



भारतीय प्रबंध संस्थान कोषिकोड  
Indian Institute  
of Management  
Kozhikode

*Globalizing Indian Thought*

jaro education

**Revolutionize Analytics and Business Intelligence**

Professional Certificate Programme in

# Advanced Analytics & Business Intelligence Programme

**IIM Kozhikode**



# BI and Analytics Market Growth

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**Business Intelligence Market is forecasted to reach USD 73.57 Billion at a CAGR of 13.1% by 2030.**

\*Global NewsWire

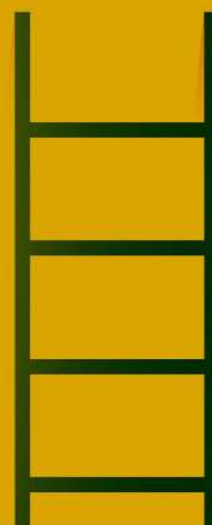
**67% of the global workforce has access to business intelligence tools.**

\*Accenture

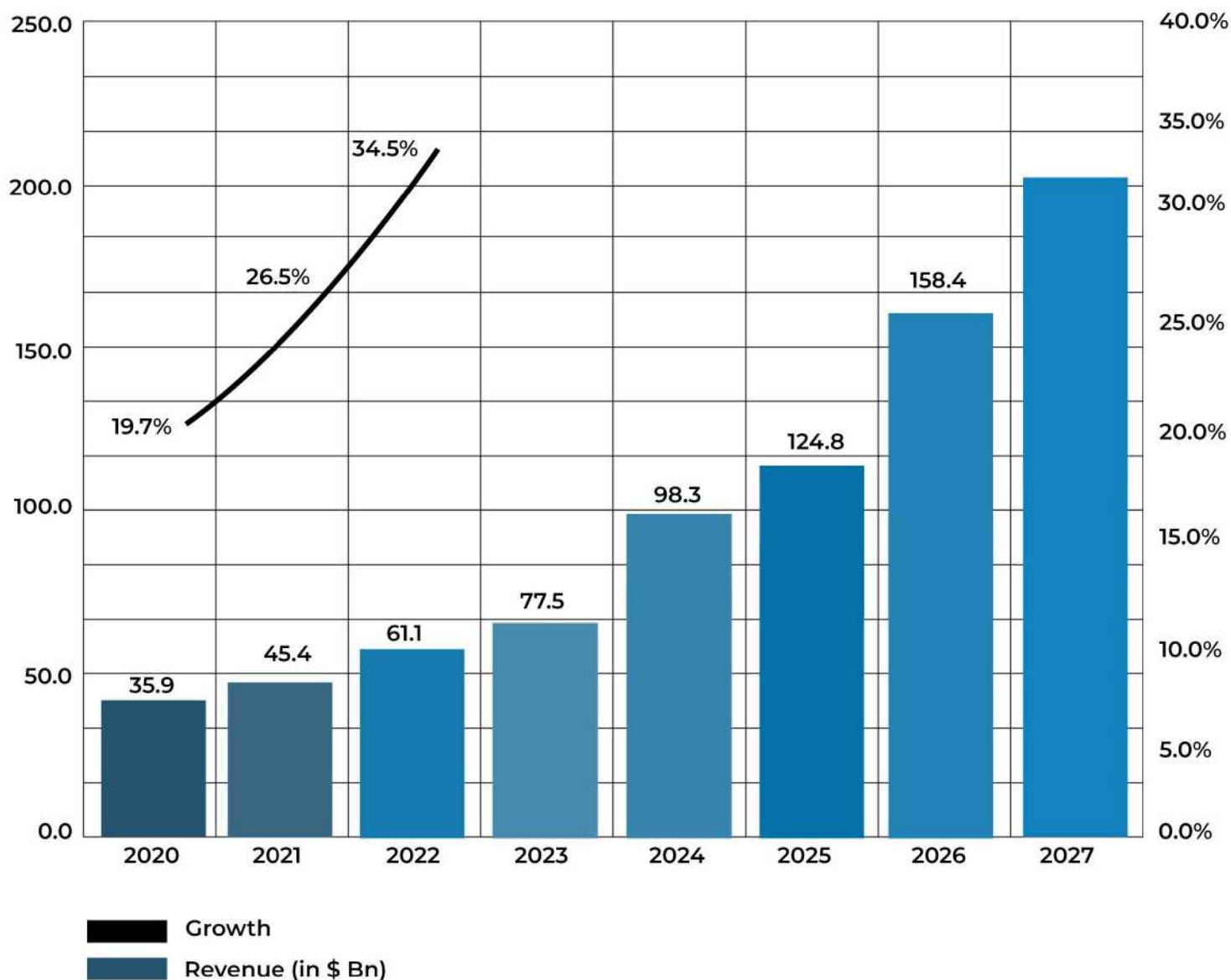
**Business Intelligence and Analytics Market size was valued at USD 31.39 Billion in 2022 and is projected to reach USD 72.32 Billion by 2030, growing at a CAGR of 8.45% from 2023 to 2030.**

