



सत्यमेव जयते

भारत सरकार

GOVERNMENT OF INDIA

विज्ञान एवं प्रौद्योगिकी विभाग

DEPARTMENT OF SCIENCE & TECHNOLOGY



AUGMENTING WRITING SKILLS
for
ARTICULATING RESEARCH



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VIGYAN PRASAR
विज्ञान प्रसार





AUGMENTING WRITING SKILLS

for

ARTICULATING RESEARCH

Unleash the spirit of Science Communication

अवसर (शोध की अभिव्यक्ति के लिए लेखन कौशल), विज्ञान एवं प्रौद्योगिकी विभाग (डीएसटी), भारत सरकार की एक पहल है। इसका उद्देश्य भारत में विज्ञान, प्रौद्योगिकी और नवोन्मेष के क्षेत्र में पीएचडी शोध छात्रों और पोस्ट डॉक्टरल फ़ैलो द्वारा वैज्ञानिक शोधों की जानकारी का प्रसार लोकप्रिय विज्ञान लेखन प्रारूप में किया जाना है।



AWSAR (Augmenting Writing Skills for Articulating Research)
is an initiative of Department of Science and Technology (DST),
Government of India. It attempts to disseminate Indian research in
Science, Technology & Innovation being pursued by PhD Scholars
and Post-Doctoral Fellows in popular science writing format.



AWSAR Awardee
(Post Doctoral Fellow Category)

OUTSTANDING STORY

PDF Category



DR. SANGEETA DUTTA

POST DOCTORAL FELLOW,
JAWAHARLAL NEHRU CENTRE FOR ADVANCED SCIENTIFIC RESEARCH,
BENGALURU

Dr. Sangeeta Dutta is a Post-doctoral fellow at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) in the field of Cancer and RNA biology. She has completed her PhD from INMAS, DRDO, Delhi and has received the DBT-research associateship for her post-doctoral project. She has five publications and one patent to her credit.

About AWSAR Story : _____

Her popular science story “JUNK that turns out to be the GOLD” addresses the role lncRNAs in cancer’s pathobiology. lncRNAs are a vast collection of non-coding RNA with cell and stage-specific expression. Dysregulation, in their expression has been associated with many human disease conditions. She studied the mechanism of novel lncRNA Hmrl and found its role in leukaemia biology.

AWSAR Awardees
(PhD Category)

First Prize

PhD Category



MS. POOJA MAURYA,

PhD SCHOLAR,

CSIR- CENTRAL DRUG RESEARCH INSTITUTE, LUCKNOW

Ms. Pooja Maurya is a doctoral Research Scholar at CSIR- Central Drug Research Institute, Lucknow, working in cancer drug development and drug resistance mechanisms. She has received the 'Young Scientist Award' at ICERB 2018 and the 'Women Research excellence award' at EIABSHWAR 2020.

About AWSAR Story :

Her popular Science story entitled "Power of resistant cancer: Plucked by drug combination strategy" is a conversation of cancer cell with its enzymes called Topoisomerase 1 and Ligase I, which work to survive cancer cells. This story details the identification of topoisomerase 1 drug resistance mechanism in colorectal cancer cells and combating strategy.

Second Prize

PhD Category



MS. INDU JOSHI,
PhD SCHOLAR,
INDIAN INSTITUTE OF TECHNOLOGY, DELHI

Ms. Indu Joshi is a doctoral student in the Computer Science and Engineering department at the Indian Institute of Technology Delhi. She is a recipient of the prestigious Raman-Charpak Fellowship. She has represented India at reputed international forums such as BRICS Young Scientist Conclave and Heidelberg Laureate Forum. She has been awarded by the former President of India, Shri. Pranab Mukherjee for her academic excellence. Her doctoral research explores advanced deep learning techniques for automated fingerprint analysis.

About AWSAR Story :

Her popular science story entitled “Fostering Digital India through Artificial Intelligence Guided Fingerprint Matching of Rural Indian Population” discusses the application of artificial intelligence to improve fingerprint matching of the rural Indian population. Specifically, she proposes a fingerprint enhancement model to enhance the quality of fingerprint images and facilitate improved fingerprint matching of the rural population.

