

INDIAN NUCLEAR SOCIETY : AWARDS

The Indian Nuclear Society calls for nominations for the INS Awards for the year 2004, instituted by it. The nominations for the awards may be made by the :

- 1.Head of an academic or industrial organisation having significant activities in the field of Nuclear Science and Technology or related areas.
- 2.Present or past members of the Board of Trustees of the Indian Nuclear Society.
- 3.Emeritus members of the Indian Nuclear Society.
- 4.Present and past presidents of the Indian Nuclear Society.

Seven copies of the duly prepared nominations are to be sent in the prescribed form, which can be downloaded from the INS website <http://www.indian-nuclear-society.org.in> or can be obtained from :

Hon. Secretary,

Indian Nuclear Society,
Project Square, Anushaktinagar,
Mumbai – 400094, Maharashtra.
[Telephones: +91-22-25598327,
25991097 Fax: +91-22-25576261
Mobile: 91-9820387792
e-mail: gdmittal@gmail.com;
gdmittal@roltanet.com]

The Awards :

INS Homi Bhabha Lifetime Achievement Award

The Award carries an amount of Rs. 1 Lakh and a Citation. One award is given every year.

Individuals in recognition of outstanding lifetime achievement in research, technology development, management, operation and maintenance, safety or education in fields related to nuclear sciences and technology are eligible for this award.

INS Awards

The Award carries an amount of Rs. 50,000/- and a Citation. Up to 6 awards are given every year.

Individuals with meritorious scientific and engineering achievements in the following fields are eligible :

- Nuclear Reactor Technology, including Reactor Safety
- Nuclear Fuel Cycle Technologies, including Radiation Safety and Environmental Protection.
- Radiation and Radioisotopes related Technologies and their Applications in different areas including Medicine, Agriculture and Industries.
- High Technology Nuclear Related Areas

INS Industrial Excellence Award

The Award carries an engraved Plaque. One Award is given every year.

Individuals or a Group, belonging to the Indian industry, that has, during the previous three years, made a significant contribution in the nuclear field through innovative technological and/or management approaches, are eligible.

INS Medals

Up to 6 Medals are awarded every year.

An amount of Rs. 10,000 + Gold Medal and a Citation are given to INS members of less than 45 years of age, in recognition of their significant innovative achievements, implementation of new concepts, or outstanding contribution.

INS Branch Award

This is a Rolling Trophy that is awarded once every two years to an INS Branch in recognition of meritorious performance in the areas of membership growth, meetings and programmes, public information, local branch management and overall performance.

INS Eminent Scientist Award

It carries a Citation, Travel expenses and local hospitality for the awardee and spouse. The recipient delivers a series of lectures in India. Frequency not exceeding one every two years.

Individuals with an international stature in nuclear science and technology field or related areas are eligible for this award.

INS Science Communication Award

The Award, not necessarily annual, carries Rs.50,000/- and a Citation.

Individuals or Organisations, in recognition of their outstanding contributions in popularisation of science and technology particularly in nuclear related areas among educators, students and the public.

..... AND INDUSTRIAL TRAINING COURSES

The Indian Nuclear Society has been organizing, from time to time, various courses for the benefit of Indian industries. Following are the courses to be conducted by the Society in near future.

[Application of Finite Element Technique in Industrial Problems](#)

(October 17-21, 2005)

The Finite Element Method is an established technique for analyzing the behavior of structures subjected to a variety of loads. The present course is designed to bridge the gap between the theoretical finite element knowledge and its industrial applications.

The course is meant for engineers faced with the modeling of actual structures in the commercial environment using modern Finite Element systems.

[Course Contents](#)

- Overview of Finite Element method, its mode of operation and the scope of problems it can address,
- Static structural analyses and advice on element and meshing accuracy,
- Finite Element modeling and error control,
- Error sources identified and treatment methods discussed,
- Review of output from modeling,
- Summary of the advantages of a rational approach to modeling, and
- Finite Element models in several “hands-on” computer sessions.

[Corrosion and Condition Monitoring](#)

(October 24-28, 2005)

Variations in the process parameters of environment, temperature and stress during the plant operation lead to degradation of materials. Condition monitoring is one of the crucial inputs necessary for

ensuring plant availability, reliability, safety and productivity.

This course focuses on use of the relevant techniques to ensure safe and reliable operation of the plant components.

[Course Contents](#)

- Basics and forms of corrosion,
- Corrosion monitoring/control,
- Metallurgical failure analysis,
- Vibration monitoring/Acoustic emission testing,
- Thermography/Ferrography /In-situ metallography,
- NDT for monitoring service-induced degradation, and
- Significance of flaws in performance of engineering components

[Pressure Vessel and Piping Design](#)

(November 7-11, 2005)

The present course is designed to bridge the gap between the theoretical aspects of pressure vessel design and its industrial application.

[Course Contents](#)

- Introduction to Pressure Vessel Design Codes,
- Design Basis and Design Criteria,
- Fabrication/Examination/Testing,
- Computer codes for pressure vessel design,
- Case studies on failure of pressure vessels, and
- Computer codes for Piping analysis

For further information, please write to :

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Hon. Secretary,
Indian Nuclear Society,
Project Square, Anushaktinagar
Mumbai – 400 094, India

Phone: 022-2559 8327

Fax : 022-2557 6261

Non-Invasive Blood Pressure (NIBP) Module

While pursuing R&D activities towards its mandate, BARC has developed several spin-off technologies which find wide applications in a variety of sectors. The centre has been passing on these technologies to the government, public and private sectors. Also, with its strong R & D base, a contingent of highly qualified and specialized manpower and a vast infrastructure consisting of ultra modern facilities and latest equipment, BARC provides consultancy and expert scientific services in hi-tech areas.

The Non-invasive Blood Pressure (NIBP) Module is used to monitor blood pressure of patients non-invasively in Intensive Care Units (ICUs). Continuous monitoring of arterial blood pressure and peripheral vascular resistance during surgery as well as in ICU is very essential. The NIBP module uses oscillometric method for the measurement of blood pressure. It comprises a tourniquet, a pressure transducer, an inflation pump and deflation solenoid valve connected to electronic circuitry. The rate of change of pressure (dP/dt) during deflation is used to derive mean, systolic and diastolic blood pressures, in contrast to change in pressure (DP) waveform used in commercially available modules. The advantage of dP/dt waveform over DP is the accurate determination of mean blood pressure. Systolic, diastolic and mean blood pressures are provided repetitively with an average period of 10 minutes (programmable).

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