\*Market Research

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# Analytics India Market Projection





# Hear From the Director's Desk



In today's data-driven world, there is an ever-increasing demand for professionals who can effectively analyze data and turn it into valuable insights for businesses. To meet this demand, the Indian Institute of Management Kozhikode has developed the Professional Certificate Programme in Advanced Analytics & Business Intelligence. IIM Kozhikode programmes designed by world-class faculty with their cutting-edge thought leadership and industry-leading insights empower participants to manage and lead complex business challenges with confidence and data-driven, informed decision-making ability. Our growing global footprints acknowledged and accredited by leading institutions of the world are a testimony to growth we have achieved in our 25-year journey of academic excellence.

At this juncture, it is also pertinent to share that both future and past are integral to the path taken by an institution on this journey of excellence. Having a wide, far-seeing vision is not an indulgence but an activity that is necessary to give meaning to our present, to give this Institution a sense of purpose, direction and imagination. That is why we have chosen to think in terms of what IIM Kozhikode will be able to contribute to India and the world some three decades from now with 'Vision 2047: Globalizing Indian Thought'. The Institute has set for itself a pre-eminent role with the above motto. The sheer scale, scope and potential impact that India will have on 21st-century business makes us believe that this is a legitimate aspiration.

Strike the perfect balance between analytics, business intelligence and data science skills by pursuing the Professional Certificate Programme in Advanced Analytics & Business Intelligence by IIM Kozhikode.

**Wishing you all the very best!**

A handwritten signature in black ink that reads "Debashis Chatterjee".

