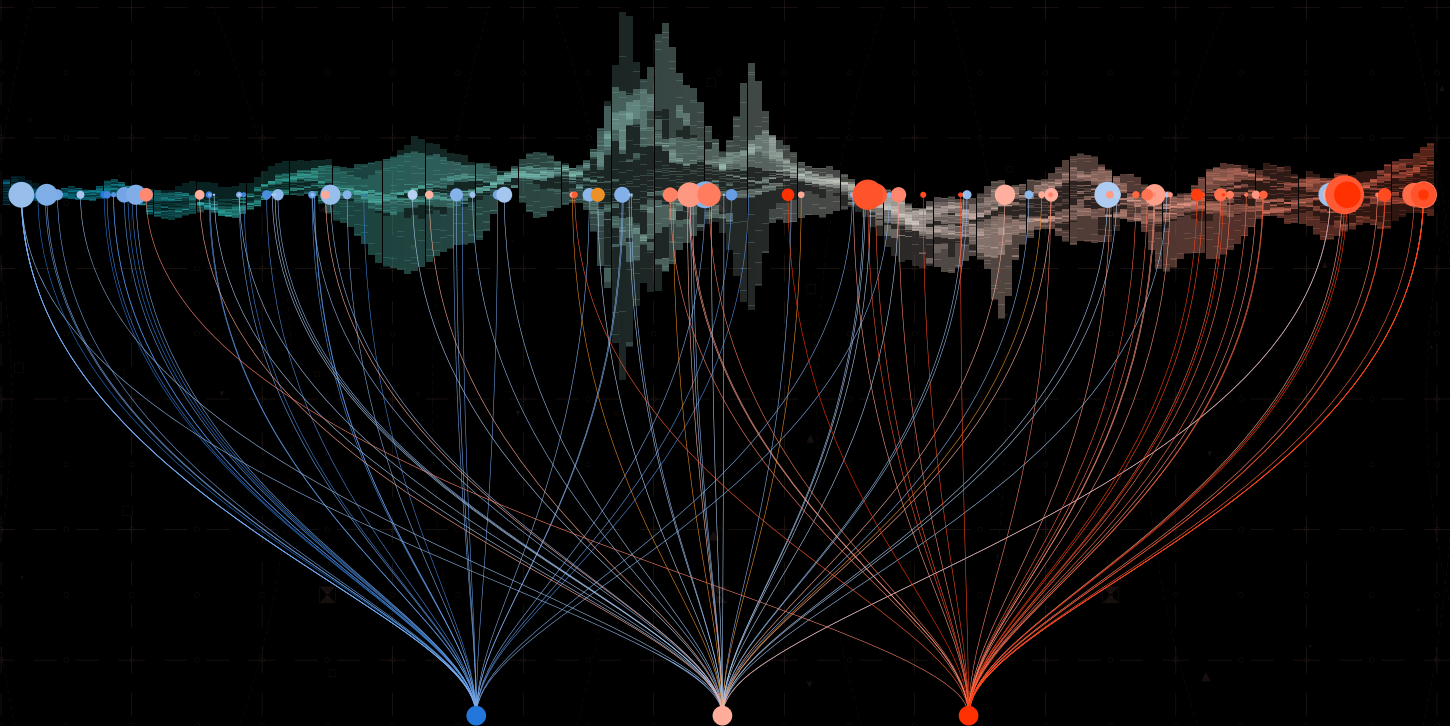




IIT PALAKKAD

PROFESSIONAL CERTIFICATE PROGRAMME IN **APPLIED DATA SCIENCE**

STARTS ON SEPTEMBER 30, 2021 | 7 MONTHS



OVERVIEW

DATA: THE KEY TO BUSINESS BREAKTHROUGHS TODAY

Data is an integral part of any modern business. Collating, understanding and analysing data helps you build winning strategies which begets happier customers, stronger growth and content employees. Even in the current climate, the demand for data science professionals is at an all-time high.

The **Indian Institute of Technology, Palakkad**, in collaboration with **Eruditus**, has designed the **Executive Certificate Programme in Applied Data Science**. With a focus on upskilling the participant on Python, the world's #1 programming language, and Data Engineering, this programme is curated for professionals interested in building a career in Data Science. This is a unique programme which will build your expertise through concepts and real-world cases. This will upgrade your resume and propel your career to new heights.

