



PG Certificate Programme in

# Cyber Security Management and Data Science

12 Months | Live Online | In-campus Immersion

IIM Nagpur Alumni Status

Marketing Partner

jaro education







Established in 2015, the Indian Institute of Management Nagpur (IIMN) aspires to be a leading management institution that shapes management systems, policy and governance through high-quality education, research and industry engagement. Propelled by the pursuit of engaged scholarship, the Institute aims to create value-driven leaders and global managers with strong conceptual foundations and analytical approaches, which helps them excel in diverse spheres – be it management, business, policymaking, and public administration, to name a few.

IIM Nagpur aims to address the needs of a modern India; connecting aspirations and realities to attain benchmarks that are respected internationally. Our motto, सत्यं च खाध्यायप्रवचने च, that is, an inspiring journey towards truth through individual reflection and collective discourse, propels our quest to bridge the gap between abstract knowledge and practice.

IIM Nagpur seeks to distinguish itself as an institution that promotes constant industry engagement of a 'problem-solving' nature. Executive Education, therefore, is an important thrust area for the Institute. With an array of programmes designed by a faculty body with a stellar record of research, teaching and industry engagement, the Executive Education programme at IIM Nagpur equips managers and executives with the capabilities to perform effectively in their current roles and take up greater challenges through various stages of their careers.

**High-quality education** 

Top-quality research

Multi-pronged industry engagement







**Dr. Bhimaraya Metri**Director, Indian Institute of Management Nagpur

I take pleasure in welcoming you to IIM Nagpur (IIMN). IIMN was established in 2015 as the first of the third generation IIMs, by the Ministry of Education, Govt. of India at the orange city Nagpur which is equidistant (in terms of travel time by air) from major metropolises – Delhi, Chennai, Kolkata, Mumbai. It is a thriving and fastest-growing city that stands positioned as the logistics capital of India, providing fertile ground for business ventures.

The striking feature of IIMN's state-of-the-art new campus, spread over 132 acres, is its location in the heart of the industrial hub within the country's first Multi-product Special Economic Zone at MIHAN, adjacent to Dr. Babasaheb Ambedkar International Airport, Nagpur. Thus, IIMN enjoys a natural advantage of being near to industry, enabling greater connections and partnerships with businesses across the sectors in SEZ and MIDCs. IIMN's unwavering focus on pioneering exceptional industry partnerships to lead the way in providing real-world experiences prepares our management graduates for life by bringing 'corporate into classrooms' to produce relevant talent for the corporate world.



# REIMAGINE CYBER SECURITY MANAGEMENT AND DATA SCIENCE FRAMEWORKS — A STRATEGIC PRIORITY



80%

Spike in Cybercrime in Asia Pacific Regions in 2021

\*Group IB Report 2022

# 3.5 MILLION

Cyber Security jobs to be available globally

\*Cybercrime Magazine 2023

# USD 657.02 BILLION

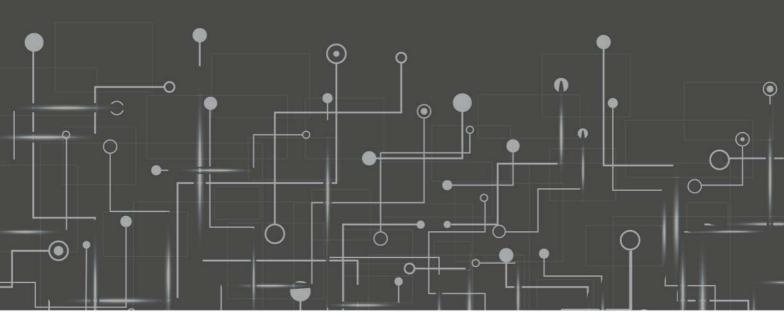
Projected to Generate in Global Cyber Security Market Size by 2030

\*Globe News Wire

# \$35.3 BILLION

Big Data Security Market Worth to Grow at a CAGR-12.4% by 2026

\*MarketsandMarkets





In a drive towards digital transformation, the industry has witnessed increased growth in organizations moving their data, processes, services, and infrastructure to the cloud platforms, with operations being managed using the networks. This has only ushered in huge risks with the critical data assets exposed to external vulnerabilities. Security leaders across organizations have the daunting task of understanding the nuances of cloud-based models, establishing privacy, and developing a security framework to manage and mitigate the risks.