**Prof. Debashis Chatterjee**  
**Director IIM Kozhikode**

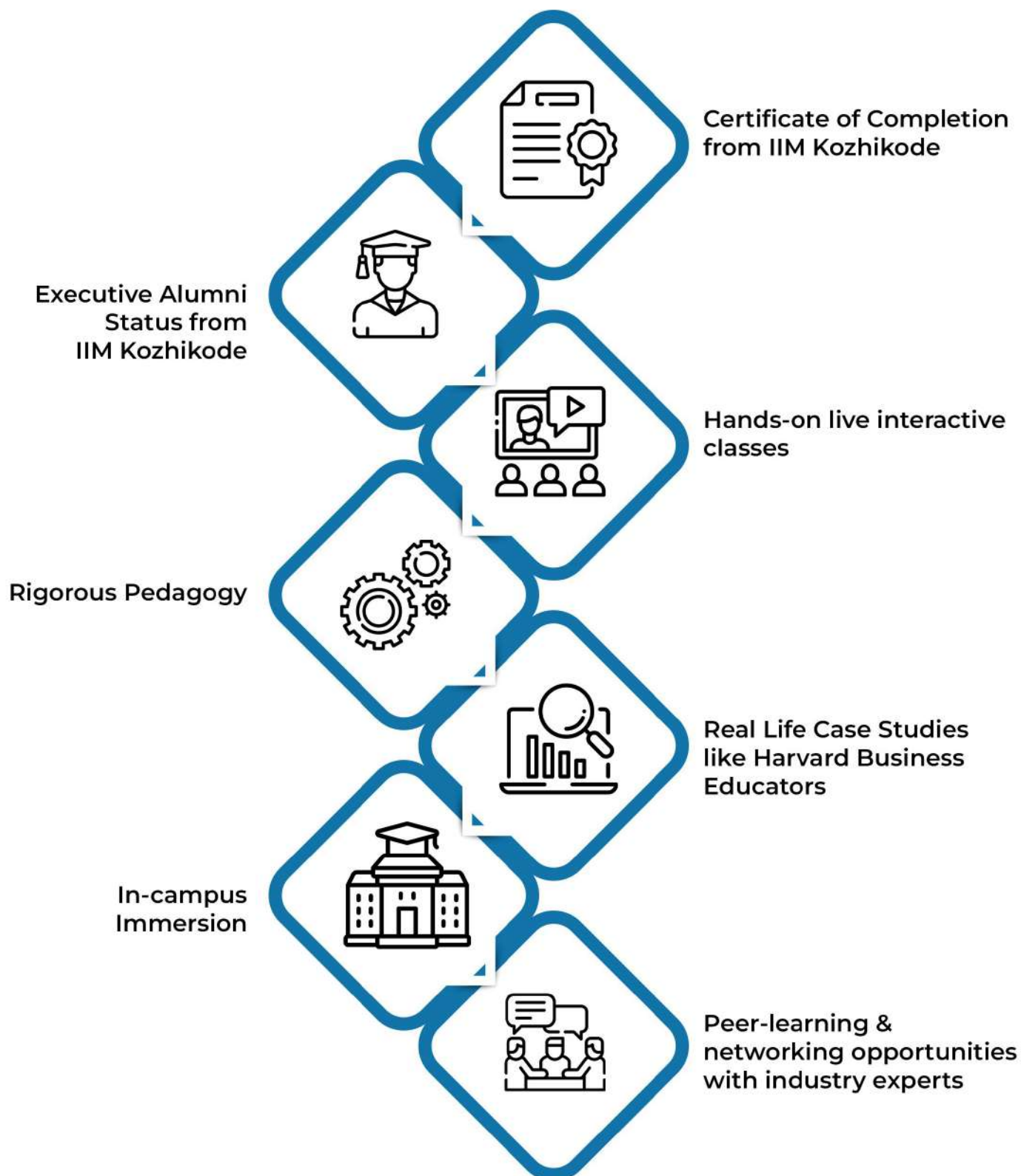
# Programme Overview

In the face of volatility, professionals are finding opportunities to accelerate analytics and business intelligent resiliency for mapping and scaling their businesses. Strengthen your calibre in analytics and BI with a Professional Certificate Programme in Advanced Analytics & Business Intelligence at the IIM Kozhikode, designed for practitioners working in business management and other allied areas and provides essential business analytics and data science skills. The programme content is designed to upskill data-driven decision-making, with an orientation of minimum disruption to professional responsibilities. The focus will be on the practical implementation of the techniques and tools with a minimalistic technical and mathematical perspective. This career-enriching programme provides rigorous theoretical, practical and hands-on training on various data handling techniques, programming using compelling software programmes (e.g., Tableau, R and Python), statistics, machine learning, deep learning and its business applications. This programme employs a combination of hands-on live interactive classes and on-campus immersive learning to strike a balance between classroom and technology-aided instruction.





# Programme Highlights



# Programme Content

## Module 1: Understanding data and visualizing using Tableau

- Types of data and descriptive statistics
- Tableau environment and its understanding
- Basic data visualisation using graphical techniques
- Advanced tableau implementation and dashboard

## Module 2: Implementing Python for data analysis

- Understanding the python environment (Jupyter notebook and google collaboratory).
- Basic data handling and functions
- Advanced functions in Python
- Data visualization using Python

## Module 3: Understanding R for data analytics

- R studio and its environment understanding
- R for basic data handling
- Advanced data exploration and data handling

## Module 4: Understanding statistics and its implementation

- Introduction to statistics and its fundamentals
- Inferential statistics
- Test of hypotheses for business decisions

## Module 5: Advanced Data exploration using R and Python

- Data exploration for advanced modelling
- Data cleaning and other treatments
- Examining the readiness of the data by checking assumptions
- Data transformation for advanced modelling

## Module 6: Implementing unsupervised learning algorithms in various business applications

- Cluster analysis and its applications
- PCA for data reduction
- Association rule mining and recommendations system: application
- RFM analysis

## Module 7: Implementing supervised learning algorithms in various business applications

- Linear regression for prediction
- Implementing predictive algorithms for classification and regression
- Logistic regression for classification and prediction
- Implementing algorithms such as decision tree, KNN, Naïve Bayes, random forest, and boosting

## Module 8: Implementing deep learning in various business applications

- Understanding deep learning for business application
- ANN for business application
- Applying CNN
- Applying RNN

## Module 9: Applying time series for business applications

- Applying univariate and multivariate time series forecasting
- ARIMA, SARIMA, SARIMAX
- Structural time series modelling
- Facebook Prophet and ensemble models.

