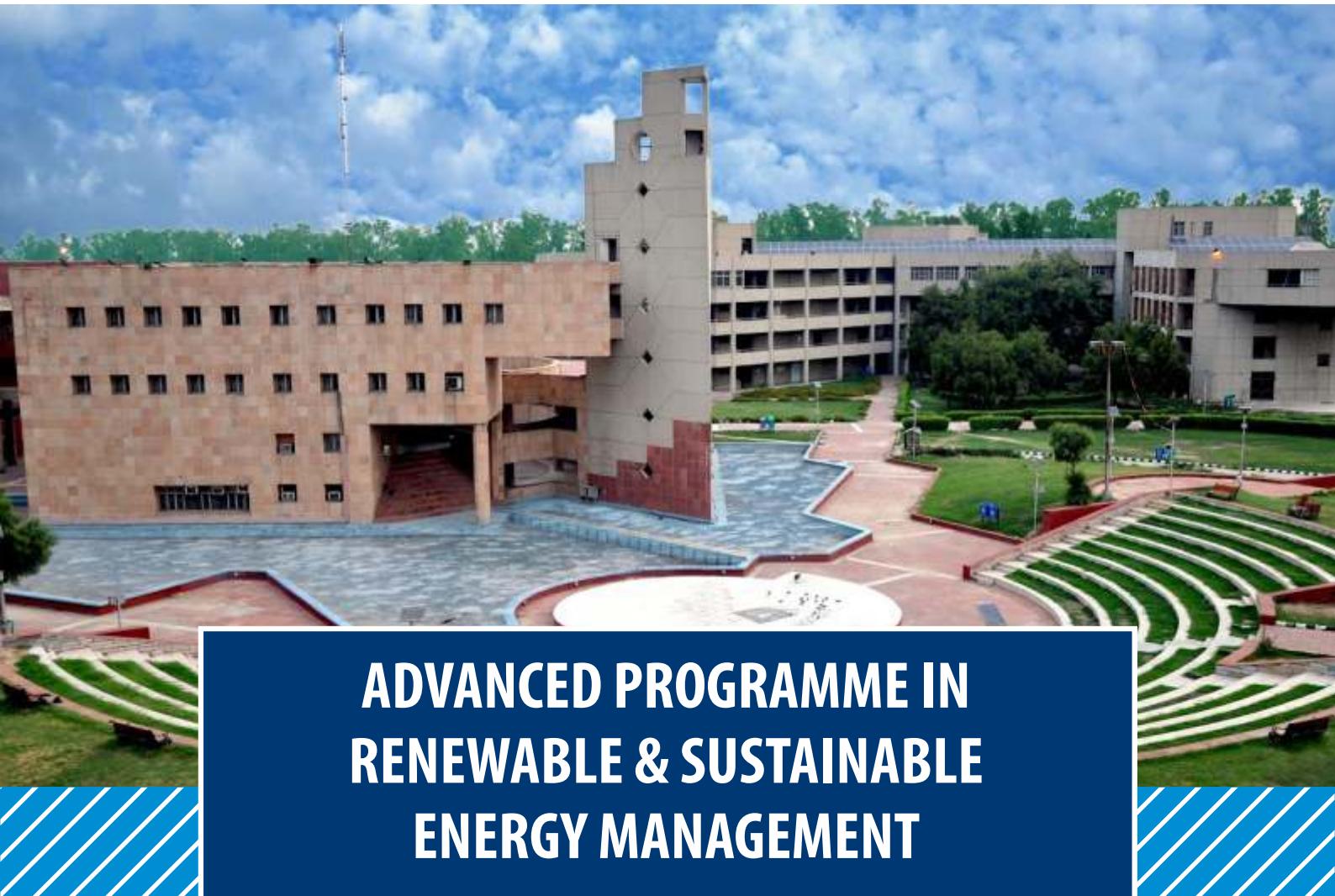




# Delhi Technological University

Established by the Govt. of NCT of Delhi vide Act 6 of 2009  
(Formerly Delhi College of Engineering)

ISO 9001 : 2015 Certified



## ADVANCED PROGRAMME IN RENEWABLE & SUSTAINABLE ENERGY MANAGEMENT

**Driving Clean Energy Transition with  
Strategy, Technology & Leadership**

(Batch - 01)

**Duration: 6 Months**

**Mode: Live Online + Campus Modules**



# About Delhi Technological University (DTU)

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## **Engineering the Future. Empowering the Nation.**

Delhi Technological University (DTU) is one of India's most prestigious technology institutions, globally respected for academic excellence, innovation, and leadership. Guided by a bold vision to become a world-class technology university, DTU stands at the forefront of national and international knowledge networks—driving progress through education, research, and innovation.