The increasing complexity of this landscape has highlighted the demand for hybrid techno-management professionals who can evolve into strategists and leaders, moving beyond technical proficiency.

In light of the current scenario, this programme aims to help mid-management professionals, senior managers aspiring to equip themselves with the foundation of cyber security management, and even CTOs and CXO-level professionals who seek to bolster their management skills and stay agile in this evolving landscape.

This programme will empower participants with essential cybersecurity knowledge, enabling them to assess risks systematically and manage them using a combination of processes, techniques, and procedures, both tactically and strategically, while minimizing reliance on an excessive number of tools. Beyond technical skills, the programme will emphasize fundamental principles of communication, leadership, strategy, team management, governance, and other core concepts essential for a comprehensive understanding of cyber security in a rapidly evolving landscape.





Cyber threats have become more sophisticated and prevalent, making it imperative for organizations to prioritize cyber security as a strategic initiative. The CIO / CISO role is no longer just responsible for implementing security measures but is a key strategic leader who shapes the organization's cyber security vision and ensures it aligns with business objectives. They drive innovation in cyber security practices and technologies while championing the importance of cybersecurity to customers, partners, and stakeholders. In this increasingly digital world, a forward-thinking Chief Information Officer with an innovation-focused mindset is crucial to safeguarding the organization's data, reputation, and long-term success in the face of evolving cyber threats.

82%

of CIOs believe their software supply chains are vulnerable

\*betanews.com

# \$8 trillion

is the anticipated cost of cybercrime in 2023, projected to rise to \$10.5 trillion by 2025



### PROGRAMME OBJECTIVES





Develop capabilities to manage the vulnerabilities, threat detection, and mitigate the risks caused by cyber destruction.



Providing hands-on workshops through experiential learning on the process with a few tools and technologies to help professionals demonstrate their prowess as business enablers and cyber warriors.



To enable the participants to serve as role models, demonstrating their inclusive leadership skills equipped to make tactical, strategic, and operational decisions in establishing a cyber secure ecosystem.



Nurtured to be a beacon, catalyst for change in applying the formula of collaboration, and a strategic thinker in driving the transformative outcomes in responding to cyber incidents.



Redefining security leadership among participants to develop data-driven storytelling skills and present it to the management and public stakeholders in the business language.



Enabling participants to develop comprehensive cybersecurity strategies around defensive and offensive approaches in managing risks and fostering security awareness.



How to adapt to evolving needs, leverage advanced technologies, and around the opportunities of Al and automation, big data, and next-gen security.

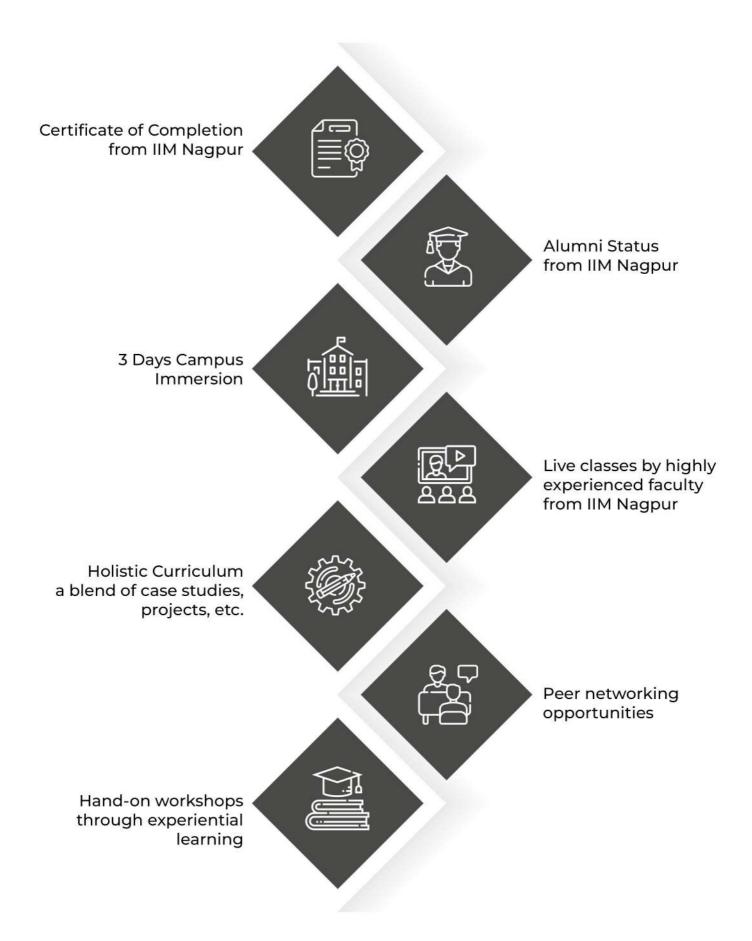


Building effective dashboards for the board and crafting narratives to prepare the board reporting deck for better visibility.