## Module 10: Text mining and unstructured data analysis in business

- Text mining for supervised learning and its applications
- Text mining for un-supervised learning and its applications

**Note:**

The above list is indicative and is subject to IIM Kozhikode's discretion.

The content provided in every module provides a brief summary. The detailed course handout will be provided upon request.



# Pedagogy

Live online classes through Zoom, where concepts will be discussed through case studies with real-life datasets.

- **Data Driven Assignment**
- **Doubt & Clarification Sessions**
- **Group & Individual Activity**
- **Hands-on Experience**
- **Capstone Project — rooted in case studies**
  - Based on the learning, the foundation of the capstone project is rooted in case studies.
- **Interactive Session from Industry Speakers— Data Science**
- **Exam format**
  - Assignment, Capstone, Class Participation, Attendance
  - No Written Examination
- **Basis statistics to Advanced Analytics**

## Explore key Case studies

Package Pricing at  
Mission Hospital  
(IMB527-PDF-ENG)

Predicting Net  
Promoter Score  
(NPS) to Improve  
Patient Experience  
at Manipal Hospital

Improving Lead  
Generation at  
Eureka Forbes  
Using Machine  
Learning  
Algorithms

Retention  
Modeling at  
Scholastic Travel  
Company

# Learning Outcomes

- Master high-demand data science and analytics languages.
- Enhance decision-making skills by utilizing various data management tools.
- Develop an understanding of executing data-driven projects in business cases.
- Acquire a strong conceptual and practical foundation in leading data science and analytics tools.

## Explore Tools and Technological Covered

### ► Data Visualization Technique    ► Programme Tools



## Programme Details

|                                   |  |
|-----------------------------------|--|
| • <b>Duration</b>                 | • 1 year   |
| • <b>Mode of Engagement</b>       | • Direct to Device   |
| • <b>Total 140 Learning Hours</b> | <ul style="list-style-type: none"><li>• 128 Hours of Live Interactive Online Classroom</li><li>• 12 Hours of In Campus Immersion at IIM Kozhikode</li></ul>                                      |
| • <b>Schedule</b>                 | <ul style="list-style-type: none"><li>• Session Timings<br/>Sunday, 6:45 pm to 9:45 pm</li><li>• Application Closure Date:<br/>Closing Soon</li><li>• Commencement Date:<br/>July 2023</li></ul> |



# Admission Criteria

- ◆ Selections will be based on candidates' profiling.

## Eligibility Criteria

- ◆ For Indian Participants- Graduates (10+2+3) or Diploma Holders (only 10+2+3) from a recognized university (UGC/AICTE/DEC/AIU/State Government/ recognized international universities) in any discipline.
- ◆ Minimum of 1 year of work experience (after graduation) as on the programme date, i.e. technical orientation date.

## Assessment & Evaluation

- ◆ The evaluation methodology is at the discretion of the faculty. The methodology includes online quizzes, case analysis, class contribution, assignments, and any other component as decided by the faculty. A minimum of 75% attendance is a prerequisite for the successful completion of this programme. The participants will have to secure the minimum pass marks in the evaluation components specified by the faculty.
- ◆ Participants who successfully complete the same and satisfy the requisite attendance criteria will be awarded a 'Certificate of Completion.' Participants who are unable to clear the evaluation criteria but have the requisite attendance will be awarded a 'Participation Certificate.'
- ◆ The programme may require participants to work on individual/group assignments and or projects. The main objective of such assignments/projects will be to help the participants apply their conceptual learning of the programme to actual organizational decision scenarios.



# Fees & Instalment Pattern

| Application Fees  | Total Fees<br>(excluding Application fees) |
|-------------------|--|
| INR 2,000/- + GST | INR 2,00,000/- + GST                       |

| Instalment Pattern |   |
|--------------------|---|
| Particulars        | Instalment Amount   |
| Instalment 1       | INR 80,000 + GST<br>as per the date mentioned in the offer letter |
| Instalment 2       | INR 60,000 + GST  |
| Instalment 3       | INR 60,000 + GST  |

Easy EMI Options Available





# Certificate

- Participants who successfully meet the evaluation criteria and satisfy the requisite attendance criteria will be awarded a 'Certification of Completion.'
- Participants who are unable to clear the evaluation criteria but have requisite attendance will be awarded a 'Participation Certificate.'
- "Professional Certificate Programme in Advanced Analytics & Business Intelligence" Certificate will be provided by IIM Kozhikode.