Third Prize

PhD Category



MS. SHRUTI SONI,
PhD SCHOLAR,
INDIAN INSTITUTE OF SCIENCE, BANGALORE

Ms. Shruti Soni is a doctoral research scholar working in point-of-care diagnostics in the Indian Institute of Science, Bangalore. Her PhD research work also includes developing a low-cost, portable sample preparation module to purify and concentrate nucleic acids for disease diagnosis from biological samples.

About AWSAR Story : _____

Her popular science story entitled “Pain-free way to manage your sugar rush” addresses an essential aspect of diabetes management that includes regular monitoring of blood sugar levels. The current diagnosis method involves an invasive and painful way of monitoring blood glucose level, which requires vein puncture or finger pricking, adding unnecessary discomfort to the patients. The story suggests a more user-friendly diagnostic body fluid that can be collected in a non-invasive and pain-free manner and can be used to monitor glucose levels.

AWSAR Awardees (PDF CATEGORY)

AWARDEES OF BEST STORIES

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Dr Pallavi Baliga, Post Doctoral Fellow from College of Fisheries, Mangalore, is pursuing her research on “Identification, Cloning, Characterisation and assessment of the potentiality of an Aeromonas phage endolysin as an antimicrobial agent against Multi Drug resistant Aeromonas hydrophila”. Her popular science story entitled “Virus- Bane or Dark Knight?” has been selected for AWSAR Award.

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Dr Smriti Mahajan, Post Doctoral Fellow from Indian Institute of Science Education and Research, Mohali, is pursuing her research on “Properties and evolution of nearby galaxies”. Her popular science story entitled “Our Cosmic Suburbs: the Distribution of Galaxies and their Environments” has been selected for AWSAR Award.

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Dr Naveen Kumar, Post Doctoral Fellow from Shiv Nadar University, Uttar Pradesh, is pursuing his research on “Synergistic A2BR inhibitor/Paclitaxel combination therapy for Triple Negative Breast Cancer Treatment”. His popular science story entitled “You Can’t Escape, We are After You” has been selected for AWSAR Award.

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Dr Sarmistha Saha, Post Doctoral Fellow from Indian Institute of Technology, Gandhinagar, is pursuing her research on “Design of Antinephrolithiatic Peptide-Nanostructures”. Her popular science story entitled “An Affordable and Safe Drug, Peptano Could Replace Surgeries in Kidney Stones: Atma Nirbharta Ki Taraf Ek Pahal” has been selected for AWSAR Award.

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“

Dr Amit Kumar, Post Doctoral Fellow from Department of Botany, University of Lucknow, Lucknow, is pursuing his research on “Mitigation of arsenic and enhancing rice grain yield through elemental based formulation for arsenic affected areas of Uttar Pradesh”. His popular science story entitled “Low Grain Arsenic Rice Cultivation in Arsenic Contaminated Areas for Safer Human Consumption” has been selected for AWSAR Award.

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Dr Saranya Kailasam, Post Doctoral Fellow from CSIR- Central Leather Research Institute, Chennai, is pursuing her research on “Biosynthesis of chromium nanoparticles from tannery effluent by using marine phosphate solubilising bacteria and their applications on remediation of tannery effluent”. Her popular science story entitled “Curto: the Savior... Expedition to Save the Agro Ecology” has been selected for AWSAR Award.

”

Dr Akhileshwar Kumar Srivastava, Post Doctoral Fellow from CSIR-Central Food Technological Research Institute, Mysuru, is pursuing his research on “Unravel the anticancerous role of curcumin biotransformed targeting tumor suppressor protein p53 in gastric cancer”. His popular science story entitled “गैस्ट्रिक कैंसर के प्रोटीन पर हल्दी का प्रभाव-किचन से क्लिनिक तक” has been selected for AWSAR Award.

