Atul Gupta & Dr. Ajay Verma
FDP Coordinator

Approved

S. L. Swana
4/3/24


4/3/24



**Swami Keshvanand Institute of Technology,
Management & Gramathan
Department of Management Studies**

Faculty Development Program on

**“Research Methods and Data Analysis Using SPSS”
March 18th – 22nd, 2023**

Report of the FDP

Five day Faculty Development Programme on “Research Methods and Data Analysis Using SPSS” was organized by Department of Management Studies & Department of Mechanical Engineering, SKIT from 18th March, 2024 to 22nd March, 2024.

The holy lamp was lit and Goddess Saraswati was beckoned to bless the occasion. The FDP started with a welcome note by Dr. Ona Ladiwal, HOD-DMS. She welcomed all the participants of the FDP. She mentioned that this FDP provide participants with the opportunity to enhance their skills in research methods and data analysis. Followed to this Dr. Dheeraj Joshi, HOD-ME addressed the participants related to the importance of the SPPS for the research work. He said that SPSS is a widely used software for statistical analysis in various fields such as social sciences, business, and healthcare. Proficiency in SPSS enables researchers to effectively analyze data and draw meaningful conclusions. Dr. Atul Gupta , Coordinator of the FDP present the brief and objectives of the FDP.

The First Session of the FDP was on “Overview of research Methodology and ANOVA in SPSS. Dr. Deepak Kumar, Associate Professor, Deptt. Of ME was the session expert. The focus was on equipping faculty members with essential skills and knowledge to conduct high-quality research. The session began with an in-depth exploration of research methodology, emphasizing its significance in producing credible and impactful research outcomes.

Dr. Deepak kumar covered the importance of research approach towards a specific problem and conducting thorough literature reviews to identify existing research gaps, laying the foundation for innovative contributions to the field. Additionally, the program delved into the ANOVA (Analysis of Variance) technique, a powerful statistical tool commonly used to analyze differences between group means. Few important problems were solved by applying ANOVA in SPSS software.

Participants gained proficiency in applying ANOVA to their research designs, enabling them to draw robust conclusions from their data and make informed decisions based on statistical evidence. Participants learned effective strategies for synthesizing literature and leveraging it to inform their research objectives. Understanding research gaps enables faculty to position their work within the broader scholarly discourse and identify areas for meaningful exploration.

On second day of the FDP the session was scheduled on the topic “Introduction to Software-SPSS, Correlation and Regression”. Dr. ManojKumar Sain, Associate Professor, Deptt.of ME was the session expert. Dr. Sain delivered his lecture on introduction to SPSS software and regression analysis. In this session the hands on practice was done on problems related to correlation, linear regression and binary logistic regression.

On Third day of the FDP the Dr. Achin Srivastava, Associate Professor, Deptt. of ME delivered the expert talk on the topic “Descriptive Analysis, Cross Tabulation with two and three variables”. Through a blend of theoretical insights and hands-on demonstrations, attendees gained a profound understanding of descriptive statistics, enabling them to summarize and interpret key characteristics of their datasets effectively. Moreover, the session delved into the intricacies of cross-tabulation, illuminating how this technique facilitates the examination of relationships between categorical variables. With a focus on both two-variable and three-variable cross-tabulations, participants learned how to uncover meaningful patterns and associations within their data, thereby unlocking valuable insights to inform decision-making and strategic planning. Armed with these essential analytical tools, attendees departed equipped to embark on their own analytical endeavors with confidence and proficiency.

On the fourth day an interactive session on hypothesis testing using SPSS was taken by Dr. Manoj Kumar Sain. In his session Dr. Sain focused on fundamentals of hypothesis testing and then the various hypothesis testig cases on t-test and ANOVA were solved using SPSS. Through practical demonstrations and case studies, participants gain proficiency in various hypothesis tests, including t-tests, ANOVA, and non-parametric tests, discerning when and how to apply them effectively in different scenarios. Moreover, the session elucidates the critical concepts of Type I and Type II errors, power analysis, and sample size determination, fostering a deeper understanding of the trade-offs inherent in hypothesis testing.

