



DEPARTMENT OF STATISTICS

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT

(Re- Accredited 'B++' 2.86 CGPA by NAAC)

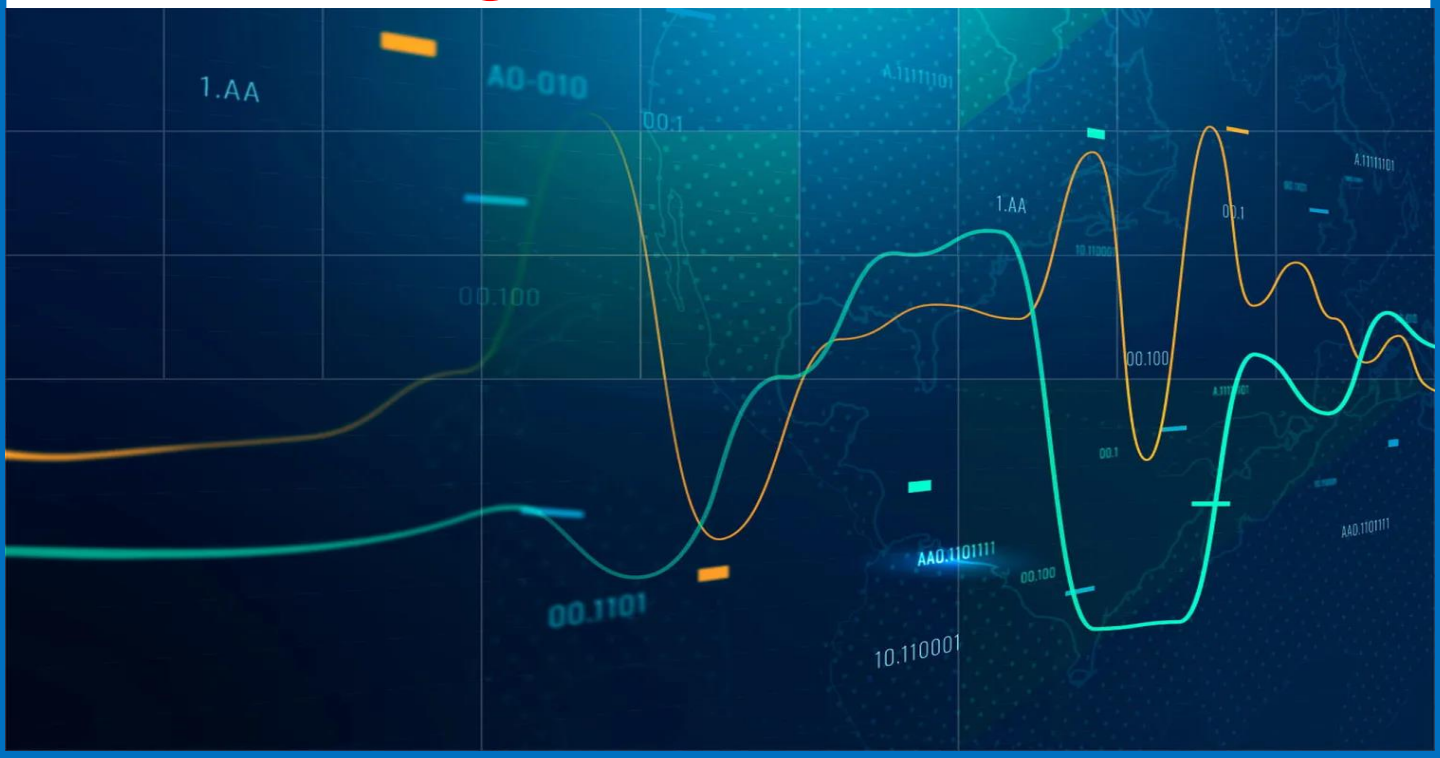
is organizing

**Two Days National Workshop
on**

“Time Series Analysis Using Open-Source Software”

Under PM-USHA (Soft Component)

During 13th to 14th March 2026



About Veer Narmad South Gujarat University, Surat

Veer Narmad South Gujarat University (VNSGU) is a prominent public university located in Surat, Gujarat—one of India's fastest-growing cities, renowned for its thriving diamond and textile industries. Established in 1965, the university has consistently aimed to be a center of excellence in higher education, aligning its goals with regional needs and emerging global trends. Named after the celebrated Gujarati poet Narmadshankar Lalshankar Dave, VNSGU boasts a sprawling campus of over 210 acres. In 2022, the university was re-accredited with a 'B++' grade and a CGPA of 2.86 on a 4-point scale by NAAC. It offers a wide range of academic programs across 12 faculties, catering to approximately 250,000 students through its 27 postgraduate departments and 263 affiliated colleges.

