BUILDING SKILLS, BUILDING INDIVIDUALS

K2 ANALYTICS

K2ANALYTICS.CO.IN

MACHINE LEARNING CERTIFICATION PROGRAM

K2 Analytics
Building Skills, Building Individuals

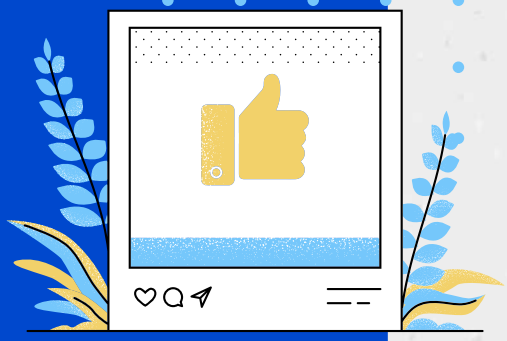
Website : https://www.k2analytics.co.in/
Mobile : +91 89396 94874

About K2 Analytics

K2 Analytics is a Business Intelligence and Analytics focused training institute.

WHO IS THIS PROGRAM FOR?

- Students with a bachelor's degree and passion for Data Science.
- Senior Managers who want to upskill themselves to for the future.
- Business Analysts & Software Engineers looking to switch into Data Science.
- College Graduates working in the Data Science domain and looking to enhance their career.



Features & Benefits

- Designed for working professionals
- 70% Hands-on content with lab sessions
- 24 x 7 Access to online videos and content

Special Batch For Sr Managers

- Only week-end batches
- Duration: 100+ hours
- Capstone projects

BLOG

https://k2analytics.co.in/blog/

OUR MISSION

“To provide training and skill development courses to individuals, make them skilled & industry ready, and create a pool of skilled resources readily available for the industry”

OUR VISION

“To be the preferred partner for training and skill development”

OUR TRAINING COURSES

WE OFFER MODULAR TRAINING IN DATA SCIENCE / MACHINE LEARNING.

You can pick and choose what you wish to learn.

Recorded Video Content Access Provided
(100+ hours pre-recorded content available)

Machine Learning Course Duration
6 Months – 120 Hours, Week-end sessions

WHY US ?

- Key Trainer – Rajesh Jakhotia who has 17+ years analytics experience
- Hands-on Experiential Training
- Capstone Projects
- Placement Assistance

COURSE DETAILS

MACHINE LEARNING CERTIFICATION PROGRAM

WHAT YOU GET?

120 Hours Instructor Led Online Training
100 Hours of Recorded Video Content
Consult with our faculty for your real-life projects
Hands-on Project Experience

COURSE FEE

₹ 85,000 (+ GST)
(₹ 1,00,300 all inclusive of taxes)

PICK AND CHOOSE

You can pick and choose the module you wish to learn. Pricing for individual module is given at module level details

Machine Learning Course Curriculum

Sr. No	Topic	Hrs.
	Tool Training	
1	R Programming	10
2	Python Programming	10
3	MS Excel	4
4	SQL	4
	Numerical Skills	
5	Statistics	20
	Machine Learning Techniques	
6	Clustering	6
7	PCA & FA	4
8	Linear Regression	8
9	KNN	2
10	Naïve Bayes	2
11	Classification Tree	6
12	Logistic Regression	8
13	Bagging – Random Forest	6
16	Boosting	6
17	Artificial Neural Networks	6
18	Computer Vision	18
	Total Hours	**120**

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R PROGRAMMING

COURSE DETAILS

- Introduction to R and R Studio
- Understanding R Data Structures
- Vector, List, Matrix, Dataframe
- Data Import – Export in R (.CSV, .XLSX, Fixed Width Format File)
- Data Manipulation
  - Selecting Rows / Observations
  - Selecting Columns / Fields
  - Merging Data
  - Relabeling the Column Names
  - Converting Variable Types
  - Data Sorting
  - Data Aggregation
- Apply Family of Functions
- Functions and Programming Structures
- Charts and Graphs in R

COURSE DURATION:
10 hours

COURSE FEES:
₹ 5000 (+ GST)

PYTHON PROGRAMMING

COURSE DETAILS

- Introduction to Python and Anaconda
- Spyder and Jupyter Notebook
- Understanding Python Data Structures
  - List, Tuple, Dictionary, Sets
  - Mutable and immutable Objects
- Numpy and Pandas Packages in Python
  - 1D, 2D, 3D Array
  - Series and Dataframe
- Data Import – Export using PANDAS
- Data Manipulation
  - Selecting Rows / Observations
  - Selecting Columns / Fields
  - Merging Data
  - Relabeling the Column Names
  - Converting Variable Types
  - Data Sorting
  - Data Aggregation
- Matplotlib and Seaborn packages
  - Charts & Graphs