On the fifth day the session was conducted by Dr. Achin Srivastava on Forecasting and Time Series. Through a meticulous examination of time-dependent data points, participants gain insights into forecasting techniques. This session not only equiped attendees with the theoretical understanding of these models but also emphasized their practical application across various domains, from finance and economics to marketing and supply chain management.

In the last Dr. Ajay Verma, Coordinator, FDP give the formal vote of thanks. Overall, the faculty members benefited immensely from the FDP by acquiring practical research skills, enhancing their ability to design and conduct rigorous studies.



**Swami Keshvanand Institute of Technology,
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Learning Outcomes of the FDP

The Faculty Development Program (FDP) on Research Methods and Data Analysis Using SPSS yields a plethora of valuable learning outcomes for participants. Firstly, attendees gain a comprehensive understanding of research methodologies, including study design, sampling techniques, and data collection methods, laying a solid foundation for conducting rigorous research. Secondly, participants become proficient in utilizing SPSS software for data management, manipulation, and statistical analysis, thereby enhancing their analytical capabilities and efficiency in handling large datasets. Furthermore, the FDP equips attendees with the skills to perform a wide range of statistical tests and techniques, such as descriptive statistics, inferential statistics, regression analysis, and factor analysis, empowering them to derive meaningful insights and draw valid conclusions from their data. Additionally, participants learn how to interpret and present their findings effectively, fostering the dissemination of research outcomes to diverse audiences. Overall, the FDP on Research Methods and Data Analysis Using SPSS empowers participants with the requisite knowledge and skills to conduct high-quality research and contribute meaningfully to their respective fields.



**Swami Keshvanand Institute of Technology,
Management & Gramothan**

Department of Management Studies

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Programme Schedule

Day 1: 18.03.2024 (Monday)	
12:30 pm – 2:30 pm	Session 1: Overview of research Methodology and ANOVA in SPSS
Day 2: 19.03.2024 (Tuesday)	
12:30 pm – 2:30 pm	Session 2: Introduction to Software-SPSS, Correlation and Regression
Day 3: 20.03.2024 (Wednesday)	
12:30 pm – 2:30 pm	Session 3: Descriptive Analysis, Cross Tabulation with two and three variables
Day 4: 21.03.2024 (Thursday)	
12:30 pm – 2:30 pm	Session 4: Hypothesis testing
Day 5: 22.03.2024 (Friday)	
12:30 pm – 2:30 pm	Session 5: Forecasting and Time Series



**Swami Keshvanand Institute of Technology,
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List of Experts

S. No.	Name of Expert	Designation	Organisation
1	Dr. Manoj Kumar Sain	Associate Professor	SKIT
2	Dr. Deepak Kumar	Associate Professor	SKIT
3	Dr. Achin Srivastava	Associate Professor	SKIT



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Few Glimpses of the FDP







PATRON

Shri Raja Ram Meel, Patron, SKIT
Shri Surja Ram Meel, Chairman, SKIT

ADVISORS

Shri Jaipal Meel, Director, SKIT
Prof. S. L. Surana, Director (Academics), SKIT
Mrs. Rachna Meel, Registrar, SKIT
Prof. Ramesh Kumar Pachar, Principal, SKIT
Mrs. Abba Meel, Adviser, SKIT
Prof. R. K. Jain, Dean, SKIT
Prof. Anil Choudhary, HOD (IT), SKIT
Prof. Mukesh Gupta, HOD (CSE), SKIT
Prof. Mukesh Arora, HOD (ECE), SKIT
Prof. D. K. Sharma, HOD (CE), SKIT
Dr. Sarfaraz Nawaj, HOD (EE), SKIT
Prof. Rohit Mukherjee, Incharge, B. Tech. I Year SKIT
Prof. Amber Shrivastava, HOD (Maths), SKIT
Dr. Sharda Soni, HOD (Chemistry), SKIT
Prof. Brajraj Sharma, HOD (Physics), SKIT
Prof. Neha Purohit, HOD (English), SKIT