About the Department of Statistics

The Department of Statistics at Veer Narmad South Gujarat University was established in 1970 as a joint Department of Mathematics and Statistics. In 1972, the Mathematics section was separated to form an independent department. In 1996, the department was assigned the responsibility of managing the Computer Science teaching programs (MCA, DCA) as well as the administration of the Central University Computer Centre. Between 1996 and 2003, significant departmental resources and efforts were dedicated to strengthening these Computer Science programs and the Computer Centre, culminating in the university's approval to establish a separate Department of Computer Science from the academic year 2003-04. Building on its commitment to serve society through knowledge, the department launched a self-financed postgraduate program, M.Sc. (Applied Statistics), in the academic year 2007-08.

Currently, the Department of Statistics offers the following academic programs:

- M. Sc. (Statistics) & Ph. D. (Statistics)
- M. Sc. (Applied Statistics) & Ph. D. (Applied Statistics)

In addition, the department provides several certificate courses, including:

- Python for Statistics - Since Feb. 2022
- Communicative English for Career (CEC) - Since Oct. 2022
- Advanced Excel for Business Analytics - Since May 2023
- Statistical Data Analysis using SPSS - Since May 2023

The Department of Statistics has a strong record of organizing academic and outreach activities.

It has successfully conducted:

- 2 State-Level Seminars
- 4 National-Level Seminars
- 2 National Faculty Development Programmes (FDPs) under the PM-USHA Soft Component
- 5 Online National Quizzes organized in celebration of National Statistics Day (29th June)

These initiatives reflect the department's continuous efforts toward academic enrichment, faculty development, and the promotion of statistical awareness at regional and national levels.

In addition, the Department has been organizing an Alumni Lecture Series since 2021, providing students with valuable academic and professional insights from distinguished alumni. The Department regularly conducts academic visits for current students, including visits to Agricultural Universities across Gujarat State and Fine Star Diamond Company, Surat to enhance practical exposure. As part of national academic enrichment, students visited the Indian Statistical Institute (ISI), Bengaluru in 2025 and ISI, Kolkata in 2026. The Department also organizes department-level workshops, training program, career guidance lectures, and skill-oriented academic activities to support student's overall academic and professional development.

About Workshop

This two-day national workshop is designed to provide comprehensive training in time series analysis using open-source software tools such as R and Python. The program covers fundamental concepts, exploratory data analysis, and classical time series models including AR, MA, ARIMA, and SARIMA. Participants will also be introduced to advanced techniques such as ARCH/GARCH, mixed models, and modern machine learning approaches for time series forecasting. Through hands-on sessions, learners will gain practical experience in data visualization, model building, and diagnostic checking. Real-world datasets will be used to demonstrate applications across various research domains. The workshop aims to enhance analytical skills and support research-oriented and data-driven decision making.

Objective of the Workshop

- To introduce fundamental concepts and applications of time series analysis.
- To provide hands-on training using open-source software (R/Python) for data visualization and modeling.
- To develop skills in classical and advanced time series models for forecasting.
- To familiarize participants with modern methods such as machine learning and mixed model approaches.
- To enhance research and data analysis capabilities through real-world datasets.

Target Audience & Selection Criteria

- PG students and research scholars from diverse academic disciplines who wish to enhance their skills in time series analysis and forecasting using open-source statistical software.
- Participants will be selected on a first-come, first-served basis. **Bringing a laptop for hands-on practice during all sessions is mandatory.**

Program Details & Registration

Duration: Two Days (12 hours)

Mode of Delivery: Offline (Classroom-based training with computer lab-oriented hands-on sessions)

Registration form: <https://forms.gle/z7zvZ6MBN4GRGiiP6>

Last Date of Registration: **8th March 2026 (Only 70 seats are available)**

NOTE:
There is no registration fee for this workshop; however, registration is mandatory and arrangements have been made for breakfast and lunch for all the participants. All other expenses need to be managed by the participants themselves.

