

# INDIAN NATIONAL ACADEMY OF ENGINEERING

## Nomination Form for Election of Fellows from Academe/R&D/Industry

**NOTES FOR GUIDANCE**

- This Form must be complete and type-written in the third person and/or computer print-outs pasted within the space provided under each head.
- Each Nominee shall be proposed and seconded by **INAE Fellows, preferably of the same discipline**, having personal knowledge of the nominee.
- To identify **Engineering Excellence**, the criterion for election to the Fellowship may be one or more of the following:
  - Personal engineering achievements and positive contributions in design, research, projects, consultancy and application to technology development
  - Application of technology, product development, projects undertaken
  - Technical assistance, consultancy
  - Responsibility for management and technical & financial growth of engineering industry/educational institutions/ R&D organizations
  - Specific contributions if involved in team effort
  - Recognition by "peers"
  - Facilitation of growth of R&D or industry in the country
  - Proven leadership in capacity development of an engineering field or allied field leading to innovative applications of engineering to the betterment of society or environment
  - Recognition of exceptional merit and eminence in new and emerging fields of engineering and technology
- The nomination should be accompanied by **five copies of uptodate list of papers published during the last ten years in refereed Indian and Foreign journals in reverse chronological order.**
- The nomination should clearly mention **only one** specific sectional committee, as listed below, to which the nominee should be referred.
- The nomination form complete in all respects should be sent by **registered post/ courier/ speed post to the Executive Secretary, Indian National Academy of Engineering, 6<sup>th</sup> Floor, Vishwakarma Bhawan, IIT Campus, Shaheed Jeet Singh Marg, New Delhi 110016.**
- Canvassing/lobbying for election to the Fellowship may lead to disqualification.

We propose the name of :

.....

**(In block letters as used for correspondence)  
for election as a Fellow of the Academy**

Category in which to be considered <b>(please tick one box)</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>Academe R&amp;D Industry</b>
Name of the Proposer	Brief Remarks about suitability based on personal knowledge of the nominee
Date	Signature
Name of the Secunder	
Date	Signature

**Engg Section I - (Civil Engineering)**

- Structural Engineering
- Construction Engineering
- Water Resources Engineering/ Hydrology/ Hydrodynamics/ Irrigation & Drainage Engineering/Coastal Engineering/ Ocean Structures/Port & Harbour Engineering
- Earthquake Engineering, Wind Engineering and Flood Control
- Geotechnical Engineering
- Transportation Engineering including Railways
- Architecture & Planning
- Surveying including Remote Sensing & other Techniques
- Agricultural Engineering
- Environmental Engineering

**Engg Section IV - (Chemical Engineering)**

- Product/Process Development and Manufacturing Practices
- Unit Operations and Processes, Heat/Mass Transfer and Transport Phenomena, Process Control & automation, Process Modelling & Simulation, Reaction Engineering and Catalysis, Microfluid and Fluid Dynamics, Property Evaluation, Chemical and Process Safety Analysis
- Corrosion, Electrochemical Engineering
- Chemical Technology including Oils, Paper, Petroleum, Leather, Pharmaceuticals, Textiles, Ceramics, Cement and allied fields
- Environmental Engineering of Chemical Systems
- Materials, Devices & Nanotechnology for Chemical Processes and Products

**Engg Section VII - (Aerospace Engineering)**

- Aero & Space Dynamics
- Navigation Guidance & Control
- Aerospace Structures (Rocket Design, Missile Design, Satellite Design, Aircraft Design and Non-Destructive-Evaluation (NDE)/NDT, Composite Structures)
- Space Transportation Systems including Launch Vehicle Design, Space Engineering
- Avionics, Systems and Instrumentation
- Helicopter Engineering including Design & Analysis.
- Airworthiness and Safety of Aircraft/Helicopters/ Missiles
- Flight Simulation & Flight Control
- Flight Operation & Maintenance

**Engg Section X - (Interdisciplinary Engineering & Special Fields)**

- Mission mode engineering covering more than one section of Engineering as above
- Bioengineering/Technology relevant to Chemical Synthesis, Agriculture, Energy, Atmosphere, Food, Medicine and Medical Devices, Biophysics/ Mechanics, Marine Resources, Molecular Biology, Ergonomics, Informatics, Forensics etc.
- Biomedical Engineering
- Environmental Engineering, Climate Change and Global Warming
- Waste Management, Recycling
- Quality, Reliability & Safety Engineering
- Educational Technology
- Remote Sensing
- Industrial Management