FACILITATORS

Prof. Ona Ladiwal, HOD (DMS), SKIT
Prof. Dheeraj Joshi, HOD (ME), SKIT

COORDINATORS

Dr. Atul Gupta, Associate Professor, DMS, SKIT
Dr. Ajay Verma, Associate Professor, DMS, SKIT
Dr. Manoj K. Sain, Associate Professor, ME, SKIT

TECHNICAL COORDINATORS

Dr. Achin Srivastav, Associate Professor, ME, SKIT
Dr. Deepak Kumar, Associate Professor, ME, SKIT

ORGANIZING COMMITTEE

Dr. Savita Choudhary, Associate Professor, DMS, SKIT
Dr. Maneesha Kaushik, Associate Professor, DMS, SKIT
Mr. Tarun Sharma, Assistant Professor, DMS, SKIT

REGISTRATION

Limited Seats are available to the Maximum of 25 Participants.

Note:

- ✓ The faculty development programme will be conducted offline mode.
- ✓ The registration for the FDP is on first come first serve basis.
- ✓ Certificate will be provided to the participants who will attend all the sessions.

VENUE

CAD Lab., Ground Floor,
Mechanical Engg. Department

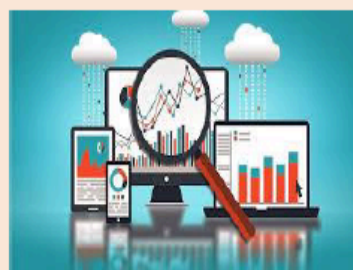
For any queries regarding FDP, please contact:
fdpbame@skit.ac.in

Dr. Atul Gupta (Coordinator)
Mobile: 9829510357
Email: atul.gupta@skit.ac.in

Dr. Ajay Verma (Coordinator)
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Email: ajay.verma@skit.ac.in

Faculty Development Programme on Research Methods and Data Analysis Using SPSS Software

March 18 – 22, 2024



Organized by
DEPARTMENT OF MANAGEMENT
STUDIES
&
DEPARTMENT OF MECHANICAL
ENGINEERING

(Under the aegis of IQAC)



Swami Keshvanand Institute of Technology,
Management & Gramothan, Ramnagar,
Jagatpura, Jaipur – 302017

web: www.skit.ac.in

About SKIT Jaipur

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) has been ranked no.1 engineering institute in Rajasthan by RTU, Kota consecutively for the last three years. 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). The institute has been successful in obtaining the highest possible NAAC - A++ Grade with 3.67 institutional CGPA on a 4 point scale.

Department of Management Studies

Department of Management Studies in its endeavor to strengthen the philosophy of Swami Keshvanand Ji and achieve excellence in Techno-managerial environment, the institute established Department of Management Studies in the academic year 2006-2007. The Department of Management Studies offers an AICTE approved Master of Business Administration (MBA) degree course, affiliated to Rajasthan Technical University, Kota. The Department aims at developing future managers equipped with curricular & co-curricular skills, which will help them to make a mark in the industry. To achieve its vision the Department uses a blend of well-qualified and experienced core faculty and renowned visiting faculty members from other institutes. To enhance the horizon of knowledge, various Seminars, Workshops, and Entrepreneurial Activities are organized regularly.

Department of Mechanical Engineering

The department started academic activities in the year 2003-04 with the admission of its first batch of undergraduates. The Department offers B.Tech. in Mechanical Engineering and Renewable Energy Technology courses. In addition, it is also a recognized Research Center of RTU Kota and offers Ph.D. program. The department has modern laboratories developed and designed from the perspective of the latest requirements of academia and industry. Consistent pursuit of excellence by the department is clearly reflected in the fact that its B.Tech. program 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.