STARTS ON

SEPTEMBER 30, 2021

DURATION

7 MONTHS

FORMAT

ONLINE VIDEO LECTURES AND
3 LIVE SESSIONS WITH FACULTY

PROGRAMME FEE

INR 61,500 + GST

2020

saw a huge demand for data science jobs with as many as 2,50,000 being vacant.

(Quanthub, 2020)

In 2021,

92% organisations report that their pace of Big Data / AI investment is accelerating, up 40% from 2020.

(New Vantage Partners
Executive Survey, 2021)

By 2025,

The Data Science and Analytics industry is expected to be worth 16 billion USD.

(Analytics Insight, 2020)

WHO IS THIS PROGRAMME FOR?

CALLING THOSE WHO AIM TO MAKE A BREAKTHROUGH

IIT Palakkad's programme in Applied Data Science is for professionals who want to understand the inner working of the world of Data Science to give them an advantage in the market.

This programme is ideal for early and mid-level professionals keen to upskill and gain cutting-edge knowledge in Data Science to give them an opportunity to make a career shift or to help them accelerate their careers.

Additionally, the Applied Data Science programme is aimed at executives overseeing software development who are looking to equip themselves with an up-to-date understanding in Data Science practices.



PROGRAMME COORDINATOR

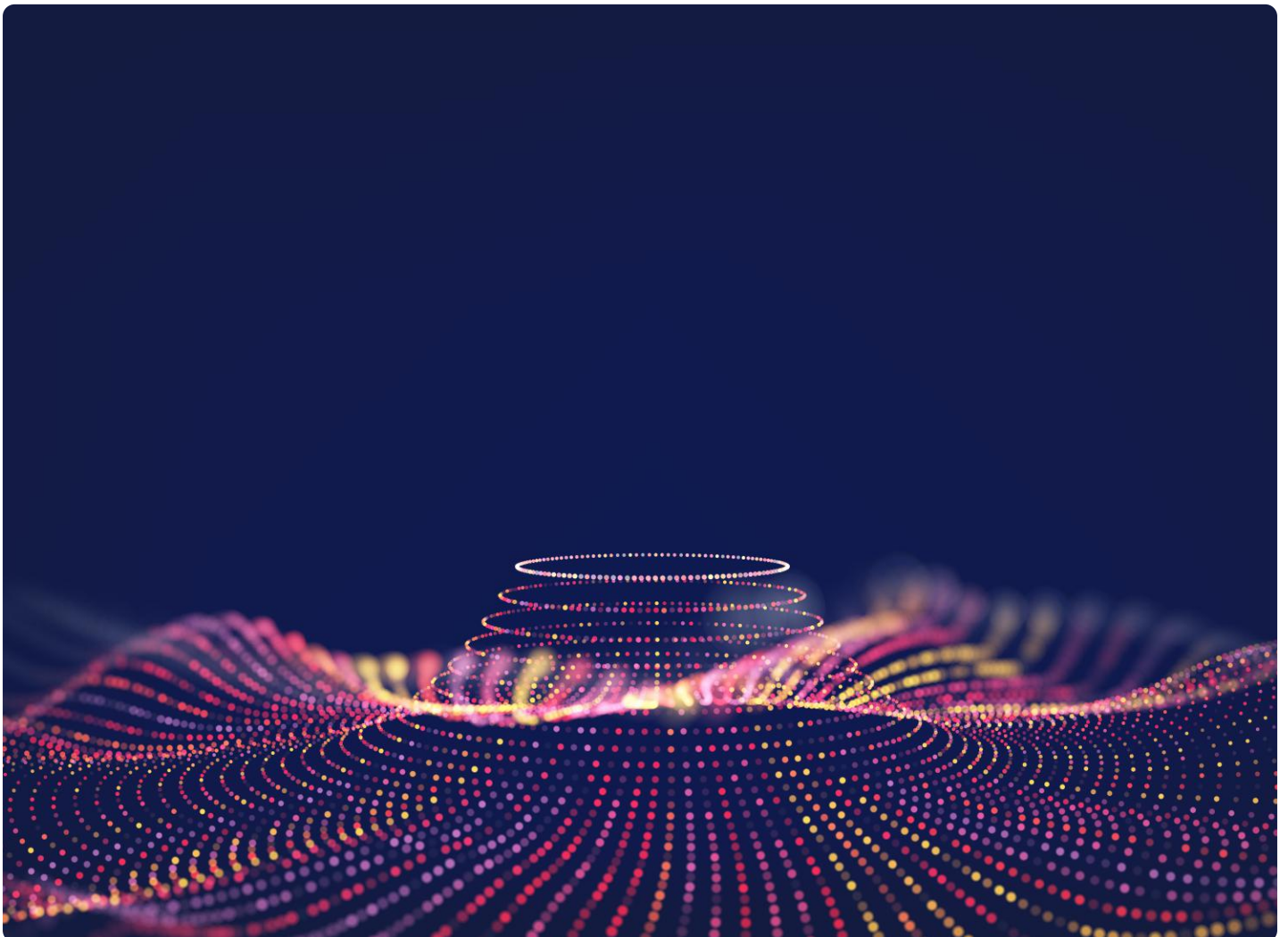
FIND YOUR BREAKTHROUGH PATH



Dr. Satyajit Das

Assistant Professor, Computer Science and Engineering
Indian Institute of Technology Palakkad

Dr Satyajit is one of the founding members of the Center for Research and Education in Data Science (CREDS) and Lab for Advanced VLSI and Artificial Intelligence (LAVA) at IIT Palakkad. He earned his joint Ph.D. degree from the University of South Brittany, France, and the University of Bologna, Italy. His research interests are Computer Architecture, AI on Edge, and near-sensor Data Analytics.



PROGRAMME FACULTY

BREAKTHROUGH CAREERS NEED THE RIGHT MENTOR



Dr. Mrinal Kanti Das

Assistant Professor, Computer Science & Engineering
Indian Institute of Technology Palakkad

Dr. Mrinal Das works in the area of building hierarchical Bayesian models with applications in various domains. He is also actively working in privacy aware learning. His recent area of interest has been in Responsible AI, specially at the intersection of interpretability and deep learning. He obtained a PhD degree in Machine Learning from Indian Institute of Science (IISc) Bangalore in 2016. He was a postdoctoral fellow at Aalto University, Finland and UMass