

Five Days

FACULTY DEVELOPMENT PROGRAMME

on

"Research Methodology: A Roadmap to Effective Research"

23rd -29th January, 2024

Resource Persons



Prof. V. Samuel Raj

Dean Academic Affairs,
Dean Research & Registrar
SRM University, Delhi-NCR, Sonapat



Prof. Renu Choudhary

Convener, HOD
Faculty of Management and Commerce
SRM University, Delhi-NCR, Sonapat



Dr. Anjali Priyadarshini

Research Coordinator & Convener
HOD, Biomedical Engineering
SRM University, Delhi-NCR, Sonapat



Roopendra Roopak

Ph.D. (IIM Kashipur)
Faculty, O.P Jindal Global
University, Sonapat.



Anurag Kulshrestha

Ph.D. (IIM Kashipur)
Faculty, O.P Jindal Global
University, Sonapat



Dr. Shikha Suman

Ph.D. (IIIT Allahabad)
Faculty, SRM University,
Delhi- NCR, Sonapat, Haryana

Venue: Conference Hall, 5th Floor, Engineering block, SRM University, Delhi-NCR, Sonapat.

Organized by:

**Faculty of Management & Commerce, Department of Biomedical Engineering
Department of Microbiology, Department of Biotechnology**

About SRM University, Delhi-NCR, Sonapat

SRM Group of Institutions have 5 decades of legacy, 4 Universities, 7 campuses, 22 institutions and celebrated as one of the top ranking Universities in India with over 80,000 students and 5,000 faculty members.

Based on demand and greater accessibility, the need to establish a revolutionary campus in the national capital region paved way for SRM University, Delhi-NCR, Sonapat which was established under the Haryana Private Universities Act 2006 as amended by Act 8 of 2013. It is also recognized by UGC u/s 2(1) of UGC Act 1956, DSIR, AIU, ACU and approved by BCI. The vision is to emerge as a leading world-class University that disseminates knowledge by adapting industry oriented pedagogy in Engineering & Technology, Management, Law and Science & Humanities at par with international standards as well as SRMUH focuses on research and provides world-class facilities for research as a good research environment begin with state-of-the-art laboratories, libraries, and research centers.

Viksit Bharat @ 2047

Viksit Bharat @ 2047 is to provide a dynamic platform with a vision to build developed India. In this regard, innovative research plays a pivotal role in the progress and development of any nation, contributing to advancements in Management, Commerce, Science & Technology and various other fields. A nation that prioritizes the research area and invests in Research and Development (R&D) becomes the progressive nation. In the context of a developed India, robust research initiatives would likely be fundamental to address societal challenges, fostering economic growth, and enhancing the overall quality of life. Research-driven policies and advancements in various sectors can propel a nation towards prosperity and sustainability.

As initiative of Viksit Bharat, SRM University, Delhi-NCR is organising a five days FDP on Research methodology which aims to empower educators and researchers with the essential tools and skills required for robust and impactful scholarly work.

About Department of Management and Commerce

The Department of Management & Commerce is committed to provide transformative learning experience to our students through its various undergraduate, postgraduate and doctoral degree programmes. Envisage, Innovate and Incubate are the pillars on which we deliver the education through the art and science of value creation. The fast changing pace of business transformation, both nationally and globally, has created the demand for well-rounded business school graduates who have a range of knowledge, skills and abilities in addition to ethically prudent and leadership values. Our aim is to inculcate entrepreneurial and leadership mindset to enable you to think globally and act locally.

About Department of Biomedical Engineering, Biotechnology & Microbiology

The Department of Biomedical engineering combines medical and biological sciences with engineering principles to design and create equipment, devices, and software used in healthcare. It brings together knowledge from various sources of medicine and engineering to conduct research needed to solve clinical problems.

The Department of Biotechnology & Microbiology works with the mission to make its students technically strong to deal with the various problems related to health, environment which is plaguing the world. The department has nationally and internationally experienced and trained faculty to impart knowledge in the various specialized fields with emphasis on hand on training of latest techniques.

Overview of the FDP

The Faculty Development Program (FDP) on Research Methodology aims to empower educators and researchers with the essential tools and skills required for robust and impactful scholarly work. This program provides participants with a comprehensive understanding of diverse research methodologies, equipping them to design and conduct effective research across various disciplines. Through interactive sessions, practical exercises, and case studies, participants will delve into the intricacies of formulating research questions, selecting appropriate methodologies, and employing statistical analysis techniques. The FDP not only enhances participants' methodological proficiency but also encourages the application of ethical standards in research. Ultimately, the program seeks to foster a research-oriented mind set among educators, contributing to the overall advancement of academic excellence and innovation in their respective fields.