# Know The Facilitator



## **Prof. Sreejesh S** **Programme Chair and Associate** **Professor, Marketing Management**

Ph.D. [IBS Hyderabad, AACSB Accredited]  
MPhil [ICFAI University, Tripura]  
MBA [Anna University, Chennai]  
MA Economics [University of Kerala, Trivandrum]

Sreejesh S is an Associate Professor of Marketing at the Indian Institute of Management Kozhikode, India. His research is published in prominent outlets such as Industrial Marketing Management, European Journal of Marketing, Journal of Business Research, Journal of Advertising Research, Computers in Human Behaviour, Journal of Brand Management, Journal of Product and Brand Management, Journal of Service Theory and Practice, and many others. He serves on the editorial board of the International Journal of Consumer Studies and has authored books with Pearson and Springer International. He is involved in several executive training programs for various companies, and coordinates and delivers lectures for short and long-duration executive certificate programmes at IIM Kozhikode.





# Career Assistance

## Profile Building

Rigorously building the candidate's profiles and resume scrutinizing with their LinkedIn profiles. Jaro Education enables personalised feedback to boost overall virtual presence.

## Resume Review

Moving forward with carefully curated resumes reviews that ensures you are interview-ready for the workplace of tomorrow.

## Placement Assistance

Get career assistance as per the profile and preferences. On an average, get 5-6 job recommendations to enhance quality employment opportunities.

## Career Enhancement Sessions

Bridging connectivity to link the best talent with organizations through eminent sessions from top-class industry speakers.

### Note

IIM Kozhikode or Jaro Education do not guarantee or promise you a job or advancement in your existing position. Career services are simply provided as a service to help you manage your career in a proactive manner. Jaro Education provides the career services described here. IIM Kozhikode is not involved in any way with the career services described above and offers no commitments.





# About IIM Kozhikode



NIRF India Rankings  
2022: Management



IIM Kozhikode sole IIM  
to feature in ARIIA 2021



QS Executive MBA  
Ranking (EPGP) in  
Asia Pacific for 2021

Started in 1997 with its Postgraduate Programme (PGP), the Indian Institute of Management Kozhikode (IIMK) is on a high growth trajectory today, offering the widest range of academic programs in the field of management education. These include Doctoral Programme in Management, Executive PG Programmes, Management Development Programmes and Faculty Development Programs. IIMK set up a Satellite campus at Infopark, Kochi, in 2013 dedicated to Executive Education. IIMK has the unique distinction of launching a Ph.D. (Practice Track) programme for working professionals besides bringing in new dynamic courses in Women Leadership, one-year Post Graduate programme in Business Leadership (2019) MBA in Finance and MBA in Liberal Studies & Management (2020). The institute is also home to IIMK LIVE a first-of-its-kind startup incubation programme and the Indian Business Museum.

IIM Kozhikode aims to create a unique and futuristic space of global reckoning so as to nurture the finest management thinkers in the pursuit of developing innovative, socially responsible and environmentally friendly practitioners, leaders and educators. Strategically moving towards a better future, the Institute strives to provide holistic learning, giving equal weightage to academic solidarity and practical application. IIM Kozhikode integrates concepts with applications and values, thus transforming individuals into dependable, capable, caring and fair-minded personalities who will contribute towards the development of communities.





# About Jaro Education

**“INDIA'S MOST TRUSTED  
ONLINE HIGHER  
EDUCATION COMPANY”**

**1000+**

Corporate Associations

**3,00,000+**

Careers Transformed

**2009**

Enhancing Career Since



**2022**  
EdTech Leadership Award



**2022**  
National Best Employer Accolade



**2019**  
Economic Times Award



**2018**  
ABP Education Award



**2017**  
Modi Award

Jaro Education is India's most trusted online higher education company. The Edtech firm, a pioneer in the executive education industry, was founded in 2009 by Dr Sanjay Salunkhe and has been profit-making since its inception and is self-funded. The company has been awarded the Edtech leadership award and the National best employer accolade by World HRD Congress in March 2022. The company aims to nurture entrepreneurs & working professionals from entry-level to C-Suite level in every field and industry by offering executive education programs that cater to their requirements.



**Mr. Anand Krishnan**

Program Expert, Jaro Education



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## Jaro Education's Presence

Ahmedabad | Bangalore | Chennai | Delhi/NCR  
Hyderabad | Jaipur | Kolkata | Mumbai | Nagpur | Pune