Complying with the data privacy and protection regulation and international and national regulatory standards.





# **KEY LEARNING OBJECTIVES**



Fundamentals of cyber security management

Vulnerability and risk management

Hands-on experiential learning

Inclusive leadership and strategic thinking

Data-driven storytelling and communication

Comprehensive cyber security strategies

Adaptation to evolving technologies

Regulatory compliance and governance



# **Module I**

# Cyber Security Management Foundation

- CISOs Roles and Responsibilities
- Development of Policies and Procedures
- Employee Awareness and Training Management
- Digital Forensics Readiness
- Contemporary Cyber Security Practices
- Security Governance
- Desired Outcomes from Leadership of an Organization

# Cyber Security Technical Foundation

- Essentials of Python (Information Security)
- Network Security
- Cloud Security
- Endpoint Security
- Threat Management
- Relevant ISO Standards
- Threat Intelligence & Analysis
- Incident Response and Recovery
- Security Architecture and Design
- Intrusion Analysis Detection using Log Analysis

#### Policies & Governance

- Leadership and Stakeholder Management
- Managerial and Human Aspects of Cyber Security
- Board-Level Reporting
- Cyber Security Policy Goals and Objectives
- Cyber Security Policy and Auditing within an Organization
- Cyber Security Policy and Auditing for Business Partners

# • Strategic Management Approach for Cyber Security

- Basics of Strategic Management Concepts
- Importance of Alignment between Organization Strategy and Cyber Security
- The Role of Strategy, Competitive Advantage and Leadership in Organizations

#### PROGRAMME CONTENT



# Data Science in Cyber Security Consistency

- Basics of Data Science and Al
- Descriptive and Inferential Statistics
- Exploratory Data Analysis
- Classification Methods
- Regression Models

# Blockchain in Cyber Security Management

- Foundations of Blockchain
- Use Cases of Blockchain in Various Sectors
- Integration of Blockchain with IoT, Cloud and AI in the context of Cyber Security

# **Module II**

### Cyber Security Program Management

- Security Operation Centre (SOC)
- Security Information and Event Management (SIEM)
- Patching
- Vendor and Partnership Relationships
- Communication for Cyber Security Compliance
- NIST Framework
- Successful Program Management Case Studies

# Cloud Security Management

- Cloud Security Definition and Deployment
- Risks in Cloud Security
- Content Security Policy
- Hardware Security Modules
- Key Management as a Service (KMaaS)
- Access/Data Residency Restrictions

#### Risk Management and Incident Response

- Cyber Security Risk Management
- Business Risk Linkage
- Business Asset Identification and Classification
- Internal Audits for Threat Identification
- Physical Asset Management



#### PROGRAMME CONTENT



# Crisis Management, Business Continuity Planning & Management

- Building Effective Crisis Management Teams
- Group Dynamics and Conflict Resolution
- Business Continuity Planning
- Incident Response and Mitigation Strategies

## Data Privacy, Implications and How to Manage

- Data Privacy Laws and Regulations
- Data Sharing Principles
- Regulatory Aspects of Data Management

# **Module III**

## Cyber Security Tools and Techniques

- Hands-on experience with Cyber Security Tools
- Firewalls
- Scanners
- Antivirus
- Network Monitoring and Scanning Tools
- IoT Security
- Application Security
- Cloud Security

#### Data Driven based Effective Business Communication for Cyber Security Managers

- Dashboard Creation
- Data Visualization and Storytelling
- Report Generation for Cyber Security Communication

#### Applied AI, Generative AI: Future Trends and Innovation

- Network Analysis of Cyber Systems
- Anomaly Detection
- Organizing and Analyzing Logs for Cyber Security Intelligence
- Preventive Maintenance in Cyber Security
- Future Trends in Cyber Security