Dr Arnab Banerjee, Post Doctoral Fellow from Jadavpur University, Kolkata, is pursuing his research on “Understanding the dynamics and spatio-temporal variation of plankton in relation to ecosystem functioning of reservoirs through modelling approaches”. His popular science story entitled “Mathematics in Biology: Behold the Future” has been selected for AWSAR Award.

Dr Rohitesh Gupta, Post Doctoral Fellow from Center for Cellular and Molecular Biology, Hyderabad, is pursuing his research on “Role of ST3Gal-I and GCNT3 in progression and metastasis of Breast Cancer”. His popular science story entitled “The Road Travelled Under Unusual Circumstances” has been selected for AWSAR Award.

“

Dr Varucha Misra, Post Doctoral Fellow from ICAR-Indian Institute of Sugarcane Research, Lucknow, is pursuing her research on “Developing sugar beet varieties suitable for Indian Agroclimates”. Her popular science story entitled “A Magical Formulation Spell on Drought Harvested Sugarcanes” has been selected for AWSAR Award.

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Dr Veenita shah, Post Doctoral Fellow from Indian Institute of Technology, Bombay, is pursuing her research on “Investigating on the student-centric teaching-learning strategies and models in MOOCs.” Her popular science story entitled “Driving Teacher Development and Student Engagement in the Age of Digital Learning” has been selected for AWSAR Award.

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Dr Minashree Kumari, Post Doctoral Fellow from Indian Institute of Technology, Delhi, is pursuing her research on “Health risk assessment of emerging contaminants in water matrices”. Her popular science story entitled “Research Study Develops Methods to Remove Trihalomethanes in Drinking Water” has been selected for AWSAR Award.

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Dr Manisha Gautam, Post Doctoral Fellow from Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur, is pursuing her research on “Proteomics and metabolomics based investigation of kidney stone degrading biocatalysts from *Macrotyloma uniflorum* (Horse gram)”. Her popular science story entitled “Horsegram: a Journey from Orphan to Adoption” has been selected for AWSAR Award.

Dr Padma Ishwarya S., Post Doctoral Fellow from CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, is pursuing her research on “Development of natural foam booster and emulsifier from spent coffee grounds for food & beverage applications”. Her popular science story entitled “Bunty & Bubble(Y)”... an Animated L(Ove)lfe Story ...” has been selected for AWSAR Award.

Dr Eranezhuth Wasan Awin, Post Doctoral Fellow from Indian Institute of Technology Madras, is pursuing his research on “Polymer derived ceramics”. His popular science story entitled “Here Comes the Sun and I Say it’s Alright” has been selected for AWSAR Award.

“

Dr Harvinder Khara, Post Doctoral Fellow from Tata Institute for Genetics and Society, Bangalore, is pursuing her research on “Genetically modified mosquitoes for malaria control”. Her popular science story entitled “Mosquitoes to Combat Malaria: a Problem Turned into an Opportunity.” has been selected for AWSAR Award.

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Dr Sarfraj Siddiqui, Post Doctoral Fellow from University of Lucknow, Uttar Pradesh, is pursuing his research on “Gender based differences in stress and anxiety disorders may be associated with differential regulation and expression of serotonin receptor subtypes”. His popular science story entitled “She With High Stress and Anxiety: it’s a Matter of Gender-Based Difference of Serotonin Receptor System” has been selected for AWSAR Award.

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Dr Madhunika Agrawal, Post Doctoral Fellow from Panjab University, Chandigarh, is pursuing her research on “To explore comparative Neuroprotective mechanistic profiling of Phycocyanin and its Nanoformulation in experimental models of Alzheimer’s disease”. Her popular science story entitled “When Memory Fades: Looking for the Ways to Stop or Slow it’s Progression” has been selected for AWSAR Award.

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“

Dr Vivek Dixit, Post Doctoral Fellow from All India Institute of Medical Sciences, New Delhi, is pursuing his research on “Assessment of Bone health in Transgender Population of India”. His popular science story entitled “The Health Status of Third Gender in India: Myth vs Reality” has been selected for AWSAR Award.

