



# M.G. SCIENCE INSTITUTE, AHMEDABAD

(AUTONOMOUS)

AFFILIATED TO GUJARAT UNIVERSITY  
MANAGED BY AHMEDABAD EDUCATION SOCIETY  
NAAC "A" Grade 3rd Cycle | GSIRF 4 Star Ranking



## MACHINE LEARNING USING PYTHON

### ABOUT M G SCIENCE INSTITUTE

M. G. Science Institute has been a temple of learning for almost seven decades. Established in 1946, the Institute is affiliated to Gujarat University and has a grant-in-aid status from the govt. of Gujarat. It has carved its path to eminence through sheer dynamism and dedication of its founder fathers and educators. M. G. Science Institute is a leading institute offering Undergraduate and postgraduate degree courses in various disciplines of science. Offers the highest number of degree courses- 13 at the graduate level and 3 at the postgraduate level.

### RATIONALE OF THE PROGRAM

Machine learning and artificial intelligence models are dominating nowadays in a variety of application domains. Among data scientists, Python programming language is one of the most widely used programming languages for machine learning algorithms. The workshop aims to provide a basic understanding of machine learning techniques and how to implement ML using Python programming.

### WHO SHOULD ATTEND?

- Students (UG/PG)
- Research Scholars from various domains
- Faculty Members

**Duration : 5 Days (30 hours)**

**Mode : Offline**

**Dates : 22-27 May 2024**

**Time : 11:00 am to 05:30 pm**

### COURSE OUTCOMES

- Conceptual understanding of machine learning.
- Types of machine learning techniques.
- Basics of data visualization using Matplotlib, Seaborn
- Detailed understanding of the steps involved in statistical analysis and how to perform analysis using Python programming.
- Explore how to apply Machine Learning techniques using Python programming.

### FEATURES:

- **30 hours of Hands-on Training on Machine Learning Using Python.**
- Discussion of related case studies.
- Interaction & learning with experts from academia.
- Certificate to the participants
- Batch Size: 50

### SESSION CONTENTS

- Introduction to Python and Jupyter Notebook
- Overview of ML techniques
- Supervised Machine Learning
- Linear Regression
- Logistic Regression
- Discriminant Analysis
- Classification and Regression Tree
- Naive Bayes
- K-nearest neighbours
- Unsupervised Machine Learning
- Cluster Analysis (Hierarchical and Non-hierarchical)

## FACILITATORS

### DR. RAJU CHAUDHARI

He is an Associate Professor of Statistics at M. G. Science Institute, Ahmedabad. He has academic experience of more than 28 years. He has obtained his B.Sc. degree from the University of Pune, M.Sc. and Ph. D. in Statistics from Sardar Patel University, Vallabh Vidyanagar. He has published several research papers in national and international forums. His teaching area includes Probability and Distribution Theory, Statistical Inference, Design of Experiments, Survey Sampling, Quantitative Techniques, Operations Research, and R Programming. He has been the key resource person for Research Data and Statistical Analysis workshops Using R programming, Python programming, Jamovi, SPSS and MS-Excel, organized at various institutions. Additionally, he worked as a project consultant to Develop On-line Data Exploration Tool for ICSSR Project at Inflibnet Gandhinagar Using R, R studio and Shiny. He has also provided consultancy services for the project "Commodity prediction using R programming" for Bombay Softwares.

### DR. PARAG SHAH

He is a full-time professor of Statistics at H. L. College of Commerce, Ahmedabad. He has academic experience of more than 23 years. He has completed a Ph. D. in Statistics from Gujarat University, in 2008. He has pursued a Masters of Philosophy in Statistics from Gujarat University and Masters of Science in Statistics from the same university as part of his professional education. He completed his Bachelor of Science in Statistics from St. Xavier's College, in 1994. He has also undertaken various courses from renowned institutes like CMC Vellore, IIT Kharagpur, IIT Hyderabad and Duke University USA. He is an active member of various national and international bodies working in the field of Statistics namely, the International Indian Statistical Association and Executive Committee of Gujarat Statistical Association. He has more than 20 published research papers to his credit. He has also authored more than 8 books of Statistics including two in well known publisher like TATA McGraw-Hill. He had conducted a number of workshops for Data analysis using R programming, Python programming, Jamovi, MS Excel and SPSS for domains like sports, education, life sciences, commerce and more.

### REGISTRATION FEE

#### Fee per Certificate Course:

UG/PG Students: INR 3000 + 18% GST

Persons from Industry : INR 3500 + 18% GST

#### All the Three Courses Discount:

UG/PG Students: INR 8000 + 18% GST

Persons from Industry : INR 9500 + 18% GST

### ACCOUNT DETAILS

**Account Name:** M/S/ M.G. Science Institute,  
Self Finance Program

**Bank Name:** ICICI Bank Ltd.

**Account No.:** 136701002677

**IFSC Code:** ICIC0001367

### Payment Details



### REGISTRATION DETAILS

1. Payment can be made through Internet Banking, Google Pay or Paytm or PhonePe or UPI.
2. Registration form can be filled after paying fee of the workshop by clicking on the link <https://bit.ly/mgscience>
3. Confirmation would be intimated after verification of payment.

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