range of sophisticated characterization facilities have been established. Nano Mission has also enabled assured access of Indian scientists to frontline synchrotron radiation facilities in the world. The Government has also set up an Institute of Nano Science and Technology at Mohali, Punjab.

(b) To promote fundamental research promotion and development of research infrastructure, Nano Mission continues to support Individual Scientist-Centric Projects, Thematic Units of Excellence, Joint Institute-Industry linked Projects, Post-Graduate Programmes and Post-Doctoral-Fellowships, International Collaborations, etc. In addition to these activities, Nano Mission has supported the following in last two years:

- 6 Thematic Projects in internationally important, relevant frontier areas such as Energy (artificial Photo synthesis, hydrogen storage, 2-D Materials, Li-ion batteries, supercapacitors, etc.), Health, Agricultural Sensors to give further impetus to scientific research.
- Initiation of collaboration with the Rutherford Appleton Laboratory (RAL), UK to access its top-of-the-line neutron facility of the world. This collaboration will help Indian scientists gain much-needed and much sought- after assured access to all the beam lines of ISIS neutron scattering facility at Rutherford Appleton Laboratory (RAL), UK for carrying out research in Nano Science and Technology.
- India motivated beam line has been initiated at PETRA-III Synchrotron Radiation Facility at DESY, Hamburg, Germany.
- India-Japan Beam Line Phase-II has been continued at the Photon Factory, KEK, Tsukuba, Japan.
- 6 Joint–Industry Institute Projects and Proof-of Concept Projects have been supported for development of technology.
- Nano Science and Technology Associateships and Overseas Visiting Fellowships have been launched for development of human resource.

The Government has accorded high priority to Nano Mission activities as described above and has allocated a sum of ₹ 400 crores for the Twelfth Plan period (2012-17) including 95 crores for the financial year 2016-17.

Indiscriminate Filing Indian and foreign patents

1061. SHRIMATI RENUKA CHOWDHURY: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Council of Scientific and Industrial Research (CSIR) has recently given out a stern message to its laboratories to avoid indiscriminate filing of Indian and foreign patents;

(b) if so, the details thereof along with the reasons therefor; and

(c) the steps taken by Government to put in place a system and process so that worthless patents are not filed and demonetization of patents is pursued vigorously?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI Y. S. CHOWDARY): (a) Yes, Madam. CSIR has sent out a message to all its laboratories to avoid filing of patents without appropriate techno-commercial evaluation.

(b) In order to align the IP strategy of CSIR with the priorities of socio-economic development including escalating costs of patent filings, this messag was sent to exercise utmost due diligence in filing of patents.

(c) CSIR has taken following steps to put in place an appropriate system:

(i) Establishment of IP Directorate at CSIR to analyse IP (Intellectual Property) life cycle from generation to exploitation. .

(ii) Preparation of Standard Operating Procedures (SOP) and guidelines for evaluation of inventions in alignment with National IPR Policy.

Innovative way to fortify rice

1062. SHRIMATI RENUKA CHOWDHURY: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Department of Biotechnology has developed an innovative way to fortify rice with iron and other nutrients, if so, the details thereof; and

(b) the steps taken by Government to take forward the rice fortification model to all parts of the country to deal with nutritional deficiency among the women and children?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI Y. S. CHOWDARY): (a) Yes, Sir. The Department of Biotechnology (DBT) through R&D support to IIT-Kharagpur has developed the requisite technology on rice fortification with Iron for addressing the incidence of anaemia. This involves production of Iron fortified rice premix through extrusion process using broken rice kernels. This iron fortified rice kernel premix matches with the normal rice kernel in shape and size, and when mixed with normal rice in the ratio of 1:100 provides 50% of Recommended Daily Allowance (RDA) of Iron. This technology can also be used to fortify rice with other micro nutrients, as well. The incremental cost of fortification has been estimated by IIT-Kharagpur to be upto 80 paise per kg. of rice.