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Dr Koushik N, Post Doctoral Fellow from Space Physics Laboratory, Thiruvananthapuram, is pursuing his research on “Middle Atmospheric Dynamics”. His popular science story entitled “Hidden Wavy Connections in the Sky” has been selected for AWSAR Award.

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Dr Samadhan Pawar, Post Doctoral Fellow from Indian Institute of Technology Madras, is pursuing his research on “Understanding the Onset of Combustion Instability and its Control”. His popular science story entitled “How I Silenced the Roaring Flames in Engines” has been selected for AWSAR Award.

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AWSAR Awardees (PhD CATEGORY)

AWARDEES OF BEST STORIES

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Mr. Jaideep Malik, PhD Scholar from Indian Institute of Technology, Roorkee, is pursuing his research on “Novel layered titanates and niobates: applications in photocatalysis”. His popular science story entitled “The Magical Pond of Aheli Devi” has been selected for AWSAR Award.

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Mr. J.C. Walter Devaa, PhD Scholar from Madurai Kamaraj University, Tamil Nadu, is pursuing his research on “Conservation of rainbow trout (pisces: salmonidae) in south India”. His popular science story entitled “Remembering the Remnants of the Rainbow Trout” has been selected for AWSAR Award.

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Mr. Debanjan Chandra, PhD Scholar from Indian Institute of Technology Bombay, is pursuing his research on “Pore characterization of gas shale and coal for gas recovery and carbon storage”. His popular science story entitled “Geological Carbon Sequestration Pathway for a Greener Future” has been selected for AWSAR Award.

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Ms. Yashika Agrawal, PhD Scholar from National Centre for Cell Science, Pune, is pursuing her research on “Understanding the role of F-box protein FBXO41 in tumours”. Her popular science story entitled “F-box protein FBXO41- a Solution to Stubborn and Resistant Cancers” has been selected for AWSAR Award.

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Mr. Shankar V. Kundapura, PhD Scholar from Poornaprajna Institute of Scientific Research, Bengaluru, is pursuing his research on “Rational modification of immune checkpoint receptors of PD-1 for cancer immunotherapy”. His popular science story entitled “Reprogramming the Immune System to Fight Cancer.” has been selected for AWSAR Award.

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Ms. Prayasee Baruah, PhD Scholar from North-Eastern Hill University, Shillong, is pursuing her research on “Spectroscopic studies on the modulatory effect of drugs and nano-bio interfaces on some selected neurodegenerative enzyme activities”. Her popular science story entitled “Ignorance, not Bliss; Forgetfulness, not a Boon!” has been selected for AWSAR Award.

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Mr. Seemesh Bhaskar, PhD Scholar from Sri Sathya Sai Institute of Higher Learning (SSSIHL), Puttaparthi, is pursuing his research on “Exploring nanophotonics using hybrid nanomaterials for monitoring bioanalytes”. His popular science story entitled “Unity in Diversity- a Moonshot to Disruptive Innovations” has been selected for AWSAR Award.

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Ms. Jayeeta Bijali, PhD Scholar from University of Calcutta, West Bengal, is pursuing her research on “Characterization and utilization of sulphur nanoparticles for the anthracnose disease management of chili and understanding the host-pathogen interaction”. Her popular science story entitled “Cell-Doctors and the Tug of War” has been selected for AWSAR Award.

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Mr. Satadru Chakrabarty, PhD Scholar from Indian Institute of Technology, Gandhinagar, is pursuing his research on “Carbon Quantum Dots”. His popular science story entitled “A Glitch in the Matrix” has been selected for AWSAR Award.

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Mr. Vignesh Kumar, PhD Scholar from Indian Institute of Technology, Delhi, is pursuing his research on “Experimental and computational studies of the flow characteristics over a generic aircraft carrier with and without the island”. His popular science story entitled “BURBLE – the Revenge of Vayu” has been selected for AWSAR Award.

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Mr. Abhishek Kumar, PhD Scholar from Indian Institute of Technology Bombay, is pursuing his research on “Dieless manufacturing”. His popular science story entitled “Dieless Manufacturing: Next-Generation Sheet Metal Forming Technology” has been selected for AWSAR Award.