Amherst, USA before joining IIT Palakkad as Assistant Professor in the CSE department in 2017. He has published in top notch venues in ML such as ICML(2), AAAI, ICDM, CIKM, WSDM. He is currently supervising one PhD and two MS students in the area of ML. He has received SERB startup research grants in 2019 to work in ML. He has developed and taught several courses in the area of Data Science for the last four years. He is also actively associated with the Govt. of Kerala for training students in the domain of data science.



Dr. Sahely Bhadra

Assistant Professor, Computer Science and Engineering
Indian Institute of Technology Palakkad

Dr. Sahely serves as an Associate with the Centre for Research and Education on Data Science (CREDS). She received her PhD from the Indian Institute of Science (IISc) Bangalore. She has more than 10 years of experience working in the broad area of Machine Learning and Optimisation. Her areas of interest lie in multi-view kernel learning from noisy incomplete data with structural properties and extreme event analysis in time series data. Dr. Sahely has published in top venues in ML and bioinformatics such as ICML, JMLR, MLJ, ICDM, Bioinformatics.

PROGRAMME HIGHLIGHTS

STEPPING-STONES TO A BREAKTHROUGH CAREER



3 Live Sessions with Programme Faculty

121 Video Lectures and Demos



56 Assignments and Discussions

Office Hours with an Industry Expert



Peer Learning and Feedback

Dedicated Programme Support



7-month programme.
4-6 hours of weekly learning effort

***With the COVID-19 pandemic disrupting organizations,
the demand for rising innovations like data science
has accelerated further.***

- Analytics Insight 2020

LEARNING OUTCOMES

BREAKTHROUGH LEARNING PREPARES YOU FOR A DIFFERENT FUTURE

Clean, optimise and interpret raw data using various data engineering tools



Solve a real-life classification problem using machine learning tools and techniques

Gain mastery over cutting-edge data science tools such as Python and Excel



Carry out Social Network Analysis and make recommendations

PROGRAMME MODULES

IT'S TIME TO BREAK THROUGH DATA

MODULE 01 : STATISTICS FOR DATA SCIENCE

- Probability - Joint, Conditional, Marginal
- Probability Distributions
- Univariate Analysis
- Bivariate Analysis
- Multivariate Analysis
- Sample and Population
- Sampling Techniques
- Sampling Size Calculations
- Correlation, Covariance and Interquartile Ranges
- Inferential Analysis-Hypothesis Testing