### **A Legacy of Excellence**

Established in 1941, DTU boasts an illustrious legacy spanning over 84 years. Its 164-acre flagship campus in Rohini, New Delhi, is a thriving hub of learning, discovery, and creativity. DTU is proud to be the founding cradle of several of India's leading institutions, including the Faculty of Management Studies (University of Delhi), the School of Planning and Architecture (SPA), and the Departments of Chemical Engineering and Textile Technology at IIT Delhi.

### **A Vibrant Academic Ecosystem**

DTU nurtures a diverse academic community of over 16,000 students across undergraduate, postgraduate, and doctoral programs on two campuses. With nearly 500 distinguished faculty members across 15 departments and three interdisciplinary centres, the university offers a dynamic, future-ready learning environment supported by strong administrative and technical expertise.

### **Global Impact, Limitless Opportunities**

Renowned for producing industry leaders, innovators, and entrepreneurs, DTU alumni are making a powerful impact across the globe. The university's strong focus on cutting-edge research, industry collaboration, and societal relevance ensures graduates are equipped to lead in an ever-evolving world.

### **Shaping Tomorrow**

With an unwavering commitment to quality education, breakthrough research, and meaningful societal contribution, DTU continues to shape talent, inspire innovation, and deliver solutions that empower individuals, industries, and the nation.

# About the Centre for Technology Enhanced Learning (CTEL)

The Centre for Technology Enhanced Learning (CTEL) at Delhi Technological University is a forward-looking initiative committed to transforming education through technology-driven, learner-centric digital programs. CTEL empowers learners across the globe by delivering accessible, innovative, and personalized learning experiences designed to meet the demands of a rapidly evolving world.

By leveraging appropriate and scalable technologies, CTEL reaches motivated learners—including those in remote and underserved regions—through programs that blend practical application, industry relevance, and contemporary best practices. Each offering is carefully designed to equip participants with future-ready skills, emphasizing real-world problem-solving, hands-on learning, and measurable career outcomes.

CTEL fosters a dynamic and collaborative learning ecosystem through peer-to-peer engagement, expert-led discussions, interactive forums, and professional networking opportunities. Participants who successfully complete programs with satisfactory performance are awarded a Professional Development Certificate, enhancing their professional profile and accelerating career growth.

Beyond individual advancement, CTEL plays a vital role in workforce development and national capacity building, contributing to India's economic and technological progress. The Centre also serves as a strategic bridge for government bodies, industry partners, and non-governmental organizations, enabling them to address current and future challenges by harnessing DTU's extensive academic, research, and innovation expertise.

Driven by a strong commitment to democratizing education, CTEL ensures that high-quality learning remains affordable, inclusive, and accessible, empowering learners to unlock opportunity, innovation, and impact—anytime, anywhere.



## **From the Desk of the Hon'ble Vice Chancellor, Delhi Technological University — Professor Prateek Sharma**

It gives me immense pleasure to note the launch of the forthcoming Executive Education Programme at Delhi Technological University (DTU). This initiative reinforces DTU's long-standing commitment to advancing the frontiers of knowledge, strengthening industry-academia partnerships, and providing education that is contemporary, impactful, and aligned with national priorities. In today's era of rapid digital transformation, technology-enabled learning has become a vital tool for widening access, enhancing quality, and democratizing education.



Digital platforms now empower professionals to upskill and reskill without career disruption, while enabling universities to reach learners beyond traditional classrooms. In consonance with the National Education Policy (NEP) 2020—which emphasizes flexibility, lifelong learning, and multidisciplinary engagement—DTU remains dedicated to harnessing digital technologies to build inclusive, future-ready, and industry-responsive learning pathways.

This specialized programme in Renewable & Sustainable Energy Management is an initiative to provide the right skills to working professionals. By combining DTU's academic excellence with our digital outreach and industry orientation, we strive to deliver executive education that is holistic, practice-driven, and relevant to the current demands.

I am confident that this initiative will equip participants with cutting-edge skills, open new avenues for professional advancement, and contribute to India's mission of building a resilient, innovative, and future-ready workforce. I extend my best wishes to all participants and congratulate the teams at DTU and VCNow for this valuable collaboration and timely offering.

Congratulations once again!

**Prof. Prateek Sharma**

Vice Chancellor, DTU

## From the Desk of the Dean, Digital Education — Professor S. Indu

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On behalf of Delhi Technological University (DTU), I warmly welcome you to the Centre for Technology Enhanced Learning (CTEL). DTU has consistently been at the forefront of shaping India's intellectual landscape and contributing to global development. We take pride in our continuous efforts to make a meaningful impact in engineering and technology education. We recognize that India's demographic dividend can yield its full potential only when our learners receive quality, holistic education that prepares them for a dynamic world.