COURSE DURATION:
10 hours

COURSE FEES:
₹ 7000 (+ GST)

MS EXCEL

COURSE DETAILS

- Introduction to MS Excel Spreadsheet
- Cell Referencing in Excel
- Formatting Text
- Autofill and Format Painter
- Cell Merging
- Insert Columns and Rows
- if, sumif, countif, sumifs, countifs
- vlookup, index, match, offset
- Data Validation in Excel
- Conditional Formatting
- Pivot tables
- Freeze Panes
- Top 10 short-cuts in Excel

EXCEL WEBINAR LINK:

Basic Excel Webinar

Advanced Excel Webinar

COURSE DURATION:

04 hours

COURSE FEES:

₹ 3000 (+ GST)

SQL

COURSE DETAILS

- Introduction to SQL
- Understanding the concept of Data
- Applications – OLTP and OLAP
- DDL, DML and DCL
- CRUD Operation
- CREATE, INSERT, UPDATE, DELETE SQL Queries
- SELECT Query
- Concept of Normalization and Denormalization

COURSE DURATION:
04 hours

COURSE FEES:
₹ 3000 (+ GST)

STATISTICS

COURSE DETAILS

- Introduction to Statistics for Data Science
- Types of Variables
- Descriptive Statistics – Numerical Methods
- Measures of Central Tendency
  - Mean, Median, Mode
- Measures of Dispersion
  - Range, Interquartile Range, Standard Deviation, Variance

- Descriptive Statistics – Tabular & Graphical Methods
  - Histogram, Line Plot, Bar Plot, Pie Chart
  - Box Plot, Scatter Plot
  - Frequency Table, Crosstab

- Probability Concepts
- Distributions
  - Normal Distribution
  - Binomial Distribution
- Central Limit Theorem
- Hypothesis Testing

COURSE DURATION:
20 hours

COURSE FEES:
₹ 14000 (+ GST)

UN-SUPERVISED MACHINE LEARNING CLUSTERING, PCA, AND FACTOR ANALYSIS

COURSE DETAILS

- Clustering
  - Why Clustering? What is Clustering?
  - Measure of Similarity, Distance Measures
  - Hierarchical Clustering
  - K Means Clustering
  - Finding Optimal No. of Clusters

- Principal Component Analysis (PCA) & Factor Analysis
  - Why PCA? – Dimensionality Reduction
  - Factor Analysis
  - PCA vs FA
  - Eigen Vector and Eigen Value
  - Loading Factor
  - Principal Components (PC) and PC Score

- PROJECTS
  - Clustering of Retail Customers
  - PCA & FA on Data Scientist student's data

COURSE DURATION:
10 hours

COURSE FEES:
₹ 7000 (+ GST)

SUPERVISED MACHINE LEARNING
LINEAR REGRESSION

COURSE DETAILS

- Introduction to Linear Regression
- Assumptions of Linear Regression
- Simple Linear Regression
- Multiple Linear Regression
- Line of Best Fit
- Residual Error, SSE
- R-Squared & Adj, R-Squared
- Correlation & Multi-Collinearity
- Variance Inflation Factor
- Homoscedasticity & Heteroscedasticity
- Variable Transformation and its Importance

- PROJECTS
  - Build a Linear Regression Model to Estimate Monthly Household Expense

BLOG LINK:
[Linear Regression blog series]

COURSE DURATION:
08 hours

COURSE FEES:
₹ 6000 (+ GST)

SUPERVISED MACHINE LEARNING
LOGISTIC REGRESSION

COURSE DETAILS

- Introduction to Logistic Regression
- Log Odds Concept and Logistic Function
- Development, Validation and Hold-out
- Hypothesis Testing
- Outlier Treatment & Missing Value Imputation
- Information Value
- Pattern Detection and Visualization
- Variable Transformation
- Weight of Evidence
- Multi-Collinearity & Variance Inflation Factor (VIF)
- Model Development & Validation
- Model Performance Measurement
  - KS, Rank Order, Lift Chart, AUC-ROC, Gini, Concordance, Hosmer-Lemeshow Goodness of Fit Test
- PROJECTS
  - Personal Loans Cross-Sell Model using Logistic Regression Technique

BLOG LINK:

Logistic Regression blog series

COURSE DURATION:

10 hours

COURSE FEES:

₹ 10000 (+ GST)

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SUPERVISED MACHINE LEARNING K NEAREST NEIGHBOURS & NAIVE BAYES

COURSE DETAILS

- K Nearest Neighbours
  - What is KNN?
  - KNN Concept and Distance Measures
  - Lazy Learning
  - KNN Optimization Algorithms
  - Ball Tree and KD Tree
  - Advantages and Disadvantages