OBJECTIVES OF THE FDP

- To acquaint participants with contemporary research methods and techniques.
- To familiarize participants with software based statistical tools & techniques in research.
- To provide an opportunity for the participants to interact and learn from experts.
- To mentor participants on publishing their research in reputed journals.

CONTENTS OF THE FDP

- Introduction to Research, Preparing for research, review of literature and identification of research gap
- Introduction to Software-SPSS
- Correlation and Regression Parametric Test
- Data Analysis with SPSS
- Descriptive Analysis, Cross Tabulation with two and three variables
- Hypothesis testing
- Forecasting and Time Series

RESOURCE PERSON

The various sessions of FDP will be taken by the senior Faculty members of the institute who are expert at SPSS software.

TARGETED AUDIENCE

This FDP will be very helpful for faculty members, and research scholar. The targeted audiences are faculty of various management and engineering department of the institute.

REGISTRATION FEE

There is no registration fee.

IMPORTANT DATES

Last Date for Registration: 16.03.2024
FDP Date: 18.03.24 to 22.03.24



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Faculty Development Program on

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March 18th – 22nd, 2023

List of the Participants

S.No.	Employee ID	Name of Faculty	Department
1	46	Dr. Swati Arora	ECE
2	637	Dr. kiran Rathi	ECE
3	931	Dr. Nandini Moondra	CE
4	795	Dr. Kishan Lal Jain	CE
5	97	Dr. Pramila Kumawat	Mathematics
6	175	Dr. Ajay Kumar Sharma	Physics
7	738	Mr. Pawan Kumar Jain	Physics
8	670	Jitendra Rahul	EE
9	940	Prateek Kumar Singhal	EE
10	85	Praveen Saraswat	ME
11	918	Ms. Jeba Nega Cheltha	CSE
12	938	Mr. Shirish Nagar	CSE
13	80	Manoj Kumar Sain	ME
14	835	Achin Srivastav	ME
15	140	Sandeep Kumar Bhaskar	ME
16	875	Deepak Sumar Sharma	ME
17	945	Tarun Sharma	DMS
18	912	Dr. Ajay Verma	DMS
19	122	Dr. Atul Gupta	DMS
20	121	Dr. Ona Ladiwal	DMS
21	148	Dr. Maneesh Kaushik	DMS
22	123	Dr. Savita Choudhary	DMS
23	949	Ritu Shukla	IT
24	959	Shikha Srivastava	IT
25	H220001	Poonam	DMS
26	83	Ankit Agarwal	ME
27	153	Dinesh Sharma	ME
28	141	Arun Beniwal	ME

एसकेआईटी में पांच दिवसीय एफडीपी का उद्घाटन

P3 Police Public Politics

जयपुर / जुगल शर्मा । स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी, मैनेजमेंट एंड ग्रामोत्थान, जयपुर के मैकेनिकल इंजीनियरिंग विभाग के सहयोग से प्रबंधन अध्ययन विभाग ने 18 मार्च, 2024 से 22 मार्च, 2024 तक एएसपीएसएस सॉफ्टवेयर का उपयोग करके अनुसंधान विधियों और डेटा विश्लेषण पर 5 दिवसीय एफडीपी कार्यक्रम की शुरुआत हुई। एफडीपी के उद्घाटन की अध्यक्षता एसकेआईटी के निदेशक (शैक्षणिक) प्रो. एस.एल. सुराणा ने की, जिन्होंने संकाय सदस्यों को गुणवत्तापूर्ण अनुसंधान प्रयासों में शामिल होने के लिए प्रोत्साहित किया। एचओडी-डीएमएस डॉ. ओना लाडीवाल ने विशिष्ट अतिथियों का स्वागत किया।



डॉ. दीपक कुमार, डॉ. मनोज कुमार सैन और डॉ. अचिन श्रीवास्तव एफडीपी के विशेषज्ञ हैं।