To extend DTU's outreach beyond its physical boundaries and provide world-class education across diverse disciplines—engineering, technology, design, maths, sciences, humanities, biotechnology, and sports—for both fresh and experienced learners, the Centre for Technology Enhanced Learning has been established. The centre's mandate is to deliver high-quality education at scale through the intelligent use of technology, ensuring that learning remains current, accessible, and of the highest standard. As the Dean of Digital Education, I wholeheartedly invite you to explore our innovative programmes and become part of DTU's effort to create a knowledgeable, skilled, and forward-looking society. Together, let us build a nation we can be proud of.

Welcome once again,

**Professor S. Indu**

Dean, Digital Education

# PROGRAMME OVERVIEW

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The accelerating transition toward renewable and sustainable energy has become a strategic imperative for governments, industries, and organizations worldwide. India's ambitious renewable capacity targets, net-zero commitments, and evolving ESG regulations demand professionals who possess a strong understanding of energy technologies, sustainability frameworks, financial viability, and project leadership.

The Advanced Programme in Renewable & Sustainable Energy Management is a comprehensive executive education programme designed to equip professionals with the technical, analytical, managerial, and leadership capabilities required to conceptualize, evaluate, and implement renewable and sustainable energy initiatives.

Delivered by distinguished DTU faculty through interactive live online sessions and an on-campus immersion, the programme blends theory, case studies, simulations, and a real-world capstone project to enable immediate workplace application.



# PROGRAMME OBJECTIVES

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- Develop a strong foundation in renewable energy technologies including solar, wind, bioenergy, storage, and green hydrogen
- Enable planning, evaluation, and management of renewable energy projects
- Integrate sustainability, ESG, SDGs, and circular economy principles into energy strategy
- Build data-driven decision-making skills using analytical and financial tools
- Prepare participants for leadership roles in the green and sustainable economy

## KEY PROGRAMME HIGHLIGHTS

- Live faculty-led sessions from DTU
- Real-world case studies and simulations
- Exposure to project finance, policy, and regulation
- Capstone project with expert evaluation
- Executive Alumni Status of DTU

# KEY HIGHLIGHTS

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## WHO SHOULD ATTEND

- Engineers and Technologists
- Sustainability & ESG Professionals
- Energy Managers and Energy Auditors
- Project Managers and Renewable Energy Consultants
- Corporate Strategy and Operations Leaders
- Entrepreneurs and Clean Energy Professionals

## ELIGIBILITY CRITERIA

- Indian Participants: Graduates (10+2+3) or Diploma holders (10+2+3) from a recognized university/institution
- International Participants: Graduation or equivalent degree from a recognized institution
- Work Experience: Minimum 2 years

## PEDAGOGY

- LIVE online lectures using VCNow's Direct-to-Device (D2D) platform
- Case studies, quizzes, simulations, and in-class exercises
- Individual and group assignments with faculty feedback
- Mid-term and end-term evaluations

Capstone project and presentation

# PROGRAMME CONTENT

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## **MODULE 1:** Fundamentals of Renewable & Sustainable Energy (Weeks 1–4)

### **Key Topics**

- Global & Indian Energy Landscape
- Transition to Net Zero
- Renewable Energy Sources: Solar, Wind, Hydro, Biomass, Geothermal
- Sustainable Energy Policies & Regulations
- Economics of Renewable Energy

### **Learning Outcomes**

- Understand drivers of renewable energy adoption
- Build foundational technical and economic knowledge
- Interpret national/global energy strategies

### **Practical Components**

- Case Study: India's Renewable Energy Targets
- Tool: Basic LCOE Calculation (Solar & Wind)

## **MODULE 2:** Solar Energy Systems & Design (Weeks 5–8)

### **Key Topics**

- Solar PV Technology & Components
- Rooftop & Utility-Scale Solar
- System Sizing, Shadow Analysis, Performance Ratios
- Financial Modelling for Solar Projects
- Solar O&M, Remote Monitoring, and Automation

### **Learning Outcomes**

- Design and evaluate solar PV projects
- Perform energy yield estimation
- Understand CAPEX, OPEX, ROI, Payback

# PROGRAMME CONTENT

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## Practical Components

- Software Session: Helioscope / PVsyst Basics
- Mini Project: 100 kW Solar System Feasibility Report