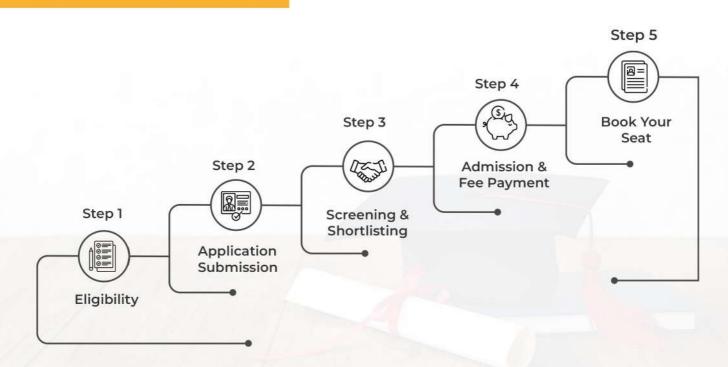
#### Note:

- All the above are case studies based or exercise based sessions.
- This is an indicative list of course topics and is subject to change as per IIM Nagpur's discretion.



Duration	• 12 Months
Delivery	Direct to Device (D2D)
Schedule	<ul> <li>Session Timings: 2 Sessions on Sundays, 2:00 pm to 5:00 pm</li> <li>Commencement Date: 18th February 2024</li> <li>Application Closure Date: 31st January 2024</li> </ul>
Campus Immersion	3 Days of Campus Immersion
Eligibility Criteria	<ul> <li>To be eligible, candidates must have completed a Bachelor's Degree from a recognized university.</li> <li>Minimum 3 years of work experience.</li> </ul>

# **ADMISSION PROCESS**



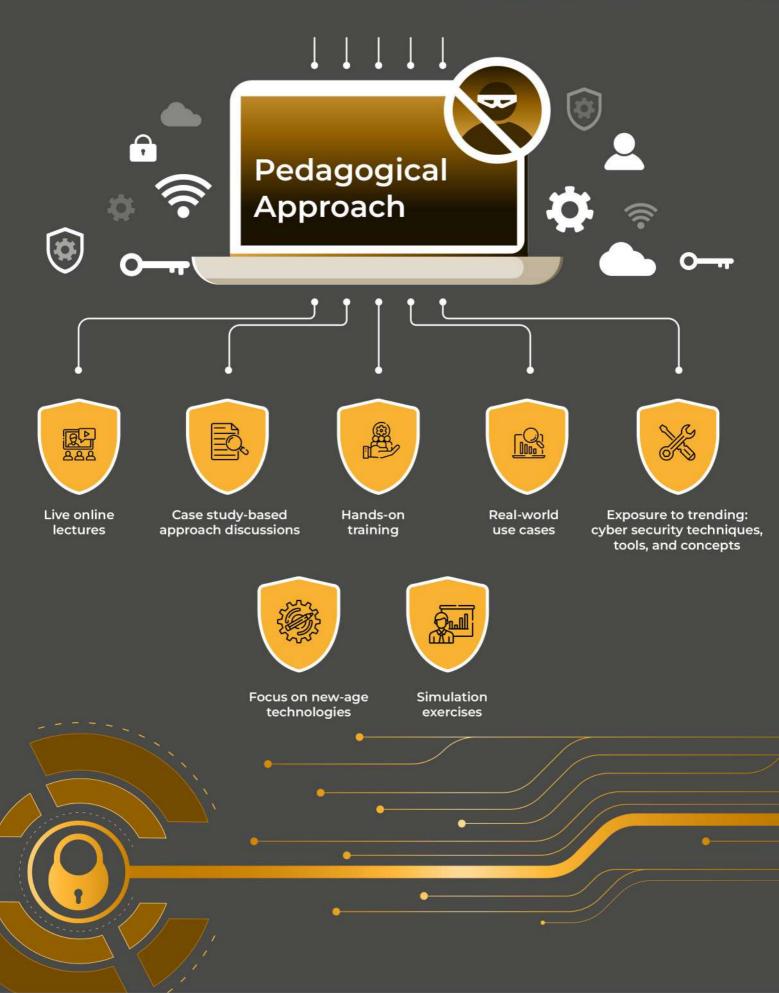


# WHO SHOULD ATTEND?

▶ This programme is for middle-level managers and aspiring senior executives desiring to improve their cyber security management skills through data analytics, data driven decision making approach with management principles and enabling them to inculcate and drive cyber security initiatives at organizational levels.







