

## **Homi Bhabha Centre for Science Education**

Tata Institute of Fundamental Research  
V. N. Purav Marg, Mankhurd, Mumbai 400 088

### **Visiting Fellowships at HBCSE**

Advt. No. 2/02

HBCSE is a National Centre of TIFR devoted to science and mathematics education from primary up to introductory college level. The Centre is looking for highly competent and committed scientists and communicators holding a Ph.D. degree to contribute to its programmes in the areas described below.

#### **1. Olympiad Programme**

HBCSE is India's nodal centre for the physics, chemistry and biology olympiads. It is also involved in the mathematical olympiad activity. We need Ph.D.s in mathematics, physics, chemistry and biology, having a strong problem-solving ability in their disciplines. They would develop challenging theoretical problems and olympiad-level experiments and train meritorious students at senior secondary levels for the international olympiads.

#### **2. Curriculum Development**

HBCSE is developing model alternative curricula for school science, mathematics and social studies. The primary school level curricular development is underway while middle and secondary levels are to be taken up. Candidates should have originality and insight into their subject with a flair for teaching and writing. We would welcome persons with literary and visual communication talents in addition to a good subject background.

#### **3. Science Popularization**

HBCSE is producing activity and exhibition modules in several areas, including history of science, low cost experimentation, science-technology-society issues, gender issues, health education, mathematics and astronomy. Candidates should have expertise in these or related areas and an ability to present science and mathematics in interesting and innovative ways. Literary, artistic and visual communication ability would be an added advantage.

#### **4. Research in Science and Mathematics Education**

All of the above areas are informed by research. We are looking for eclectic intellectuals with Ph.D. in the natural or social sciences or mathematics who would take up research programs in the following interdisciplinary areas.

- Cognitive studies of science and mathematics learning
- Knowledge organization
- Curriculum and teaching strategies in science and mathematics
- Issues at the interface of science, technology and society
- Technology education at school level
- History and philosophy of science: implications for science education
- Laboratory development and concept formation in physics, chemistry and biology

The Centre also organizes orientation programs for teachers, students and teacher educators. Scientists of the Centre are expected to contribute to these training programs. The preferred age is below 35 years, relaxable for deserving candidates. Please apply enclosing your bio-data and including the following specific details:

1. Date of birth
2. Academic record up to Master's degree
3. One-page description of Ph.D. work
4. Awards and scholarships
5. List of publications (with a brief note on the most significant publications)
6. Experience in teaching and science popularization
7. Names of two referees
8. A comment on the state of science education in the country and suggested improvements (about 250 words)
9. A proposal for the project that you would like to take up at HBCSE (about 250 words)

Applications will be received and screened throughout the year and referees will be contacted for recommendations. Short-listed candidates will be called for a seminar/ interview at HBCSE.

Selected candidates will be offered Visiting Fellowship initially for one year, extendable by one more year. The Fellowship carries an honorarium of Rs 8,000/- upwards p.m. At the end of the Fellowship outstanding candidates have a chance of being considered for absorption in the regular academic cadre of HBCSE.

Please send a hard copy of your application to

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Centre Director  
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