## MODULE 3: Wind, Hydro & Bioenergy Systems (Weeks 9–12)

### Key Topics

- Wind Resource Assessment
- Wind Turbine Technologies
- Small Hydro Plants & Site Selection
- Biomass & Waste-to-Energy Technology
- Hybrid RE Systems (Solar + Wind + Storage)

### Learning Outcomes

- Evaluate wind and biomass projects
- Interpret resource data & environmental constraints
- Integrate hybrid energy solutions

## Practical Components

- Software Session: WindPro / OpenWind Demo
- Case Study: Hybrid RE Parks in India

## MODULE 4: Energy Storage, Green Hydrogen & Grid Integration (Weeks 13–16)

### Key Topics

- Battery Technologies (Li-ion, Flow, Advanced Chemistries)
- Storage Economics & Use Cases
- Hydrogen Production, Electrolysers, Fuel Cells
- RE Grid Integration, Smart Grids, EV Charging Infrastructure

### Learning Outcomes

- Compare different storage technologies
- Understand hydrogen's role in decarbonisation
- Address grid stability & intermittency challenges

# PROGRAMME CONTENT

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## Practical Components

- Simulation: Battery Sizing for Solar+Storage
- Case Study: National Green Hydrogen Mission

## MODULE 5: Sustainability, ESG & Energy Efficiency (Weeks 17–20)

### Key Topics

- ESG Frameworks (Global Reporting Initiative, BRSR, SASB)
- Corporate Sustainability Strategy
- Carbon Accounting, GHG Protocols, CDP
- Industrial Energy Efficiency & Energy Audit
- Circular Economy & Sustainable Operations

### Learning Outcomes

- Build sustainability roadmaps
- Perform carbon footprint assessments
- Align projects with ESG standards

## Practical Components

- Activity: Carbon Footprint Calculation for a Facility
- Case Study: ESG Reporting in Manufacturing

## MODULE 6: Project Management, Policy, Finance & Leadership (Weeks 21–24)

### Key Topics

- Renewable Energy Project Lifecycle
- Risk Assessment & Regulatory Compliance
- Project Finance & PPP Models
- Energy Markets, Trading & Open Access
- Leadership in Clean Energy Transition

### Learning Outcomes

- Manage end-to-end RE projects
- Understand bidding, procurement & financing
- Lead organisational sustainability initiatives

# PROGRAMME CONTENT

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## Practical Components

- Tool: Financial Modelling in Excel
- Policy Simulation: Drafting RE Procurement Strategy

## Capstone Project (6 Weeks Across Programme)

### Participants will complete a real-world project, such as:

- Feasibility study for a corporate solar rooftop
- Energy transition roadmap for an SME
- Carbon footprint & ESG improvement plan
- Design of a hybrid RE (solar + storage) microgrid
- Green hydrogen pilot proposal

Includes presentation to an expert panel for certification.



## PROGRAM SCHEDULE

- Classes: Once a week
- Day: Saturday
- Time: 6:00 PM – 9:10 PM IST

## ON-CAMPUS MODULE

- **Duration:** 3 days towards the end of the programme
- **Location:** Delhi Technological University, New Delhi

## EVALUATION & ATTENDANCE

Evaluation methodology is at the discretion of the faculty. The methodology includes online exams, case analysis, class contribution and any other component as decided by the respective course faculties. A minimum of 75% attendance is a prerequisite for the successful completion of this programme. The Programme may require participants to work on individual/group assignments and/or projects as well.



# Programme Directors

**Prof M Rizwan** is a Professor in the department of Electrical Engineering at Delhi Technological University. Prof. Rizwan did his post-doctoral research at Virginia Polytechnic Institute and State University, USA. He has more than 23 years of teaching and research experience. Dr. Rizwan has successfully completed five research projects in the area of renewable energy systems and published and presented more than 220 research papers in reputed international/national journals including IEEE transactions and conference proceedings. Presently he is working on one international and one national research projects in the area of solar PV and EVs. Dr. Rizwan has authored one book for CRC Press, USA and edited one book for AIP Publishing, USA. He is the recipient of Raman Fellowships for Post-Doctoral Research for Indian Scholars in USA, DST Start Up Grants (Young Scientists) and many more. His area of interest includes soft computing applications in power engineering, renewable energy systems, building energy management, smart grid etc.



**Prof Neeraj Sharma Professor** is an adjunct faculty in the Delhi School of Management at Delhi Technological University. Prof Neeraj Sharma is often referred to as the "Bheeshma Pitamah" of the Technology Based Executive Management Education. He holds a PhD degree in Management Sciences from IIT Delhi and a M Tech from IIT Kharagpur. He is the recipient of the Institute Silver Medal at IIT Kharagpur.