- Naive Bayes
  - Bayes Theorem
  - Naive Bayes Derivation
  - Naive Bayes Algorithms
  - Bernoulli, Multinomial and Gaussian Naive Bayes
  - Advantages and Disadvantages

- PROJECTS
  - Missing Value Imputation using KNN technique
  - Predictive Model Development using Naïve Bayes

COURSE DURATION:
04 hours

COURSE FEES:
₹ 3000 (+ GST)

SUPERVISED MACHINE LEARNING CLASSIFICATION TREE

COURSE DETAILS

- Introduction to Classification Tree
- CHAID, CART, C4.5
- Greedy Algorithm
- Balanced & Unbalanced Data
- CART – Gini Gain Calculation
- Binary / Multi-way Split
- Pruning
- Cross-Validation
- Overfitting
- Model Development & Evaluation
- Pros & Cons of Classification Tree Technique

- PROJECTS
  - Case-Study – Dormant Account Win-back Model
  - Classification Tree Model Development on Balanced Dataset

BLOG LINK:
Retail Banking Case-Study

COURSE DURATION:
10 hours

COURSE FEES:
₹ 7000 (+ GST)

SUPERVISED MACHINE LEARNING
BAGGING & BOOSTING

COURSE DETAILS

- Bagging – Random Forest
  - Concept of Ensemble Modeling
  - What is Bootstrapping
  - Random Forest Algorithm
  - Out of Bag Error
  - Tuning the Random Forest Model
  - Variable Importance
  - Model Evaluation and Performance Measure

- Boosting
  - What is Boosting
  - AdaBoosting Algorithm Explained
  - Boosting Model Development
  - Hypergrid Tuning
  - Model Evaluation and Performance Measure

- PROJECTS
  - Model Development on Banking Dataset
  - Comparing the Model Performance of Boosting and Bagging Model

COURSE DURATION:
12 hours

COURSE FEES:
₹ 8500 (+ GST)

SUPERVISED MACHINE LEARNING ARTIFICIAL NEURAL NETWORK

COURSE DETAILS

- Artificial Neural Network Overview
- Artificial NN vs Biological NN
- Single / Multi-Layer NN
- Neurons & Activation Functions
- Cost Function
- Backpropagation with Gradient Descent
- Delta Rule, Learning Rate
- Building an Artificial Neural Network
- Model Performance Measures
- Model Implementation Strategy

- PROJECTS
  - Credit Default Model using Keras with Tensorflow

COURSE DURATION:
06 hours

COURSE FEES:
₹ 8000 (+ GST)

COMPUTER VISION
WEB SCRAPING, NLP, IMAGE PROCESSING

COURSE DETAILS

- Web Scraping
  - What is Web Scraping?
  - Why Web Scraping?
  - Web Scraping Process
  - Web Scraping using Selenium, BeautifulSoup, lxml packages

- Natural Language Processing
  - Python and NLP Text Basics
  - Text Mining using Regular Expressions

- Image Processing
  - Concept of Image as Signal
  - Image Processing Basics
  - Zooming, Blurring, Smoothing, Gray Scaling, Thresholding, Edge Detection
  - Image Processing using Python OpenCV package

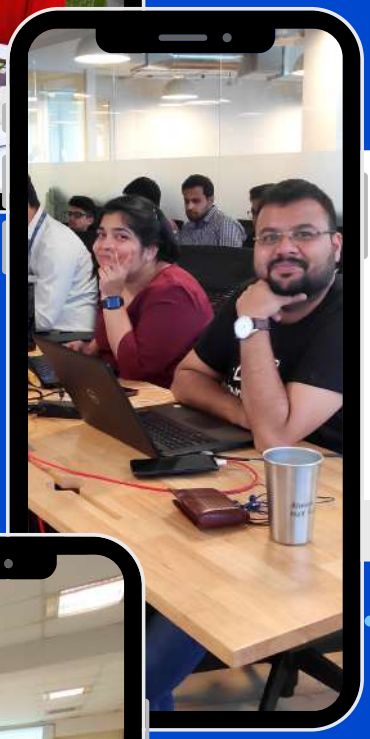
- PROJECTS
  - Web Scraping Google Search results
  - Applying Regular Expression to extract information for Search Results
  - Number Plate Recognition using OpenCV and Web Scraping vehicle information from Vahan Database

COURSE DURATION:
20 hours

COURSE FEES:
₹ 15000 (+ GST)

RECENT TRAINING & SESSIONS

NL DALMIA



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