



ADVANCED CERTIFICATION PROGRAM

-  **Hybrid and Electric Vehicle Engineering**
-  **Engineering 5G - Next Gen Communication System**

Get Trained by the Professors of IIT Madras

APPLY NOW

OVERVIEW

The Department of Science and Technology, under its National Mission on Interdisciplinary Cyber-Physical Systems jointly with IIT Madras host the Technology Innovation Hub (TIH) for Sensor, Networking, Actuators, and Control Systems (SNACS) area. To Host this TIH, IIT Madras has established IITM Pravartak Technologies Foundation (Technology- Innovation Hub incubated in the IIT Madras research park).

To introduce students with Multi-Physics simulation and innovative thinking, IIT Madras Pravartak Technologies Foundation is offering a 6 month (weekend) 200 hours - ANSYS certification program in partnership with CADFEM India - Elite Channel Partner of ANSYS, representing ANSYS since 1985 with global headquarters in Germany. ANSYS is an American company which develops and markets CAE and Multi-Physics Engineering Simulation Software for product design, testing as well as operations and is the global leader in engineering simulation for over 50+ years.

This certification program primarily aims to create skilled workforce across India in areas relevant to the industry and global contribution to the fast development of disruptive technologies to address industry 4.0 manpower needs.

The program will provide an intensive training on emerging technologies which will include hands on training using ANSYS and placement opportunities in the fields of:

 **Hybrid and Electric Vehicle Engineering**

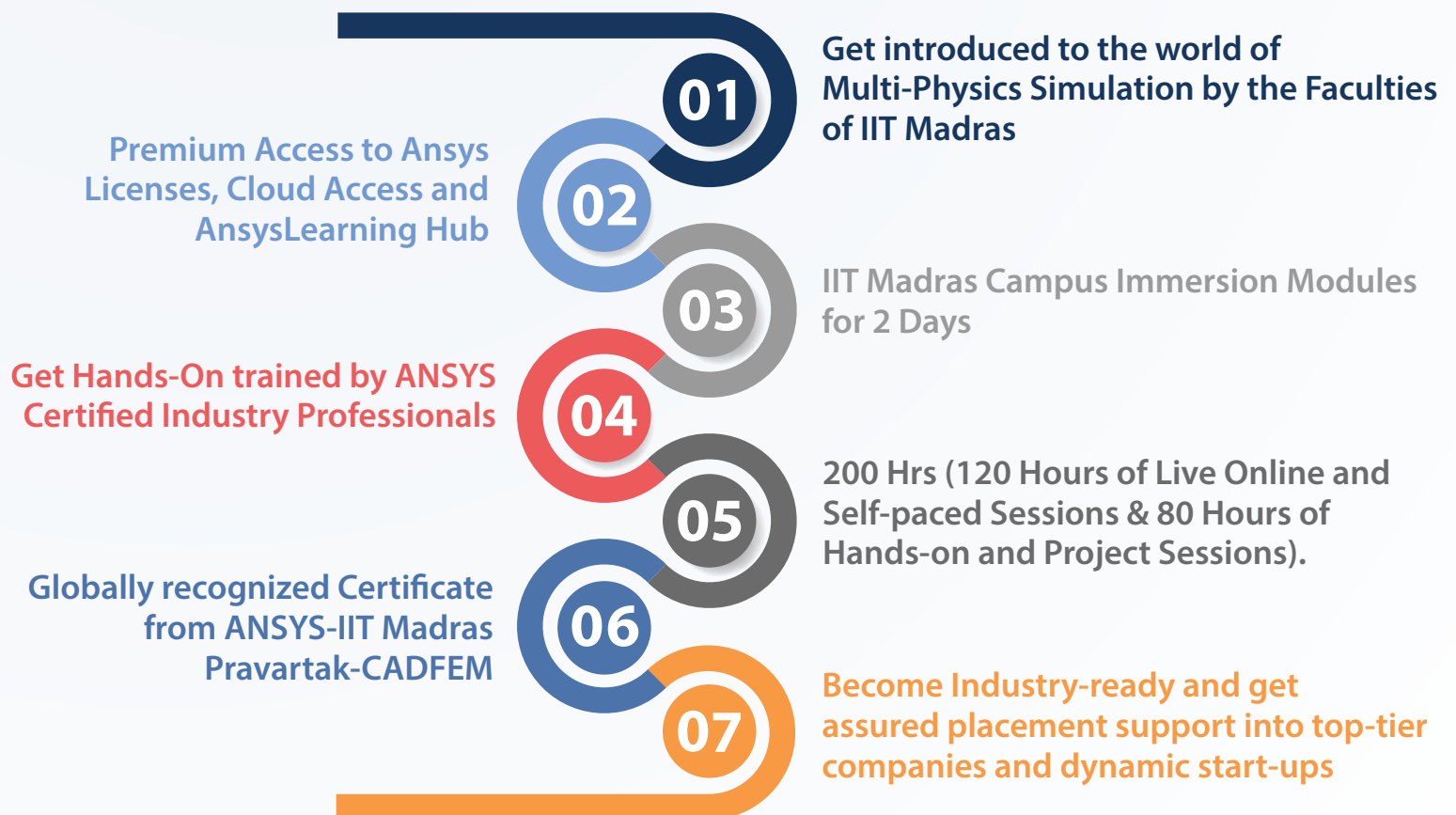
 **Engineering 5G - Next Gen Communication System**



