

Discovery of ink to curb fake printing of passports and counterfeiting of currency notes

1427. SHRI SUSHIL KUMAR GUPTA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that an ink has been discovered by Council of Scientific and Industrial Research (CSIR) and National Physical Laboratory (NPL) to combat the problem of fake printing of passports and counterfeiting of currency notes; and

(b) if so, the details thereof?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. HARSH VARDHAN): (a) Yes Sir.

(b) CSIR-National Physical Laboratory has developed a bi-luminescent security ink which glows in red and green colours when illuminated by two different excitation sources at 254 nano meters (run) and 365 nm, respectively. The ink was prepared in a batch of 1kg and given to Bank Note Press (BNP), Dewas, a unit of Security Printing Minting Corporation of India Ltd. (SPMCIL), New Delhi. The ink is found comparable to the standards that are in use. The formulation can be used to check the authenticity of passports, Government documents, tamper evident labels, identity cards, etc.

Participation of women in scientific research

†1428. SHRI RAMKUMAR VERMA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the steps taken by Government to improve relations between educational institutions and industries in Rajasthan;

(b) the steps taken by Government to encourage women in the field of science and technology;

(c) if so, the details thereof; and

(d) if not, the reasons therefor?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. HARSH VARDHAN): (a) The Department of Biotechnology (DBT) improves relations between academic institutions and industries through Promoting Academic Research Conversion to

†Original notice of the question was received in Hindi.

Enterprise (PACE) programme of Biotechnology Industry Research Assistance Council (BIRAC). BIRAC encourages academia to develop technology/product of societal/national importance and its subsequent validation by an industrial partner. Further, All India Council for Technical Education (AICTE) has an internship programme for M.Tech students with Micro Small and Medium Enterprises (MSMEs). The main objective of this scheme is to nurture an innovation ecosystem that benefits the technologically deficient MSMEs as well as technical institutes. These schemes are implemented at all India level, including Rajasthan. Besides this, 400 AICTE Institutions in Rajasthan have signed around 6000 MoUs with 5 industries to promote internship, placement and other industry-oriented activities. Further, in order to promote Industry-Academia collaboration in Rajasthan, a workshop was organized by AICTE at Malviya National Institute of Technology (MNIT), Jaipur in 2019-20.

(b) and (c) The Department of Science and Technology (DST) started "Knowledge Involvement in Research Advancement through Nurturing (KIRAN)" Scheme to encourage women scientists through various programmes in the field of Science & Technology. 'Women Scientist Scheme (WOS)' under KIRAN is a flagship programme that provides career opportunities including fellowships to unemployed women scientists and technologists, especially those who had a break in career, for pursuing research in frontier areas of science and engineering. There are three major components of Women Scientist Scheme namely, i) Women Scientists Scheme-A (WOS-A) for conducting research in basic and applied sciences, ii) Women Scientists Scheme-B (WOS-B) for projects that entail science and technology (S&T) interventions for societal benefit, and, iii) Women Scientists Scheme-C (WOS-C) that enables them to become Intellectual Property Rights (IPR) professional. In addition to WOS, under 'Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE) Programme' only women Universities are being supported for development of research infrastructure and creation of state-of-the-art research laboratories to enhance women's participation in S&T domain. Mobility Scheme under KIRAN addresses relocation issues of working Women Scientists and provides support in project mode for 2-5 years. During 2017-18, Indo-US Fellowship for Women in STEMM (Science, Technology, Engineering, Mathematics and Medicine) has been started to encourage Indian women scientists and technologists to undertake international collaborative research in premier institutions in USA for duration of 3-6 months. Further, women scientists and technologists are also encouraged to avail capacity building programmes related with

R&D, entrepreneurship, managerial skills and leadership under 'National Programme for Training of Women Scientists and Technologists working in Government Sector'. In addition to this, Department of Biotechnology (DBT) is also implementing 'Biotechnology Career Advancement and Re-orientation Programme (BioCARE)' to encourage women scientists in Biotechnology research. This year, DST has started Phase-I of a new scheme "Vigyan Jyoti" in 50 districts of the country for girl students of Class 9 to 12 in order to encourage girls to pursue education and career in science and technology particularly in the areas where women are underrepresented. Further, Council for Scientific and Industrial Research (CSIR) provides 5 years' age relaxation to women candidates in upper age limit for award of Fellowships/Associateships to pursue doctoral and postdoctoral research in order to encourage women candidates to opt science and technology as career.

(d) Not applicable.

Guest house development in Konkan region of Maharashtra

†1429. SHRI NARAYAN RANE: Will the Minister of TOURISM be pleased to state:

(a) the number of guest houses built in the undeveloped and rural areas of Konkan region of Maharashtra during the last three years, details thereof, place-wise;

(b) if not, the reasons therefor; and

(c) the criteria/rule for building a guest house in the country?

THE MINISTER OF STATE OF THE MINISTRY OF TOURISM (SHRI PRAHALAD SINGH PATEL): (a) to (c) Construction of guest houses in the country is primarily undertaken by the private sector. The Ministry of Tourism, Government of India only approves operational guest houses under its voluntary scheme of classification/approval of guest houses. The relevant guidelines of the Ministry of Tourism, is given in Statement (*See below*).

One guest house has been approved by the Ministry of Tourism, in Shahpur, District Thane in Konkan region, during the last three years. The details are as below:

†Original notice of the question was received in Hindi.