डॉ. धीरज जोशी, एचओडी-एमई, ने कार्यवाही के दौरान एफडीपी के विषय पर प्रकाश डाला। कार्यक्रम का संयोजन

डॉ. अतुल गुप्ता, डॉ. अजय वर्मा एवं डॉ. मनोज सैन द्वारा किया गया। इस तरह की पहल संस्थान के समग्र शैक्षणिक उत्कृष्टता में योगदान करते हुए, संकाय सदस्यों के ज्ञान और कौशल को बढ़ाने में महत्वपूर्ण भूमिका निभाती है।

पांच दिवसीय एफडीपी का उद्घाटन

जयपुर। स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी, मैनेजमेंट एंड ग्रामोत्थान, जयपुर के मैकेनिकल इंजीनियरिंग विभाग के सहयोग से प्रबंधन अध्ययन विभाग ने 18 से 22 मार्च, 2024 तक एसपीएसएस सॉफ्टवेयर का उपयोग करके अनुसंधान विधियों और डेटा विश्लेषण पर 5 दिवसीय एफडीपी कार्यक्रम की शुरुआत हुई। एफडीपी के उद्घाटन की अध्यक्षता एसकेआईटी के निदेशक (शैक्षणिक) प्रो. एस.एल. सुराणा ने की, जिन्होंने संकाय सदस्यों को गुणवत्तापूर्ण



अनुसंधान प्रयासों में शामिल होने के लिए प्रोत्साहित किया। एचओडी-डीएमएस डॉ. ओना लाडीवाल ने विशिष्ट अतिथियों का स्वागत किया।

डॉ. दीपक कुमार, डॉ. मनोज कुमार सैन और डॉ. अचिन श्रीवास्तव एफडीपी के विशेषज्ञ हैं। डॉ. धीरज जोशी, एचओडी-एमई, ने कार्यवाही के

दौरान एफडीपी के विषय पर प्रकाश डाला। कार्यक्रम का संयोजन डॉ. अतुल गुप्ता, डॉ. अजय वर्मा एवं डॉ. मनोज सैन द्वारा किया गया। इस तरह की पहल संस्थान के समग्र शैक्षणिक उत्कृष्टता में योगदान करते हुए, संकाय सदस्यों के ज्ञान और कौशल को बढ़ाने में महत्वपूर्ण भूमिका निभाती है।

पांच दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम शुरू



बेधड़क | जयपुर

स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी, मैनेजमेंट एंड ग्रामोत्थान के मैकेनिकल इंजीनियरिंग विभाग के सहयोग से प्रबंधन अध्ययन विभाग में 'एसपीएसएस सॉफ्टवेयर का उपयोग करके अनुसंधान विधियों और डेटा विश्लेषण' विषय पर पांच दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम की शुरुआत सोमवार को हुई। एफडीपी के उद्घाटन कार्यक्रम की अध्यक्षता एसकेआईटी के निदेशक (शैक्षणिक) प्रो. एसएल सुराणा ने की। उन्होंने संकाय सदस्यों को गुणवत्तापूर्ण अनुसंधान प्रयासों में शामिल होने के लिए प्रोत्साहित

किया। एचओडी-डीएमएस डॉ. ओना लाडीवाल ने विशिष्ट अतिथियों का स्वागत किया। डॉ. दीपक कुमार, डॉ. मनोज कुमार सैन और डॉ. अचिन श्रीवास्तव एफडीपी के विशेषज्ञ हैं। एचओडी-एमई डॉ. धीरज जोशी ने कार्यवाही के दौरान एफडीपी के विषय पर प्रकाश डाला। कार्यक्रम का संयोजन डॉ. अतुल गुप्ता, डॉ. अजय वर्मा एवं डॉ. मनोज सैन ने किया। इस तरह की पहल संस्थान के समग्र शैक्षणिक उत्कृष्टता में योगदान करते हुए संकाय सदस्यों के ज्ञान और कौशल को बढ़ाने में महत्वपूर्ण भूमिका निभाती है।