**Engg Section II - (Computer Engineering and Information Technology)**

- Computer Software & Hardware including Algorithms and Data Structures, Programming Methodology and Languages, Database Systems, Parallel Processing, Operating Systems
- Artificial Intelligence & Soft Computing including Neural Networks, Genetic Algorithm & Quantum Computing
- Speech and Language Recognition
- Computer Vision, Image Processing and Pattern Recognition
- Automata Theory & applications

**Engg Section V (Electrical Engineering)**

- Power Systems including Generation, Transmission, Distribution and Control
- Electrical - Machines and Devices
- Power Electronics, Drives & Control Systems
- High Voltage & Insulation Engineering
- Electrical Energy Storage including Super Capacitors
- Electrical Traction

**Engg Section VIII - (Mining, Metallurgical and Materials Engineering)**

- Mineral Exploration
- Metallurgical Engineering
- Metallurgy and Mineral Processing
- Engineering Materials (Metallic, Non-Metallic, Composites and Nanomaterials)
- Materials Characterization and Evaluation
- Mining Engineering

**Engg Section III - (Mechanical Engineering)**

- Manufacturing and Forming Technologies including Advanced Processing Methods, Production Engineering, Industrial Engineering, Precision Engineering, Foundry and Casting Technology, Welding and Joining, Metrology, Machining
- Thermal Science and Engineering including Thermo-dynamics, Combustion, Heat Transfer, Air-Conditioning & Climatic Control
- Design and Analysis of Solid, Thermal and Fluid Mechanical Systems (Machines, Structures and Devices) including Kinematics, Mechatronics & Robotics, Micro-Mechanical Systems (MEMS), Tribology
- Automobile Engineering, Naval Architecture & Marine Engineering
- Vibration Engineering, Acoustics and Noise
- Prime Movers
- Experimental and Computational Stress Analysis for Solids & Fluids
- CAD/CAM, CIM

**Engg Section VI - (Electronics and Communication Engg)**

- Semiconductor Devices including Nanoelectronics, Microelectronics, Infotonics
- Communications including Analog, Digital, Wireless, Mobile, Underwater & Space Communication
- Optoelectronics & Optical Communications including Lasers & Holography
- VLSI and Embedded Systems
- Electromagnetics & Microwave Engineering
- Consumer Electronics
- Electronic Components

**Engg Section IX - (Energy Engineering)**

- Conventional Energy
- Non-Conventional Energy
- Nuclear Engineering
- Renewable Energy (including Solar, Wind, Tidal, Hydrogen, Fuel Cells, Biomass, Biofuels, Geothermal, etc.)
- Non-Renewable Energy including Fossil Fuels
- Energy Audit & Management

To be filled in by the office <b>Check-List</b>	
1.Has the nomination been proposed and seconded correctly? 2.Has the text under each head been put up within the spaces provided? 3.Has the nominee been sponsored for only one specific engineering section? 4. Has the nominee been sponsored earlier as well? 5.If answer to 4 is Yes, ensure that two years have elapsed since the expiry of the validity of the earlier nomination. (The validity of a nomination is three years and a fresh nomination can be made only after 2 years)	
Registration No. _____	Ack on _____
Executive Secretary	Vice-President (Fellowship, Awards & Corporate Communication)



**8. SPECIFIC (Kindly avoid generalities) outstanding Technical and Professional Engineering Accomplishments meriting election to INAE**

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**9. Record of Contributions:**

**(a) Publications**

- (i) Number of papers published .....  
(in refereed journals only)
- (ii) Number of papers published during the last .....  
10 years in refereed journals
- (iii) List of Ten most significant refereed journal .....  
papers and corresponding citation index  
(Attach copies of five best papers with number of citations) .....
- (iv) Number of single author publications over the .....  
last 10 years
- (v) h-index (from ISI web of science) .....
- (vi) Number of publications in Conference Proceedings .....
- (vii) Number of classified technical reports, if any .....
- (viii) Number of books/monographs authored .....  
(Attach separate sheet with titles & publishers)

**(b) Technology/Products/Patents**

- (i) Number of innovative Technologies/ .....  
Products developed
- (ii) Number of Technology Transfer .....  
agreements concluded
- (iii) Number of National Patents granted .....
- (iv) Number of International Patents granted .....  
(Attach details on separate sheets)

**(c) Number of Sponsored/Consultancy  
Projects completed**

(Attach Abstracts on separate sheets) .....

10.

**CITATION**

**SECTIONAL COMMITTEE**

Name (b )  
(Name followed by initials as used in correspondence, Year of birth in brackets)

Qualifications & abbreviated Fellowship/Membership of Academies/Professional Bodies :

Designation & Address :

Citation (**not exceeding 300 words that reflect the Nominee's Engineering Excellence**  
- please refer to para 3 of Notes for Guidance)

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Proposer

Secunder