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Ms. Kumari Sushmita, PhD Scholar from Indian Institute of Science, Bengaluru, is pursuing her research on “Polycarbonate-based hybrid structures for electromagnetic interference shielding”. Her popular science story entitled “Polymer Based-Hybrid Material as ‘Electromagnetic Kawach’” has been selected for AWSAR Award.

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Ms. Priyansha Kaurav, PhD Scholar from Indian Institute of Technology, Delhi, is pursuing her research on “Tissue characterization and Imaging using Sub millimeter to terahertz”. Her popular science story entitled “Undergoing Breast Conserving Surgery: Don’t Worry! It’s Quick” has been selected for AWSAR Award.

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Ms. Anusha Vupputuri, PhD Scholar from Indian Institute of Technology, Kharagpur, is pursuing her research on “Automated ischemic lesion detection and quantification from adult clinical stroke using multi-parametric MRI”. Her popular science story entitled “For The Precious Sixty Minutes” has been selected for AWSAR Award.

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Mr. Shubham Singh, PhD Scholar from Indian Institute of Science Education and Research, Pune, is pursuing his research on “Deregulated lipid pathways in ageing and degenerative disorders”. His popular science story entitled “Healthy Ageing – a Long Standing Dream.” has been selected for AWSAR Award.

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Ms. Richa Mishra, PhD Scholar from Indian Institute of Science Education and Research, Bhopal, is pursuing her research on “MicroRNA-mediated control of innate immunity during infectious and non-infectious diseases”. Her popular science story entitled “Drama Decoded: a Tale of Tiny Non-Coder in Humans” has been selected for AWSAR Award.

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Ms. Himani Negi, PhD Scholar from CSIR-Indian Institute of Petroleum, Dehradun, is pursuing her research on “Combating the problems associated with heavy and waxy crude oil”. Her popular science story entitled “Waste to Value: Eco-Friendly Bio-Material could be a Game Changer for Oil Industries” has been selected for AWSAR Award.

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Mr. Sanket Shah, PhD Scholar from ACTREC (Tata Memorial Centre Advanced Centre for Treatment, Research and Education in Cancer), Mumbai, is pursuing his research on “Role of H2A isoforms in cancer”. His popular science story entitled “Our Buzz Light Year in Making: to Infinity and Beyond!” has been selected for AWSAR Award.

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Ms. Annu T. Mathew, PhD Scholar from Vellore Institute of Technology, Vellore, is pursuing her research on “Wastewater treatment using nanoparticles”. Her popular science story entitled “Removal of Water Pollutants using Sugarcane Juice” has been selected for AWSAR Award.

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Ms. Arya Krishnan, PhD Scholar from Indian Institute of Information Technology and Management, Kerala, is pursuing her research on “Finger Vein Biometrics”. Her popular science story entitled “Finger Vein – a Journey not in Vain” has been selected for AWSAR Award.

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Mr. Bhavesh Prajapati, PhD Scholar from Gujarat Technological University, Ahmedabad, is pursuing his research on “Quantum key distribution”. His popular science story entitled “Sharing Secrets: the Quantum Magic” has been selected for AWSAR Award.

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Ms. Bhaswati Kashyap, PhD Scholar from Institute of Advance Study in Science and Technology, Guwahati, is pursuing her research on “Therapeutic Potential of Traditional Knowledge Based Medicinal Plants and their active metabolites on Peripheral Insulin Resistance”. Her popular science story entitled “Premna Herbacea : a Diabetes Miracle Cure ??” has been selected for AWSAR Award.

Mr. Amarjeet Singh, PhD Scholar from Department of Zoology, University of Delhi, is pursuing his research on “Evaluation of immunostimulatory properties of seeds and leaves of *Achyranthes aspera* Linn. (*Amaranthaceae*) in rohu, *Labeo rohita* and magur, *Clarias batrachus*”. His popular science story entitled “Improving Fish Health and Growth Through Eco-Friendly Approach” has been selected for AWSAR Award.

