

DAE – Homi Sethna Chair (HSC) Scheme

Department of Atomic Energy has instituted a scheme known as “**DAE-Homi Sethna Chair**” (**DAE-HSC**) which is intended to utilize the services of active retired scientists, engineers and technologists, who have been involved in high quality research in their specialized disciplines in the units of the DAE and who after retirement are keen to carry out R&D, policy & planning studies on the topics as identified by DAE.

The salient features of the Scheme are:

A) Objectives:

The objective of the scheme is to gainfully utilize the services of active retired scientists, engineers and technologists who have worked in the areas of critical and sensitive technologies and who can constructively contribute **in a regular manner** to the research projects, policy and planning activities of DAE as per the topics identified by the department.

The broad subject matters of interest to DAE for which policy, planning with associated technology development and R&D needs to be carried out are given in Annexure-I. The awardees will work on these critical subject matters or projects and carry out studies on policy issues with the objective of providing to the Department detailed analysis within a prescribed time period. Awardees will also participate in public outreach, delivering lectures in academic programs of DAE, human resource development for the department by acting as mentors to the young scientists and engineers apart from working in the projects assigned under the award. Additionally, he/she could take up writing of monographs or books on topics related to Atomic Energy.

B) Host Institute:

The Host Institute of the HSC may be a unit of DAE (including aided institutions) or DIAS (DAE-Institute of Advanced Studies) or NCPW, DAE. The HSC would work in the same institute from where nominated, no change of Host Institute would be permitted.

C) Eligibility:

Scientists, engineers & technologists retired from units of DAE including Aided Institutions are eligible. Preference will be given to those who were involved in the front-line scientific research or development of sensitive and/or critical, and strategic technologies in the units of the DAE or have expertise in the analysis of issues related to nuclear policies. The Head of the host institute will ensure that the candidate nominated and recommended by his/her institute has rich experience, domain knowledge and expertise in the area of the topic selected for the award.

D) Announcement:

The nominations are invited throughout the year as per the announcement from DAE.

E) Nominations:

The Head of the Host Institute interested in hosting the retired scientist may send nomination to DAE. Before forwarding the nomination, he/she shall ensure that the candidature of the nominee suits the requirement as announced by DAE from time to time.

The nomination shall include the following information:

1. Host Institute
2. Full Office address
3. Name of Candidate
4. Designation (at the time of retirement)
5. Date of retirement
6. Date of birth
7. Personal Contact details (Landline, Mobile, Email Id, Address)
8. Institute/Organization from where retired
9. Topic on which the candidate wishes to work (refer Annexure-I)
10. Title of the project/work
11. Highest degree
12. Field of specialization
13. Professional experience during the last 10 years of service
14. List of honours and awards with dates (including fellowships of the academies)
15. List of publications

16. Write up on the project work / programme (detailed description on the work to be undertaken) to be provided along with work plan and deliverables.
17. Facilities proposed to be sought from the host institute (research, office space, any other), if selected.
18. Recommendation of the Head of the Host Institute with justification of the candidate's suitability on the topic selected (not more than 250 words).

The Head of the Unit / Host Institute can submit the nominations to DAE till online portal on DAE website becomes functional.

F) Selection:

The nominations which can be received throughout the year will normally be reviewed twice a year (preferably April & October) by a high-level committee constituted by Chairman, AEC but the review may be carried out at other times also in special cases. The committee will assess the suitability of the nominee based on their credentials, past experience, and expertise vis a vis requirement for the work as identified by DAE.

G) Tenure:

The tenure of the awardees would initially be for a period of three years, extendable for a period of two years subject to maximum age limit of 70 years and awardees' performance as assessed by the Review Committee.

H) Validity Of Offer:

The offer of the award under the scheme will be valid for six months from the date of issue of the offer, and if the Scientist does not join within six months or accepts any other award or assignment, or employment, the award will be deemed to have been withdrawn. No lien will be allowed.

I) Honorarium:

The HSC will be paid an Honorarium of Rs.1,00,000/- per month. The Honorarium shall be subject to condition that Honorarium + pension does not exceed the last pay drawn by the awardee at the time of retirement. The honorarium of

Rs.1,00,000/- p.m. will have to be reduced wherever necessary. The honorarium will be taxable at the source.

J) Support Grant:

The HSC awardees will be entitled for Support Grant of Rs. 1.5 lakhs per annum which could be utilized for commuting to host institute from local residence and domestic travel for official work.

K) Leave Rules:

The RRC is a regular position. However, the HSCs would be entitled to 30 days leave in a year with honorarium whether in India or abroad. In case going abroad, prior permission would be needed. The period spent by the HSCs in seminars, etc., or in pursuing some collaborative research work in an institution other than the host institution will be treated as on duty provided it has the approval of the Head of the host institution.

L) Annual Progress Report and Renewal of Scheme:

The HSC will submit an annual progress report to Chairman, AEC on the assigned work at the end of each year along with a statement of Expenditure/Utilization Certificate for renewal and release of grant for the next year. The progress reports will be reviewed by a high-level committee constituted by Chairman, AEC. A consolidated report at the end of two-and-a-half years also needs to be submitted, so that the timely review and decision to extend the tenure can be taken on case-to-case basis.

M) Final Technical Report:

The HSC will be required to submit a consolidated technical report for the entire duration of the HSC at the end of the tenure. The report must be detailed and should include information about (a) the original objective(s) of the award, (b) how far these objectives have been achieved, and (c) how the results have benefited the programmes of the DAE. The actual research achievements made under the scheme may be summarized in executive summary which will be part of the Final Technical Report. Copies of manuscripts, preprints and reprints of papers arising from the work completed under the scheme should be enclosed with the Final Technical Report, and submitted to Chairman, AEC.

N) Obligations:

1. The Host Institute, if other than NCPW, shall submit the audited Statement of Expenditure / Utilization Certificate to US/SO (R&D), DAE every year, HSC working for NCPW will be paid directly by the Accounts Division of DAE.
2. The HSC will stand terminated from the date the HSC accepts any paid position elsewhere.
3. Acknowledgement of support in all publications as "HSC" should be made.
4. Final adjustment / settlement of accounts by the Host institution, if other than NCPW, should be done within a period of 30 days of the termination of the award.
5. All patents, rights, designs and inventions derived from the research work of the HSC shall be governed by the norms of the host institution.
6. The HSCs shall ensure timely submissions of all the stipulated reports, provide a copy of all the publications emanating out of the scheme and comply with the directions issued by the department from time to time.

O) Dispute Settlement:

In the event of any dispute arising out of the interpretation or the implementation of this award, the decision of the Department of Atomic Energy shall be final.

➤ **Power Sector:**

- Economics of nuclear power and strategy for reduction of cost of NPPs.
- Accelerating the nuclear power program
- SMR development and deployment.
- Gen IV reactor development for electricity production and hydrogen generation
- Education and training in nuclear safeguards and nuclear law
- Role of nuclear energy in achieving net zero target.
- Strategic planning for fuel management and utilization, (both safeguarded and unsafeguarded), fuel cycle, reprocessing and waste management
- Accelerator development and deployment.
- Nuclear Fusion
- Decommissioning of NPPs

➤ **Non-Power Sector:**

- Radioisotope production and supply for healthcare, industry, agriculture, food preservation, sludge hygenisation, etc.
- Urban Waste Management
- Plastic Waste Management
- Critical minerals and materials
- Technology Innovation for special fuel development
- Research and policy for nuclear batteries
- Quantum computing, cyber security, etc.

➤ **R&D on Strategic and Critical sectors of importance for DAE**