

President to award scientists for translating research to popular write up

Eight Ph.D. scholars and postdoctoral fellows will be receiving awards for by the Hon'ble President Shri Ram Nath Kovind on National Science Day for translating their research into a popular write up.

Shri Kovind will confer the Augmenting Writing Skills For Articulating Research (AWSAR) award to the winners at the National Science Day Celebrations on February 28 at Vigyan Bhawan. While six awards will be given for Ph.D. Scholars, two awards will be given for Post Doctoral Fellows.

The Ph.D. scholars receiving the awards are Ms. S. Chris Felshia, from CSIR-Central Leather Research Institute, Chennai, Mr. Anand Abhishek, from the Academy of Scientific and Innovative Research (AcSIR) at CSIR-Central Electronics Engineering Research Institute, Pilani, Mr. Sayantan Sur, from Department of Zoology, University of Delhi, Mr. Chitrang Dani, from Jawaharlal Nehru Centre for Advanced Scientific Research and Mrs. M. L. Bhavya, CSIR-Central Food Technological Research Institute, Mysuru, India. The postdoctoral fellow receiving the awards is Dr. Chandran Rethnaraj from Marine Biology Regional Station, Zoological Survey of India, Chennai, and Dr. Joyita Sarkar, from the Department of Physics, Savitribai Phule Pune University.

AWSAR award is an initiative of the Department of Science and Technology (DST), Government of India, and it attempts to disseminate Indian research in Science, Technology & Innovation being pursued by Ph.D. Scholars and Post Doctoral Fellows in popular science writing format.

DST has been celebrating 28 February as National Science Day (NSD) each year. It is the day Raman Effect, a landmark in scientific discoveries, was announced by eminent scientist Sir CV Raman. The celebration consists of lectures, demonstrations, exhibitions, quiz programmes, and so on for students and also the masses. The focal theme of NSD-2020 is "**Women in Science.**"

Following are the brief profiles of AWSAR awardees –

Ms. S. Chris Felshia, Ph.D. Scholar from CSIR-Central Leather Research Institute, Chennai, is pursuing her research on “Microbial Mediated Management of Phenol and its Derivatives in Aqueous and Soil Phase: An Approach using free and Encapsulated Cells.” Her research findings are published in International journals and also presented at various National and International conferences. The story entitled “Baci: The Fight for Earth” is a story, details environmental pollution and its impact. In brief, a horrendous incident happened after the industrialisation and globalisation and its resultant pollution by chemicals which are let out of the industry. Day by day, its effect was turning fatal. The story describes the meeting between Chris and Baci, and the efforts to combat the effect of the chemicals and protect the environment and humanity.

Mr. Anand Abhishek is a Ph.D. scholar under the Academy of Scientific and Innovative Research (AcSIR) at CSIR-Central Electronics Engineering Research Institute, Pilani. He has worked in the field of high-frequency converter design, digital control design, and embedded

solutions for renewable resources-based power generation. He has published more than ten research papers in various National and journals. His popular science story entitled “Empowering Rural India with Decentralized Energy Systems” narrates the problems of access to electricity in rural India and a possible solution through DC microgrid. During a usual train journey, he found a striking insight into the crisis of electricity in the countryside. Under the ever-lasting impact of that journey, he started dwelling on the possible causes and solutions for rural electrification. This led him to develop renewable energy-based DC microgrid with power-sharing capability among houses for extra-power demand.

Mr. Sayantan Sur is a Ph.D. scholar at Department of Zoology, University of Delhi - His primary research focus is to unravel and understand the mechanistic details of temperature modulated changes in the physiology of migratory finches. He has published two papers in peer-reviewed journals, participated in national and international conferences, and has worked at Salk Institute under the Indo-US exchange program. His popular science story entitled “A Century of Global Warming and its Impact on Bird Migration,” recounts how the changes in ambient temperature might affect the general physiology of birds. His published article highlighted the involvement of a key temperature sensing the molecule, TRPM8, in altering the seasonal reproduction. Another published article showed for the first time how temperature might affect metabolism at the gene level in a migratory finch.

Anirban Sarkar, a PhD scholar at Chittaranjan National Cancer Institute (CNCI), Kolkata, is pursuing his research on “Immunometabolism in cancer and its modulation by Neem leaf glycoprotein (NLGP).” He has one research paper in an international journal to his credit. His popular science story entitled ‘Guardian of the Malady’ is a conversation between him and his curious teenage cousin brother, discussing cancer, how it initiates and progresses, and different approaches to counteract the disease. It details the immunotherapeutic approach to treat cancer by using a naturally derived product named Neem leaf glycoprotein (NLGP), a promising, economic, nontoxic, immunomodulator in simple language. Title and references from popular Marvel Comic Movies make his narration very witty and interesting.

Mr. Chitrang Dani is a Ph.D. research scholar at Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru. He is a curious and aspiring chronobiologist, studying the evolution of circadian rhythms of fruit-flies *Drosophila melanogaster* in natural conditions. Apart from his academic work, he is interested in science and nature photography and in popularising circadian biology and scientific thinking among common people. His popular science story entitled “Out of the Lab: a Clock Conversation” is an informal dialogue between him and his cousin, which is an amalgamation of a few real conversations. Chitrang got interested in rhythms and chronobiology by wondering about the same fundamental questions which his cousin asks and as the conversation progresses, he seems to be reliving the curiosity

Mrs. M. L. Bhavya is a Ph.D. Scholar at CSIR-Central Food Technological Research Institute, Mysuru, India. She is passionate about taking up challenging research problems and tasks associated with food science and technology in particular. She has research experience in the field of food safety and food processing by exploring the effects and efficiency of non-thermal preservation technology. She has also published seven research papers in peer-reviewed international journals and presented her research work in various National and International

conferences. Her popular science story entitled “Lights! Sound! Action! - Germ killer light and sound make food safe” is a story which narrates how we can inactivate disease-causing microorganisms in food using cold techniques. In the story, two bacteria discuss strategies to avoid the dangers of novel decontamination techniques, namely the use of light and ultrasound for food decontamination.

Dr. Chandran Rethnaraj, is a Post Doctoral Fellow from Marine Biology Regional Station, Zoological Survey of India, Chennai, pursuing his research on “Resilience Assessment and Identifying Local ‘Stock Reefs’ a Novel Proactive Management Approach on India’s Coral Reefs Conservation, In Response to the Ever Increasing Global Warming.” He has 19 years’ experience in coral reefs of India. He has published more than 28 research papers on national and international journals and books. With opportunities to study the status of all the coral reef regions along the mainland coasts of India, he is keen to conserve the coral reefs' wealth of our country. His popular science story entitled “Save Coral Reefs, The Paradise on Earth to Save Ourselves” describes a science-based novel and systematic approach which can save our coral reef resources for forthcoming generations.

Dr. Joyita Sarkar, is a Post Doctoral Fellow from the Department of Physics, Savitribai Phule Pune University. She is experienced in the multidisciplinary areas of biotechnology, chemistry, and material sciences and has applied her knowledge to work in biomaterials, drug screening, and chromatography. She has published eight research articles in international journals and has presented her work in many national and international conferences. Her popular science story entitled “Coming Soon: Animal Model Free System for Pharmaceutical Testing” is a story that portrays a small step towards artificial organs. “A large number of animals being sacrificed to discover medicines” have been her major driving force. Her work has unfolded how important is it to mimic the conditions inside the human body in the laboratory to develop an animal-free system.