Mr. Mohit Nirwan, PhD Scholar from Defence Institute of Physiology & Allied Sciences, Delhi, is pursuing his research on “Effect of yogic practices in Antarctica”. His popular science story entitled “Yes! Yoga Works an Antarctica!” has been selected for AWSAR Award.

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Mr. Kapil Chauhan, PhD Scholar from Indian Institute of Technology, Ropar, is pursuing his research on “Distribution-level synchrophasor assisted monitoring and control of active distribution networks”. His popular science story entitled “Blackout: Predict It to Prevent it” has been selected for AWSAR Award.

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Ms. Baby Sharma, PhD Scholar from Amity University, Rajasthan, is pursuing her research on “Studies on various strategies of textile dye bioremediation using bacterial extracellular polymeric substance (EPS)”. Her popular science story entitled “The Clock is Ticking: An Army of Nano-Rescuers to Hasten Environment Rescuing” has been selected for AWSAR Award.

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Mr. Sourav Ghosh, PhD Scholar from Indian Institute of Technology, Madras, is pursuing his research on “High-performance supercapacitors: materials predictions and performance analysis”. His popular science story entitled “It’s a Battery... It’s a Capacitor... it’s a Supercapacitor!” has been selected for AWSAR Award.

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Ms. Shravani Ladkat, PhD Scholar from Symbiosis Institute of Health Sciences, Pune, is pursuing her research on “A study on quality of grains stored using waste heat recovered from cold storage”. Her popular science story entitled “What a Waste!” has been selected for AWSAR Award.

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Mr. Shekhar Kedia, PhD Scholar from Indian Institute of Science, Bangalore, is pursuing his research on “Super resolution microscopy reveals nanoscale determinants for amyloidogenic processing of app in alzheimer’s disease”. His popular science story entitled “The Devil in the Details: Mistakes in Small Details Linked to Alzheimer’s Disease” has been selected for AWSAR Award.

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Ms. Aswathy V Nair, PhD Scholar from Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Thiruvananthapuram, is pursuing her research on “Insights into the Anti-Inflammatory, Wound healing and Gastroprotective potential of Phyllocephalum rangacharii (Gamble) Narayana , an ethnomedicinal plant used by Cholanaikkan tribe of Kerala”. Her popular science story entitled “Tribal Medicine: the Corridor to Modern Green Medicine” has been selected for AWSAR Award.

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Mr. Venkatesh T, PhD Scholar from CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, is pursuing his research on “Semi automation of jaggery production units - experimental and modelling studies”. His popular science story entitled “Breaking the Sugar Habit: an Inspirational Thought Attributed to Indian Farmers” has been selected for AWSAR Award.

Mr. Uthappa A.R., PhD Scholar from College of Post Graduate Studies, GKVK, UAS, Bangalore, is pursuing his research on “Assessment of ecosystem services under different land use systems in semiarid conditions”. His popular science story entitled “Soil Engineers: a Secret Society Building Life Underneath” has been selected for AWSAR Award.

Ms. Reshmi Das, PhD Scholar from Indian Institute of Science, Bangalore, is pursuing her research on “Nutrient Fluxes and Foaming in Urban Sewage Fed Aquatic Systems”. Her popular science story entitled “Environmental Crime Scene Investigation - the Lake that Spews Forth and Fire” has been selected for AWSAR Award.

“

Ms. Tripti Ahuja, PhD Scholar from Indian Institute of Technology, Madras, is pursuing her research on “Towards vibrational tomography of ligand protected nanoparticles”. Her popular science story entitled “Say no to Adulteration- a Custom-Built Raman Spectrometer for Rapid and Sensitive Detection of Diverse Chemical and Biological Species” has been selected for AWSAR Award.

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Ms. Nisha Kumari Jha, PhD Scholar from Pondicherry University, Pondicherry, is pursuing her research on “Screening and characterizing quorum quenching metabolites from natural food sources against food borne pathogens”. Her popular science story entitled “Quorum Quenchers and the Desolation of Quorum Sensing Army in Pathogens” has been selected for AWSAR Award.

