INAE Annual Convention 2024

Day 1

The Indian National Academy of Engineering (INAE) Annual Convention 2024 was held on December 19-21, 2024 hosted at Indian Institute of Technology Delhi, New Delhi. The Convention of the Academy was mega event attended by Fellows, Foreign Fellows, Young Associates, Scientists, Faculty and students of IIT Delhi and Invitees. This year's Annual Convention was made even more memorable as the Chief Guest of the Inaugural Session was Shri Rajnath Singh, Hon'ble Raksha Mantri, Ministry of Defence, Government of India. The Convention started with the traditional lighting of the lamp and invocation followed by the Welcome Addresses by Prof Indranil Manna, President, INAE and Prof. Rangan Banerjee, Director, IIT Delhi. A Visual Presentation on INAE was featured which gave a brief overview of Indian National Academy of Engineering (INAE) since inception and highlighted some of the major technical activities and contributions that have increased the visibility and outreach of the Academy in the National and International engineering domain. This was followed by release of Convention Souvenir featuring brief profiles of the newly elected Fellows, Foreign Fellows and Young Associates and it also contained details of the newly Instituted Memberships- Institutional, Corporate and Individual that has helped bring a larger section of the engineering community under the folds of the Academy.

The much awaited address by the Chief Guest Shri Rajnath Singh, Hon'ble Raksha Mantri was inspirational and though provoking and enthralled the august audience with his deep words of wisdom. During his speech he brought out that India is passing through a defining moment and will soon achieve a formidable technical edge in international arena. He exhorted scientists and engineers to specialise in high-end technologies for strengthening India's position in cutting-edge innovation. He also emphasized the calls to stay connected with the country's heritage while forging ahead and accentuated the need to establish better organic relationship among industry, R&D organisations and academia to achieve progress in disruptive technologies. The Chief Guest – Shri Rajnath Singh, Hon'ble Raksha Mantri, Ministry of Defence, Government of India and Guests of Honour –Dr Samir V Kamat, Secretary DDR&D and Chairman DRDO and Shri SN Subrahmanyan, Chairman & MD, Larsen & Toubro Ltd were felicitated by Prof Indranil Manna, President, INAE and Prof Rangan Banerjee, Director, IIT Delhi.



Chief Guest -Hon'ble Raksha Mantri Shri Rajnath Singh Delivering Address

The highlights of the INAE Annual Convention 2024 on Day 1were the Lectures by eminent leaders in the field of engineering & technology: Plenary Lectures by Shri SN Subrahmanyan, Chairman & MD, Larsen & Toubro Ltd and Dr. SV Kamat, Secretary DDR&D and Chairman DRDO, Ministry of Defence, New Delhi; Key-note Lectures by Dr Ajay Kumar, former Secretary Defence (Production)

and Defence Secretary, Ministry of Defence, New Delhi and Dr. Ajay Mathur, DG, International Solar Alliance and Distinguished Lectures by Dr Manish Gupta, Director, Google Research India, Bangalore and Dr. SK Sarin, Director, ILBS and Former President, NAMS, a medical practitioner who highlighted the interface of engineering with medicine.

A Poster Session and competition was held for Masters's Students and PhD Scholars of IIT Delhi on Dec 19-20, 2024 which was a golden opportunity for them to showcase their research contributions in ten broad engineering disciplines. The Posters were judged by a panel of expert jury members from INAE Fellowship and Faculty of IIT Delhi who also interacted with the students and asked pertinent questions. The INAE Governing Council Meeting was held on the evening of Dec 19, 2024 as per practice each year in the month of December 2024. An "Elevating Program" by SPIC MACAY was organized before the dinner on Day 1 featuring an entertaining Kathak recital by the famous artiste Vidushi Shovana Narayan.

The INAE Annual Convention 2024 was supported by Department of Science and Technology (DST), Government of India and Anusandhan National Research Foundation (ANRF) and partly sponsored by Maruti Suzuki Innovation and Ola.

Day 2

The Indian National Academy of Engineering (INAE) Annual Convention 2024 was held on December 19-21, 2024 hosted at Indian Institute of Technology Delhi, New Delhi. The Convention of the Academy was mega event attended by Fellows, Foreign Fellows, Young Associates, Scientists, Faculty and students of IIT Delhi and Invitees. The second day of the INAE Annual Convention i.e. Dec 20, 2024 commenced with the brief presentations on Technical Reports by the Conveners of the 10 INAE Sectional Committees based on the 10 broad based INAE Engineering Sections covering the entire spectrum of engineering disciplines. The genesis of this initiative is that the INAE Sectional Committees were requested to prepare 1-2 reports as a Technology Forecast/Review/Gap Analysis/Databases/analytics Document which is unique so as to make a marked difference in the respective domains and serve as a reference document for Government Departments/Agencies and other stakeholders as a roadmap for advancing the technology area in the country. The presentations highlighted the roadmap documents under preparation and were well appreciated.