Prof Sharma carries more than 30 years of corporate experience in senior positions with the marquee companies like Usha Martin, Tata Infotech, Hughes, NIIT, upGrad etc. He has served as Director and Cofounder of myDiksha and the founding CEO of Prayogtvisha. He also holds more than 3 years of academic experience too. Prof Sharma has published papers in Indian and International Journals in addition to being the author of chapters in some reference books. He has been studying and teaching courses on Indian Knowledge Systems. He has also authored a book on Hindi poetry- Man Manthan.

# Details of experts associated with the Programme

## National Experts

Sl. No	Name	Affiliation	Area of Expertise
1.	Prof. Bhim Singh	IIT Delhi (IITD)	Power Electronics, Power Quality, Renewable Energy Systems
2.	Prof. Sukumar Mishra	Director, IIT Dhanbad (ISM)	Power System Engineering, Intelligent Techniques for Control of Power System and Power Quality Studies, Renewable Energy.
3.	Prof. Santanu Kumar Mishra	IIT Delhi	EV Charging Infra, Renewable Energy, Power Converter Design.
4.	Prof. M. Rihan	Director General, NISE	Solar Energy Systems, Renewable Energy Policy & Deployment
5.	Dr. Rajesh Katyal	Director General, NIWE, Chennai	Wind Energy, Energy Assessment, Renewable Resource Evaluation and Sustainable Development
6.	Dr. S. K. Tyagi	IIT Delhi (IITD)	Heat Transfer and Thermodynamic Studies of Solar and Thermal Energy Systems, Energy Conservation; Energy and Exergy Analyses.
7.	Prof. S. N. Singh	IIT Kanpur / Director, IIT Gwalior	Power Systems, Smart Grid, Power System Stability, AI Applications in Power Systems. Power Quality, Wind & Solar Forecasting
8.	Prof. S. C. Srivastava	IIT Kanpur (IITK)	Power System Operation, Smart Grid Technologies
9.	Prof. M. Rizwan	DTU, Delhi	Power Engineering, Renewable Energy Systems, Building Energy Management, Smart Grid and AI Application in Power Engineering
10.	Prof. Mukti Singh	Delhi Technological University (DTU)	Power Quality, Renewable Energy, Distributed Generation, Power Electronics, Electrical Machines
11.	Prof. Madhusudan Singh	Director, IIT Bhagalpur	Power Electronics and Motor Drives, Renewable Energy Integration, Control Systems and Power Quality
12.	Dr. Gopal Sarangi	TERI SAS, Delhi	Energy Policy, Sustainability, Power & Energy Governance

# CERTIFICATION

Participants who successfully complete the programme 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. Executive Alumni Status & Networking Access will also be granted to eligible participants.

## Sample Certificate of Completion



## Sample Certificate of Participation



# PROGRAMME FEES & INSTALLMENT DETAILS

**Application Fees :** INR 2,000 + GST

**Programme Fees :** INR 1,50,000 + GST

<b>Installment I</b>	Within 7–10 days of Offer Letter	INR 50,000 + GST
<b>Installment II</b>	On or before <b>10 July 2026</b>	INR 50,000 + GST
<b>Installment III</b>	On or before <b>10 August 2026</b>	INR 50,000 + GST

Note: GST is currently applicable at 18%.

1. All dates are subject to change.
2. All payments are to be made in favour of Delhi Technological University (DTU). All fees, including the application fee, are non-refundable.
3. GST is currently applicable at 18%. Any additional payment arising due to changes in applicable government taxes during the tenure of the programme shall be borne by the participants.

## Important Dates

<b>Application Closure Date (First Phase)</b>	28 Feb 2026
<b>Programme Commencement</b>	29 May 2026

*\*All dates are subject to change at the sole discretion of the institution.*



# About VCNow

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"VCNow", a brand owned by Unified Collaboration Services LLP, is one of the leading enablers of Executive Education in India. VCNow, in alliance with India's top-ranked B-Schools, offers a wide range of live online programmes across various management disciplines, specifically designed for busy working executives.

VCNow is also the largest infrastructure-based HD Video Conference service provider in India, with over 60 Virtual Classroom studios spread across 30 cities. VCNow's Virtual Classroom delivers a near real-time classroom experience through its highly interactive live two-way high-definition video conferencing interface, accessible through both classroom-based and Direct-to-Device (D2D) interactive online learning platforms.

Over the past several years, VCNow has enabled numerous aspiring executives to achieve their career and professional development goals.

## CONTACT US

For further details or support, please contact the sender of this communication or reach us at **8505813522** (9:00 AM – 9:00 PM)

**APPLY NOW**

— PROGRAMME PARTNER —