MODULE 02 : PYTHON FOR DATA SCIENCE

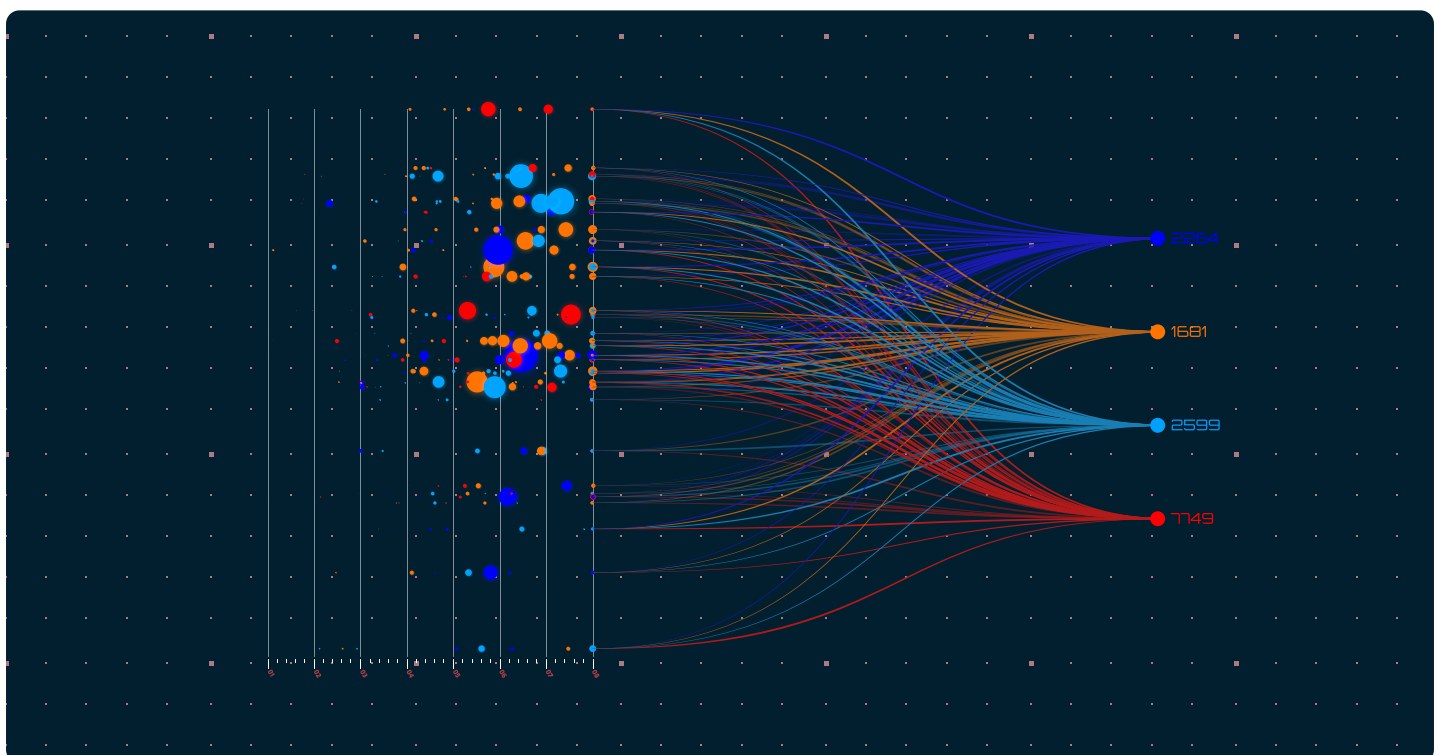
- Introduction to Data Science
- Working with Data Types and Operators in Python
- Writing Functions in Python
- Popular Data Science Packages in Python
- Advanced Functions
- Data Manipulation and Analysis with Pandas
- Data Visualization with Matplotlib
- Random Variables and Statistical Inferences
- Statistical Distributions and Hypothesis Testing
- Data Cleaning
- Exploratory Data Analysis
- Getting Started with Linear Algebra for Machine Learning

MODULE 03 : APPLIED DATA SCIENCE

- Data Engineering
- Data Storage
- Data Visualization
- Classification and Decision Trees
- Linear and non - linear regression
- Evaluating Data Models
- Time series analysis forecasting
- Clustering Models
- Exploratory Data Analysis
- Topic Model
- Text Analysis
- Social Network Analysis

There are two types of talent deficits: Data Scientists, who can perform analytics and Analytics Consultant, who can understand and use data. The talent supply for these job titles, especially Data Scientists is extremely scarce, and the demand is huge.

