Scheme Highlights

An INAE and Infosys Foundation initiative on Centre for Engineering Education and Excellence (CEEE), in collaboration with IITs and AICTE aims to enhance the quality of engineering education in AICTE accredited institutions by improving faculty teaching capabilities through structured mentorship.

Objective

- Enhance teaching capabilities of faculty members from Tier 2, Tier 3 and Tier 4 engineering institutions accredited by the AICTE.

- Upgrade engineering education through the adoption of modern pedagogy, materials, and training techniques.

Duration

- Four years: FY 2024-25 to FY 2027-28.

Target Group

- Faculty teaching fundamental (core) courses in Semesters II, III, and IV.

- Five Engineering **Domains and its subdomains** are:

    1. Computer Science and Information Technology (CSE & IT) including Data Science and AI/ML.
       Introduction to Programming
       Data-structures and Algorithms
       Discrete Mathematics
       Theory of Computing
       Computer Organization/Architecture
       Databases (along with some elements of data analytics)
       Artificial Intelligence
       Machine Learning
       Operating Systems
       Computer Networks

    2. Electrical, Electronics and Instrumentation

i.) Circuit Theory

ii.) Signals and Systems

iii.) Analog Electronics

iv.) Electrical Machines and Power Systems

v.) Control and Instrumentation

3. Mechanical, Aerospace and Energy

i.) Thermodynamics

ii.) Fluid Mechanics

iii.) Mechanics of Deformable Solids

iv.) Manufacturing
v.) Basics on Energy

4. Civil and Environment Engineering

i.) Environmental Engineering

ii.) Structural Engineering

iii.) Geotechnical Engineering

iv.) Water Resources Engineering

v.) Transportation Engineering & Construction Management

5. Materials, Chemical, and Biomedical Engineering

i.) Introduction to Chemical Engineering, including material balance and energy balance calculations
ii.) Engineering Thermodynamics and Chemical Engineering Thermodynamics.

iii.) Fluid Flow

iv.) Heat Transfer and Mass Transfer (Separation).
V.) Chemical Reaction Engineering including Industrial Chemistry and Reaction

Mentorship Model

Mentees selected for the program will gain invaluable exposure by learning under the guidance of celebrated professors from IITs and other top-tier institutions, renowned for their excellence in engineering education.

- **Physical Mentorship**: Two months (May–June) annually.

- **Virtual Mentorship**: One month (December) annually.

Funding Details

- **Total Outlay**: Rs 38.35 Crores (over 4 years).

Mentor Honorarium:

- Rs 1,76,000 per mentor per year.

Mentee Stipend:

- Rs 50,000 per mentee for offline participation (inclusive of travel, accommodation, and daily allowance).

    All participating mentees will receive **joint certificates** issued by:

- **AICTE**
- **Eminent IITs** involved in the program.
- **Indian National Academy of Engineering (INAE)**

Governance Structure

A. Advisory Committee

- Comprising eminent industry experts to provide strategic advice.

B. Board of Management

- **Chairperson**: Prof. Indranil Manna, President, INAE.

- **Members**:

    o Vice President (Projects), INAE.

- o Vice President (Finance and Establishment), INAE.

- o Selected INAE Fellows with IT expertise.

- o Representative from AICTE/UGC.

- o Representative from Infosys Foundation.

- o Additional members as required.

- **Member Secretary**: Officer from INAE HQ.

C. Selection and Evaluation Committee

- **Chairperson**: Vice President (Projects), INAE.

- **Members**:

  - o One **Principal Mentor** (senior mentor) from each of the five regions (North, East, Centre, West, and South).

  - o Additional members as needed.

- **Member Secretary**: Officer from INAE HQ.

D. Project Management Team

Mentor/Faculty Pool

- **Sources**:

  - o INAE Fellows.

  - o INAE Young Associates.

  - o Domain Experts.

  - o Passionate volunteers after a rigorous selection and screening process.

Implementation Framework

- **Mentors**: Drawn from Tier 1 engineering institutions across five designated regions.

- **Regional Coordination**: Under a nominated **Principal Mentor** for each region.

- **Subject Coverage**:

  - o Each region to cover five core subjects under five domains.