# LIBRARIES OF CONCEPT, TOOLS AND TECHNIQUES



# **Key Focus Areas**

Risk management Network security

**SASE** (Secure Access Service Edge)

End-point security

XDR
(Extended Detection and Response)

Cloud security

**IoT** (Internet of Things) security

5G security

Application Security

CASB (Cloud Access Security Broker) Security operations

SOAR (Security Orchestration, Automation, and Response)

**Zero Trust** 

**PAM** (Privileged Access Management) IAM (Identity and Access Management)

### Curriculum Breakdown



<sup>\*</sup>The above is an indicative list of pedagogical approaches, curricula, libraries and techniques/tools used in the delivery of the intake



Fee Structure	
Application Fee	Total Programme Fee (exclusive of Application Fee)
INR 2,006/- (including GST)	INR 2,00,000/- + GST

Instalment Pattern		
Instalment 1	INR 70,000/- 5 days from date of offer	
Instalment 2	INR 65,000/- 10th May 2024	
Instalment 3	INR 65,000/- 10th August 2024	

# Easy EMI Options Available

Note:

\*All the amounts mentioned above are exclusive of GST except application fee (which is inclusive of 18% GST).







- For participants who meet the prerequisite and successfully complete the programme will be awarded "PG Certificate Programme in Cyber Security Management and Data Science" by IIM Nagpur.
- Participants will also be accorded IIM Nagpur's alumni status.







Prof. Magesh Nagarajan

Member and Convener, CCDA, IIM Nagpur

Dr. Magesh Nagarajan is a faculty member in the decision science and information systems area at IIM Nagpur. Prior to joining IIMN, Nagarajan has taught at Coventry University (UK) and Goa Institute of Management (India). He worked as a researcher in University of Southampton (UK) and United Nations University (Germany) applying simulation modelling and analytics in public sector problems. He has also worked with IBM Ltd., Bengaluru as an Applications Programmer. A member of the Operational Research Society of United Kingdom, Operational Research Society of India, International Association of Computer Science & Information Technology, and the Indian Society for Technical Education, Magesh has to his credit an array of research papers and conference presentations. His interests lie in the area of applied operations research, big data analytics, management, agent-based modelling, simulation, supply chain management, data science, and quantitative methods.



# Prof. Kothandaraman Sridharan

CEO, CleverInsight

Kothandaraman Sridharan (Sri) is a technocrat, leader, and innovator with 30+ years of experience in the software-service industry, product development, IT strategic consulting, and AI & Data Science domains. He has been a technology advisor for Fortune 500 companies globally. He has advised development centers in Latin America and led expansions in China for growth-focused companies. Sri has led M&A deals for software companies and currently is on the advisory board for universities in US & Asia as well as to bay area-based product companies.

Sri is currently the CEO of CleverInsight, actively working on building an AI & Data Science solution focusing on Public Education, Public Health, Life Sciences, Manufacturing and Agriculture sectors. He is helping to build AI & Data Science departments for universities in emerging markets to promote the next technology horizons and to provide better access and opportunities to students and corporate executives.





# **Virendra U. Bhagwat** Lead Software Architect



"Enrolling in the Cybersecurity programme was a game-changer for me. It equipped me with new skills and invaluable insights into cybersecurity. With senior roles on the horizon, this programme's curriculum has been instrumental in shaping my decision-making for my organization. The experienced faculty and guest lectures from cybersecurity experts enriched my learning. I wholeheartedly recommend this programme to aspiring professionals for its exceptional curriculum, effective pedagogy, executive alumni status, and unwavering support. It's a transformative journey worth embarking on."







Piali Sinha Advisory Manager, IT & Cyber Security Audits,

# Deloitte.

"The Cyber Security and Data Science course at IIM Nagpur from June 2022 to June 2023 has been a game-changer for me. The programme's cutting-edge curriculum, expert faculty, and practical approach have equipped me with the knowledge and skills needed to excel in these fast-evolving fields.

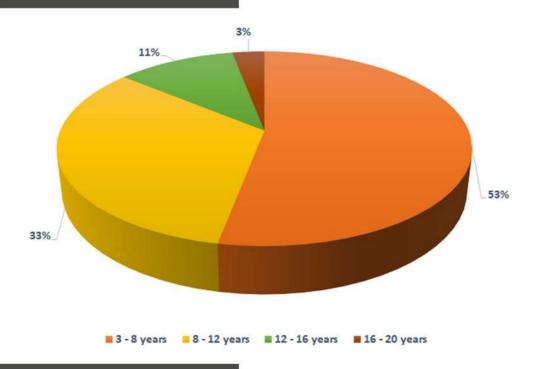
The emphasis on hands-on learning, real-world projects, and collaboration with diverse peers has been instrumental in honing my abilities. I am now more confident in tackling complex challenges in cyber security and data science.