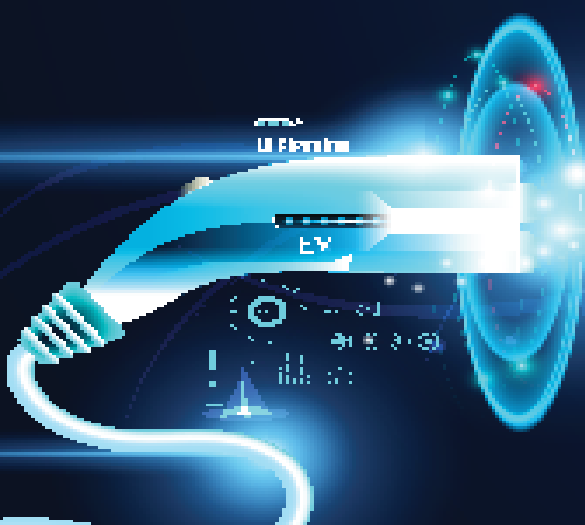
WHO IS THIS PROGRAM FOR?

- ✓ **Current and aspiring product management professionals** looking to gain a detailed understanding of developing and managing products, and disruptive business models and innovation techniques.
- ✓ **Professionals** looking to create and promote products and services across business development, sales & marketing and UX/ UI teams.
- ✓ **Entrepreneurs** keen on launching product-based Startups, and developing capabilities to create disruptive business models and nurture products.
- ✓ **Graduate students** pursuing Engineering and seeking Product Development and Product Management roles.

PROGRAM HIGHLIGHTS



Begin your Skill Development Journey Today...



PROGRAM MODULES:

HYBRID & ELECTRIC VEHICLE ENGINEERING

Levels

Basic

Intermediate

Advanced

Capstone Project

ANSYS Learning Hub

Topics

- >2D Eddy Current Analysis
 - >Machine Designing with RMXprt
 - >2D Electrostatic and Magnetostatic including Meshing
 - >Post Processing
 - >Intro to CFD
-
- >2D Magneto Transient Analysis
 - >Electro Transient Analysis
 - >Electrical Machine Modelling with Ansys Maxwell
 - >Electronics Transformer, Inductors Modeling
 - >Circuit Level Simulation with Maxwell Circuit Editor
 - >Introduction to System Modeling
 - >Introduction to Battery Modeling
-
- >Advanced Electrical Machine Modeling, Maxwell 3D
 - >Motor Power Balance
 - >Equivalent Circuit Model Extraction
 - >Battery Equivalent Circuit Model
 - >Power Electronic Modeling with PExprt and PEmag
 - >Cell Conjugate Heat Transfer and Electro-Thermal Coupling
 - >Multiphysics -Thermal and NVH
 - >Motor Controlling with System Modeling
 - >Multiphysics - Thermal
 - >Functional Safety
-
- >Industry Standard Problem
-
- >Wireless Power Transfer
 - >Getting Started with Medini
 - >Electronic Cooling - Ice Pak
 - >Electronic Reliability - Sherlock

PROGRAM MODULES:

ENGINEERING 5G NEXT GEN COMMUNICATION SYSTEM

Levels

Basic

Intermediate

Advanced

Capstone Project

ANSYS Learning Hub

Topics

- >Intro to Electromagnetics
 - >Intro to Computational Electromagnetics
 - >HFSS Boundary Conditions, Ports and Mesh
 - >HFSS Solution Setup and Post processing
 - >Intro to CFD
-
- >Hybrid Regions
 - >Circuit Designer
 - >Co-Simulation (HFSS & Circuit)
 - >Advanced Solvers and Boundary Conditions
 - >SI Wave
-
- >5G Analysis User Equipment
 - >5G Base Station Simulation
 - >Optimization
 - >HFSS 3D Layout
 - >5G High di/dt
 - >Multiphysics Thermal
 - >Multiphysics Structural
-
- >Industry Standard Problem
-
- >Radar Cross section
 - >ANSYS Q3D
 - >ANSYS Totem
 - >ANSYS REDHAWK
 - >Electronic Cooling – Icepak