- Srikanth Velamakann, Co-founder and CEO of Fractal Analytics



LEARNING JOURNEY



ORIENTATION WEEK

The first week is orientation week. During this week you will be introduced to the other participants taking part in the programme. You will learn how to use the learning management system and other learning tools provided.



WEEKLY GOALS

On other weeks, you have learning goals set for the week. The goals would include completing the assignments, which have weekly deadlines.



FLEXIBLE & CONVENIENT ONLINE LEARNING

Learn online via recorded videos from top IIT Palakkad faculty and 3 live sessions in a high-impact seven-month journey with a learning commitment of 4 - 6 hours/week.



DEBRIEF SESSIONS

The Eruditus Programme Leaders are industry experts who are available for live online session every week or every alternate week.



TIMELY FOLLOW UP & LEARNING SUPPORT

The Eruditus Programme Support team will follow up over emails and phone calls with learners who are unable to submit their assignments on time.

WHAT IS THE PROGRAMME CERTIFICATE?

Certificate of completion will be awarded to participants who secure a minimum of 40% marks in the end-semester evaluation.



Note: All certificate images are for illustrative purposes only and may be subject to change at the discretion of IIT Palakkad.



PROGRAMME DETAILS

PROGRAMME FEE INR 61,500 + GST

INSTALMENT SCHEDULE

	Remarks	Amount
Booking Amount	Within 7 days post selection	INR 15,500 + GST
Instalment I	Nov 15, 2021	INR 23,000 + GST
Instalment II	Jan 15, 2022	INR 23,000 + GST

Note:

- Admissions are on a first-come, first-serve basis. There might not be subsequent rounds if seats are filled in the initial rounds.

ELIGIBILITY

Graduate or Diploma Holder
(10+2+3)

PROGRAMME FORMAT

Online Video Lectures and
3 Live Sessions with Faculty

APPLICATION REQUIREMENTS

YOUR GRADUATION/DEGREE:

You can submit a scanned copy of ANY ONE of: Degree certificate, provisional Degree certificate, marks transcript or score transcript.

PROGRAMME APPLICATION LINK

[Click here](#) to apply to the programme.

Finance options available. [Click here](#) to learn more.

For more information, please email at iitpkd@eruditus.com

Note:

- In case a programme session corresponds with a public holiday, the session would be held on the following day.
- The actual programme schedule will be announced closer to the programme start.

ABOUT IIT PALAKKAD

Established in 2015, the Indian Institute of Technology Palakkad is dedicated to creating an environment that enables students and faculty to engage in the pursuit of knowledge, to dream, think and innovate thereby becoming an agent of change to better the world. Beginning with a humble student strength of 120 back in July 2015, IIT Palakkad has now grown into an establishment which is 1000 students strong with the best of manpower in its key positions. IIT Palakkad targets to become a multi-disciplinary institution with a population of 5000 students in 10 years. IIT Palakkad recognizes collective growth, in collaboration with industry and other academic institutions, as the need of the time and emphasizes blue-sky research and directed research as two essential pillars of technology development. IIT Palakkad embraces a vision to be a leader in cross-disciplinary inquiries which is embodied in the tagline of the institute **“Nurturing minds for a better world”**.

ABOUT ERUDITUS


Eruditus Executive Education offers customised and open programmes in India, Singapore, Dubai and other global locations in collaboration with MIT Sloan, Columbia Business School, INSEAD, Harvard Business School (HBS), Kellogg Executive Education, Berkeley Executive Education, Wharton Executive Education, IIM Lucknow Executive Education, IIM Calcutta Executive Education and Emeritus. Our world-class executive education programmes, supported by eminent programme experts, provide an immersive learning experience integrated with actionable insights and practical business applications. The meticulously curated programmes are delivered in a different range of formats; in-class, online, as well as blended programmes. Our extensive portfolio also includes short 2-4 day in-class workshops, online courses of 2-3 months duration as well as comprehensive learning journeys that run over 6-9 months, customised to an organisation's requirement.



Apply for the programme here

APPLY NOW

For registration and any other information,
please get in touch with us at iitpkd@eruditus.com

 **WhatsApp an Advisor On +91 7208889990***

* This number does not accept any calls. Please message your queries.

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