B. K. BIRLA COLLEGE OF ARTS, SCIENCE AND COMMERCE (AUTONOMOUS), KALYAN

CERTIFICATE COURSE



Data Science for Engineers-Online

Week 1: Course philosophy and introduction to R

Week 2: Linear algebra for data science

- 1. Algebraic view vectors, matrices, product of matrix & vector, rank, null space, solution of over-determined set of equations and pseudo-inverse)
- 2. Geometric view vectors, distance, projections, eigenvalue decomposition

Week 3: Statistics (descriptive statistics, notion of probability, distributions, mean, variance, covariance, covariance matrix, understanding univariate and multivariate normal distributions, introduction to hypothesis testing, confidence interval for estimates) Week 4: Optimization

Week 5:

- 1. Optimization
- 2. Typology of data science problems and a solution framework

Week 6:

- 1. Simple linear regression and verifying assumptions used in linear regression
- 2. Multivariate linear regression, model assessment, assessing importance of different variables, subset selection

Week 7: Classification using logistic regression

Week 8: Classification using kNN and k-means clustering

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, https://nptel.ac.in/noc/

Roll No: NPTEL21CS69S13941133

To MAYUR DURYODHAN MANE 40/683 EWS KOKAN VASAHAT NEAR BIRLA COLLEGE KALYAN WEST KALYAN MAHARASHTRA - 421301 PH. NO :9987469765

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Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:2

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



NPTEL Online Certification (Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

MAYUR DURYODHAN MANE

for successfully completing the course

Data Science for Engineers

with a consolidated score of **58**

Online Assignments 21.63/25 Proctored Exam 36.45/75

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Total number of candidates certified in this course: 2140



Roll No:NPTEL21CS69S13941133

Jul-Sep 2021 (8 week course) Prof. Andrew Thangaraj NPTEL, Coordinator IIT Madras



Indian Institute of Technology Madras



To validate and check scores: https://nptel.ac.in/noc