PROGRAM SCHEDULE

For Next Batch/Last Date
for Enrollment

Contact us @ 7207927995 / 9182561930

Duration

6 Months (Weekends only)

Sessions

200 Hrs (120 Hours of Live Online and Self-paced Sessions & 80 Hours of Hands-on and Project Sessions)

Course Fee

INR 1 Lakh + Taxes for Each Program

Payment Structure

Direct Mode upto 2 installments or Easy EMI upto 12 installments

Easy EMI Options Starting from INR 9,500

Registration Fee INR 10,000 (Inc. in the Overall Course Fee)

Note:

On successful completion of the program, we offer assured placement/internship support into top-tier companies to the candidates based on performance in the projects.

ELIGIBILITY CRITERIA

- These courses are open to all Engineering/ Science / P.hd. students, scholars, faculty members and professionals from the industry and start-ups.
- If you are a working professional from science background and looking for a change into the areas of emerging technologies, you should consider applying to this program.



**100% Project-
Based Program
(Application Oriented)**



**Globally Recognized
Certification**



**Get Trained from ANSYS Certified Professionals
in par with Global standards**

CAREER OPPORTUNITIES

Qualified faculty with years of industry experience



Collaborations with top-tier firms of the industry



Personalised placement support by experts for all courses

IIT MADRAS PROFESSORS



DR. V KAMAKOTI



DR. K ARUL PRAKASH



DR. GANDHAM PHANI KUMAR



DR. RATNA KUMAR ANNABATTULA



DR. KAVITHA ARUNACHALAM



DR. RADHA KRISHNA GANTI



DR. SRIKANTHAN



DR. KAMESHWARARAO



DR. KRISHNA VASUDEVAN



DR. N. LAKSHMINARASAMMA

CADFEM – WORLD OF SIMULATION

40
YEARS OF

RAPID INNOVATION AND EASY VALIDATION OF DESIGN IDEAS,
PREDICTING THE FUTURE OF TRANSFORMATIONAL PRODUCTS



Cutting-edge Technology With
High Potential Of
Simulation-Based Engineering



Make the unmakeable with
Solutions tailored to the
customer's specific needs



Simulation opens up
fascinating possibilities to make
products, processes, and entire
company safer, more environmentally
sustainable, and make it
more competitive



Meet industry-required safety
standards at a dramatically lower cost
and at twice the speed of more
manual approaches

Think global,
act local



24+
COMPANIES

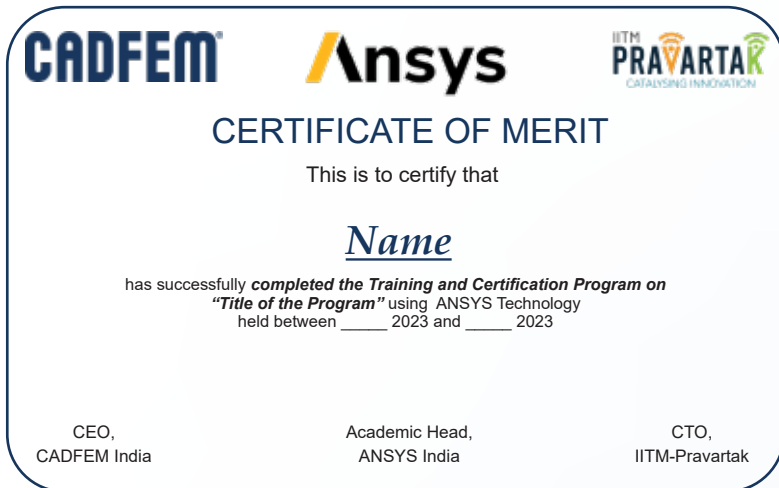
450+
EMPLOYEES

39+
LOCATIONS

32+
COUNTRIES

PROGRAM CERTIFICATE

Candidates will be awarded with a globally recognized Certificate which will help with their career growth and progression.



APPLY NOW

Note: All certificate images are for illustrative purposes only and may be subjected to change at the discretion of IIT Madras Pravartak Technologies.

Realize your ideas. Master your challenges. Discover the potential of simulation
for your company and be Successful. CADFEM has the right solution.

For Inquiries

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9182561930

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