



Science & Engineering Research Board
Department of Science & Technology
Government of India



Confederation of Indian Industry

**In the Year of Science (2012)
Launch of**

Prime Minister's Fellowship Scheme for Doctoral Research

by

Science & Engineering Research Board (SERB),

Department of Science & Technology

&

Confederation of Indian Industry (CII)



INTRODUCTION

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The key enabler of a nation's economic development is the quantity and quality of its human resource, particularly in Science & Technology (S&T). With a third largest higher education system in the world we also have the third largest pool of science and technology professionals. The prowess of our software industry is due largely to the high quality of technical education in the country.

The Bibliometric Study of India's Scientific Publication Output during 2001-10, done by the Department of Science and Technology in July 2012, shows that there has been active research in Chemistry, Physics, Materials Science, Engineering and Clinical Medicine in India in the past few years.

A comparative assessment of 2001-05 and 2006-10 shows that there was a 66 per cent growth in the output of scientific publications. This translates into an average yearly growth rate of 13 per cent. The study shows that engineering research is making significant progress in India. There is a near quadrupling of number of Indian scientific publications on the top 1 per cent journals in the world.

However, despite such developments and positives, the country continues to be plagued with basic problems such as inept handling of water resources, poor quality of drinking water, poor healthcare system, wastage of grain due to shortage of proper storage facilities, wastage of fruits and vegetables due to lack of processing facilities, inadequate utilization of natural resources, shoddy roads, power shortages, wastage and pilferation in distribution system and overall lack of maintenance of national assets as well as low technology intensity in manufactured exports.

This is due to the poor connect between industry and research. Less than 30 per cent of the total investment in R&D in India comes from industry. So even while research output from academic perspective is increasing, from the application side there are still wide gaps.

As per UNESCO Science Report 2010, China has 70 million S&T personnel in which 1.36 million are R&D personnel. In India we have 40 million S&T personnel in which 0.39 million are R&D personnel – less than 1/3rd of China. In terms of density of R&D personnel per 10,000 labor force, China's figure is twice India's.

To address the problem of low industry investment in R&D, the Science Engineering and Research Board (SERB) of the Department of Science and Technology (DST) and the Confederation of Indian Industry (CII) have joined hands to take several focused actions. This fellowship scheme for doctoral research is one such major effort which will be supported equally by SERB and CII.

Fellowship

- Number of Fellowships: 100 Fellowships every year, starting from 2012
- Duration of Fellowships: Maximum four years
- Fellowship Amount: The total fellowship amount will be Rs 6 lakh per annum for a maximum period of four years. Fifty per cent of this amount will come from SERB (being equivalent to the prevailing Government norms for JRF / SRF of maximum Rs 3 lakh per annum and will be revised as per government rule time to time). Rest 50 per cent (matching equivalent of SERB component) will come from a sponsoring company on behalf of CII.
- Areas of Research: STEAM, i.e., Science, Technology, Engineering, Agriculture and Medicine

Eligible Applicants

- In 2012, only those who have already registered for PhD in 2012 in any recognised university or institution of national importance in above areas of research will be eligible to apply
- The registered PhD fellows should have already identified a project
- The project should have practical relevance and industrial applications
- The candidate and the proposed project should qualify on criteria of excellence and relevance.
- Applications with project proposals, as received will be shared with relevant industry to know their interest in co-sponsoring. Scholarships will be given if there is an industry sponsor.
- The candidates may approach relevant industry for sponsorships before submitting applications.
- A Joint Committee of SERB and CII will conduct transparent selection and monitoring of projects.

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