IIM Nagpur's top-notch facilities and unwavering support made this learning journey smooth and productive. This course is nothing short of transformative, and I highly recommend it to anyone seeking a successful career in these domains. Kudos to IIM Nagpur for this exceptional opportunity!"

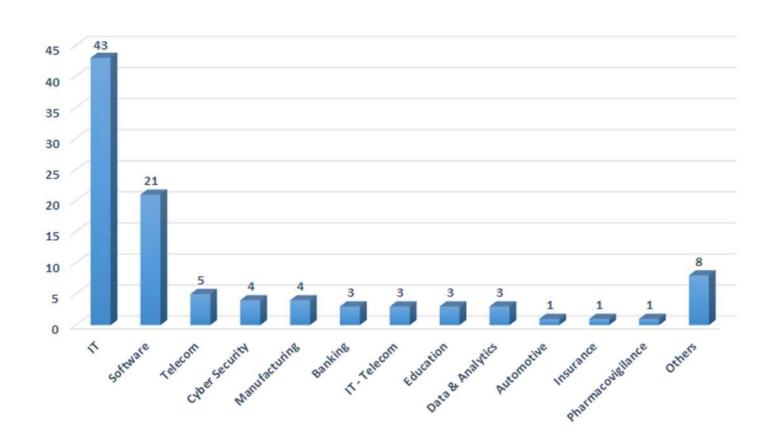




# Past Experience of Professionals



# **Industry Profile of Professionals**



# TOP COMPANIES WHERE OUR ALUMNI ARE WORKING AT:

























# Top Profiles of Our Alumni



Note:

• All company names are trademarks or registered trademarks of their respective holders. Use of them does not imply any affiliation with or endorsement by them.



# Profile Building

#### **Resume Review**

# Placement Assistance

# Career Enhancement Sessions

Rigorously building the candidate's profiles and resume scrutinizing with their LinkedIn profiles.

Jaro Education enables personalised feedback to boost overall virtual presence.

Moving forward with carefully curated resumes reviews that ensures you are interview-ready for the workplace of tomorrow. Get career assistance as per the profile and preferences. On an average, get 5-6 job recommendations to enhance quality employment opportunities. Bridging connectivity to link the best talent with organizations through eminent sessions from top-class industry speakers.

Top Notch Companies Onboarded by Jaro Education for Interview Opportunities































- IIM Nagpur or Jaro Education do not guarantee or promise you a job or advancement in your existing position. Career Services is simply
  provided as a service to help you manage your career in a proactive manner. Jaro Education provides the career services described here. IIM
  Nagpur is not involved in any way with the career services described above and offers no commitments.
- Past performance records do not guarantee any future opportunities.
- All company names are trademarks or registered trademarks of their respective holders. Use of them does not imply any affiliation with or endorsement by them.



#### **ABOUT JARO EDUCATION**





e-India Awards

The Best ICT Enabled **Higher Education** Institute Award



#### Educational **Excellence Awards**

Most Innovative & Successful Online MBA Program in India



**Outstanding Contribution** in Online Education



# Awards

**Best Digital Learning** Innovation Award



#### World HRD Congress

**Outstanding Contribution** in Online Education



#### World HRD Congress

Best Digital Learning Innovation Award



Career Transformed

120+

Programs from Diverse Domains

30+

World's Leading Academic Partners

Learning Centres across India

Top NIRF Ranked Indian Institutes & Universities

Top QS Ranked Global Institutes & Universities

Jaro Education is an edtech pioneer and online higher education company that specialises in executive education, serving as a liaison between the world's leading universities and institutes to create online and technology-driven programmes. The company provides a quality bucket of online executive education programmes catering to domains such as Doctorate & Ph.D., Analytics & Data Science, Management, Finance, etc., from renowned national and international institutions to meet the needs of working professionals. Our goal is to foster the growth of entrepreneurs and professionals at all levels, from entry-level to C-Suite, through world-class executive education programmes.

# Connect us

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#### Jaro Education's Presence

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