Objectives of the FDP

1. To empower participants with basic and applied knowledge of research methodology and bibliometric analysis to assess research impact effectively.
2. To elevate participants' proficiency in advanced Excel techniques and data visualization, fostering a deeper understanding of data presentation and analysis.
3. To familiarize participants with SPSS, EndNote and Mendeley guide them in expert questionnaire preparation, and acquaint them with cutting -edge research tools, enhancing their research toolkit.
4. To introduce participants to the principles of machine learning, ensuring they acquire a solid foundation in this evolving field.
5. To equip participants with the skills to adeptly utilize advanced machine learning techniques, enabling them to apply sophisticated models effectively in practical scenarios.

FDP Schedule

Date & Day	Time	Technical Session	Topic
Day 1			
23/01/2024 Tuesday	10:00 -11:30	Session 1	• Introduction, objectives, and the significance of research methodology. • Overview and importance of research gaps identification. • Understanding the research plan, research design, and gap identification.
	11:30-01:00	Session 2	• Metrics, tools, and applications of bibliometrics (with the aid of free software). • Network analysis for visualizing knowledge structures and collaborations.
Day 2			
24/01/2024 Wednesday	10:00 -11:30	Session 1	• Advanced Excel Techniques. • Advanced Excel functions for data analysis and manipulation.
	11:30-01:00	Session 2	• Visualizing data for effective communication. • Hands-on workshop on creating impactful data visualizations.
Day 3			
25/01/2024 Thursday	10:00 -11:30	Session 1	• Overview of SPSS and its applications in research. • Importing data into SPSS, basic data utilization and preparing questionnaires.
	11:30-01:00	Session 2	• Introduction to advanced research tools for enhanced data analysis.
Day 4			
27/01/2024 Saturday	10:00 -11:30	Session 1	• Introduction to machine learning: Supervised vs. unsupervised learning, algorithms, and applications. • Data mining techniques: Classification, prediction, and pattern recognition.
	11:30-01:00	Session 2	• Exploring machine learning algorithms and tools for basic research tasks using R and Python.
Day 5			
29/01/2024 Monday	10:00 -11:30	Session 1	• Introduction to referencing tools like EndNote and Mendeley for effective literature review.
	11:30-01:00	Session 2	• Addressing final questions and concerns. • Distribution of certificates, feedback collection, and closing remarks.

Note: Participants are requested to bring their own laptops.

Resource Persons

The program boasts esteemed resource persons, distinguished faculty members from renowned universities and institutions in India, as well as experts from various departments within SRM University. Among them are:

- **Prof. (Dr.) V. Samuel Raj**
Dean Academic Affairs, Dean Research & Registrar
SRM University, Delhi-NCR, Sonapat
- **Prof. (Dr.) Renu Choudhary**
HOD, Faculty of Management and Commerce
SRM University, Delhi-NCR, Sonapat
- **Dr. Anjali Priyadarshini**
Coordinator R&D, HOD, Department of Biomedical Engineering
SRM University, Delhi-NCR, Sonapat
- **Dr. Shikha Suman**
Ph.D. (IIIT Allahabad), Faculty at SRM University, Sonapat
- **Mr. Anurag Kulshrestha**
Ph.D. (IIM Kashipur), Faculty at O.P Jindal Global University, Sonapat.
- **Mr. Roopendra Roopak**
Ph.D. (IIM Kashipur), Faculty at O.P Jindal Global University, Sonapat.

These accomplished individuals bring a wealth of experience and expertise, ensuring participants receive valuable insights and knowledge during the Faculty Development Program.

Number of Participants

The number of participants shall be restricted to 50 only and the selection will be made on first-cum-first served basis.

Target Group

- ☐ Professionals
- ☐ Research Scholars
- ☐ Faculty Members from any stream of knowledge.

Venue

Conference Hall, 5th Floor, Engineering block, SRM University, Delhi-NCR, Sonapat, Haryana, India.

Certificate

The participants will be provided certificates on successful completion of the program.

Organizing Committee

CHIEF PATRONS

Dr. T. R. Paarivendhar
Hon'ble Founder Chancellor

Dr. Ravi Pachamuthu
Hon'ble Chancellor
SRM University Delhi-NCR, Sonapat

PATRON

Prof. (Dr.) Paramjit S. Jaswal
Hon'ble Vice Chancellor
SRM University, Delhi-NCR, Sonapat

MENTOR

Prof. (Dr.) V. Samuel Raj
Dean Academic Affairs, Dean Research & Registrar
SRM University, Delhi-NCR, Sonapat

CONVENERS

Prof. (Dr.) Renu Choudhary
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SRM University, Delhi-NCR, Sonapat

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