The main technical features of Day 2 were the technical presentations by the newly elected Fellows and Young Associates on their engineering contributions that have brought them acclaim and have led to their election as Fellows and selection as Young Associates. The lectures were followed by Q&A and were illuminating and inspired the audience and also guided the student attendees who were enthused in their research work by the depth of knowledge and skills of the presenters.

The evening session commenced with a Panel Discussion on "Road Map for Viksit Bharat" moderated by Prof Indranil Manna, President, INAE and the panellists were eminent experts from Academia/R&D organizations and Industry viz Dr. Tapan Sahoo, Executive Director (Engineering), Maruti Suzuki India Limited who covered the topic "Mobility" Dr. Mahesh Gupta, Chairman & MD, Kent RO Systems Ltd. Who touched upon "Water & Sanitation"; Prof. Manindra Agrawal, Director, IIT Kanpur who spoke on "Cyber Security" and "Renewable Energy" was covered by Dr. Ajay Mathur, DG, ISA, New Delhi. The Panellists responded to pertinent questions and expounded the challenges and opportunities on the path to a Viksit Bharat as envisaged by the Hon'ble Prime Minister by 2047. The deep insight and perception of the panellists added value to the rich techncial content of the programme and were much appreciated by the eminent audience and students alike.

This was followed by a motivational Fireside Chat in the areas of "Manufacturing" and "AI" with Mr. Bhavish Aggarwal, Founder & Chairman of Ola Consumer, Ola Electric, and India's first AI

unicorn Ola Krutrim as the Guest. The Session was moderated by Prof UB Desai, Vice-President, INAE who asked pertinent questions and the session was interesting, informative and the interactive part much appreciated by one and all. The essence of the Fireside Chat was that not only the technical issues were highlighted but the informal discussions and questions by the students of IIT Delhi enthused them and brought out the importance and success of entrepreneurship of the Guest, as an example to be emulated.

The day ended with the prize distribution of the Poster Session and competition, which was held for Masters' Students and PhD Scholars of IIT Delhi on Dec 19-20, 2024. This was indeed a golden opportunity for them to showcase their research contributions in ten broad engineering disciplines. The Posters were judged by a panel of expert jury members from INAE Fellowship and Faculty of IIT Delhi who also interacted with the students and asked pertinent questions. The students appreciated the Poster Competition and also appreciated the lectures on both days and gained insightful knowledge through the conduct of the Poster Session and participation in the convention. The Networking Dinner was a befitting closure to Day 2 after a day filled with technical inputs and provided a platform for meaningful interactions.

Day 3

The Indian National Academy of Engineering (INAE) Annual Convention 2024 was held on December 19-21, 2024 hosted at Indian Institute of Technology Delhi, New Delhi. The Convention of the Academy was mega event attended by Fellows, Foreign Fellows, Young Associates, Scientists, Faculty and students of IIT Delhi and Invitees. The third day of the INAE Annual Convention 2024 commenced with the Session on Follow-up discussion on "AI/ML: Future Directions, Threats, and Way Forward" moderated by Prof. UB Desai, Former IIT Hyderabad Director and Vice-President, INAE. The Panellists were eminent industry experts viz: Dr. Anand Deshpande, Founder, Chairman and Managing Director of Persistent Systems; Prof. Vineeth N Balasubramanian, IIT Hyderabad; Dr. Rajeev Rastogi, VP ML Amazon India; Dr. Harish Iyer, Melinda and Bill Gates Foundation and Dr. Shubhashis Gangopadhyay, Vice Chairperson, Center for Digital Future, and Founding Dean of ISPP, Economics, Law, Policy Praxis Lab. The relevant issues in the field of Artificial Intelligence and Machine Learning and the challenges and opportunities for advancement in this field that shall help progress of the nation and also ensure a better life for the citizens were deliberated during the discussion.

The Annual General Meeting and Special General Meeting of the Fellows brought an end to the technical events and deliberations and the Induction Ceremony of newly elected Fellows, Foreign Fellows and Young Associates was a memorable moment for the new inductees, as well as their peers and parent organizations to whom they have brought glory by advancing the growth of engineering and technology in their respective domains. After the Networking Lunch the delegates bade farewell and would look forward to the Conventions in future years, as a Calendar event that would be eagerly awaited with meaningful outcomes.