Assessment and Certification

Participants will be evaluated based on their performance in a quiz and their active participation in hands-on sessions throughout the workshop. Certificates of participation will be awarded to those who attend all the sessions.

Accommodation

A limited number of accommodations are available on a first-come, first-served basis for outstation participants, upon prior request. These will be provided within the university campus. Participants who do not secure campus accommodation are kindly requested to make their own stay arrangements.

Transportation

Surat is well connected by rail, road, and air to all major cities and towns. Veer Narmad South Gujarat University is located approximately 11 km from the Surat Railway Station and Central Bus Stand, and about 7 km from Surat Airport. Local transportation, including buses and auto-rickshaws, is readily available for commuting.

PATRON

Dr. Kishorsinh N. Chavda

Vice Chancellor, VNSGU, Surat

CO-PATRON

Dr. Rameshdan C. Gadhvi

Registrar, VNSGU, Surat

PM-USHA COORDINATOR

Dr. Jaydeep Chaudhari

Prof. DBIM, VNSGU, Surat

CONVENER

Dr. Arti J. Rajyaguru

Prof. & Head, Deptt. of Statistics, VNSGU, Surat

Workshop Co-Ordinator

Dr. Shital S. Patel

Assistant Professor, Deptt. of Statistics, VNSGU, Surat

ORGANIZING COMMITTEE

Ms. Disha Bharodiya

Mr. Urvesh Raiyani

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Ms. Shreesiddhi Pandya

Ms. Krishna Sailor

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Organized by:

Department of Statistics

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Get to Know the Department of Statistics:

<https://www.vnsгу.ac.in/departments/statistics/index.html> ,

<https://www.facebook.com/profile.php?id=100006747195824>

<https://www.instagram.com/statisticsdepartment.vnsгу/> ,

<https://www.vnsгу.ac.in/departments/statistics/testimonials.html>



Two Days National Workshop on “Time Series Analysis Using Open-Source Software”

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During 13th to 14th March 2026



Program Schedule

13/03/2026(DAY 1): Fundamentals to Core Modeling

Time	Session	Event
08:30 AM– 09:30 AM	Registration & Breakfast	
09:30 AM– 10:00 AM	Inaugural Function	
10:00 AM– 11:30 AM	Session 1	Introduction to Time Series (Concepts, Types, Applications)
11:30 AM– 13:00 PM	Session 2	Components of Time Series & Decomposition Methods (Trend, Seasonal, Cyclical, Irregular)
13:00 AM– 14:00 PM	Lunch Break	
14:00 PM– 15:30 PM	Session 3	Stationarity, ACF/PACF, Exploratory Time Series Analysis using R/Python
15:30 PM -17.00 PM	Session 4	AR, MA, and ARMA Models (Estimation & Diagnostics)

14/03/2026(DAY 2): Advanced Modeling and Modern Methods

Time	Session	Event
08:30 AM– 09:30 AM	Breakfast	
09:30 AM– 11:00 AM	Session 5	ARIMA and Seasonal ARIMA (SARIMA) Forecasting
11:00 AM – 12:30 PM	Session 6	Advanced Models – ARCH/GARCH, VAR, State Space Models
12:30 PM – 13:30 PM	Lunch Break	
13:30 PM – 15.00 PM	Session 7	Machine Learning & Deep Learning for Time Series (LSTM, Prophet)
15:00 PM – 16.30 PM	Session 8	Mixed model approach
16:30 PM – 17:00 PM	Valedictory Function	

Note: Mandatory to upload Nomination Form with stamp and signature of respective Institute of participants. Download NOC word format from given Link:

<https://docs.google.com/document/d/1xyzsdLUYHB1Ip7ILzk5oTF4s2caStILS/edit?usp=sharing&oid=116405719116342842650&rtpof=true&sd=true>