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Ms. Swati Sharma, PhD Scholar from Indian Institute of Technology, Kanpur, is pursuing her research on “Applications of peptides in mechanics of mesenchymal stem cells”. Her popular science story entitled “A Mechanic” has been selected for AWSAR Award.

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Mr. Prabir Kumar Das, PhD Scholar from University of Calcutta, Kolkata, is pursuing his research on “Study of Indian drought conditions using long-term meteorological, soil moisture and satellite derived vegetation parameters”. His popular science story entitled “Rought Forecasting: a Game Changer in Indian Farming” has been selected for AWSAR Award.

Ms. Swadhina Koley, PhD Scholar from Birla Institute of Technology, Ranchi, is pursuing her research on “Assessment of seasonal agriculture dynamics and future expansion scenario in Jharkhand using time series satellite data”. Her popular science story entitled “Monitoring the Thirsty Croplands: the ‘Eye in the Sky’ Approach” has been selected for AWSAR Award.

Ms. Akanksha Bhardwaj, PhD Scholar from Central University of Punjab, Bhatinda, is pursuing her research on “Adsorption performance of nutrient leached biochar for organic and inorganic contaminants”. Her popular science story entitled “Nature Smiles When a Scientist Meets a Farmer!” has been selected for AWSAR Award.

“

Mr. Manish Pathak, PhD Scholar from Indian Institute of Science Education and Research, Kolkata, is pursuing his research on “Rescue and traffic jam resolution in ants”. His popular science story entitled “**चींटियों का ट्रैफिक जाम?**” has been selected for AWSAR Award.

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Ms. Anita Yadav, PhD Scholar from Banasthali Vidyapith, Rajasthan, is pursuing her research on “Application of Text Mining in Financial Market”. Her popular science story entitled “Money Mantra - Using Artificial Intelligence to Assist Small Investors” has been selected for AWSAR Award.

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Ms. Vanita Sharma, PhD Scholar from Indian Institute of Technology, Roorkee, is pursuing her research on “Metal sulfide nanoparticles and metal sulfide nanocomposites: synthesis, properties and applications”. Her popular science story entitled “The Dark Side of Colors: Stains Removed by ‘NANO’ Particles” has been selected for AWSAR Award.

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Mr. Brijesh Singh Yadav, PhD Scholar from Indian Institute of Technology, Hyderabad, is pursuing his research on “Investigation on CIGS thin film absorber layer by inkjet printing for solar cell application”. His popular science story entitled “Printable Solar Cell Thinner Than Hair” has been selected for AWSAR Award.

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Ms. Anagha Sharma, PhD Scholar from Indian Institute of Technology, Delhi, is pursuing her research on “Development & characterization of nanostructured surfaces”. Her popular science story entitled “NANO: an Underlying Powerful Kingdom” has been selected for AWSAR Award.

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Ms. Kanimozhi G., PhD Scholar from The Gandhigram Rural Institute-Deemed to be University, Gandhigram, is pursuing her research on “Artificial Intelligence based algorithms for Breast Cancer Detection”. Her popular science story entitled “Early Detection Easy Protection” has been selected for AWSAR Award.

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Ms. Himani Uppal, PhD Scholar from CSIR–National Physical Laboratory, Delhi, is pursuing her research on “Study of functionalized materials for effective removal of toxic contaminants from water”. Her popular science story entitled “The Effectiveness of Zincox for Capturing Toxic CR from Water within 5 minutes” has been selected for AWSAR Award.

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Ms. Vijeta Sharma, PhD Scholar from Banaras Hindu University, Banaras, is pursuing her research on “Deep learning for intelligent classroom monitoring system”. Her popular science story entitled “Everyone Deserve Quality Education” has been selected for AWSAR Award.

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Ms. Asmita Singha, PhD Scholar from Gauhati University, Assam, is pursuing her research on “An assessment of euryale ferox salisbury genetic resources of NE India and study of plant growth promoting bacteria from its microhabitat”. Her popular science story entitled “Agathokakological Nature of Microbes: a conversation” has been selected for AWSAR Award.

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Ms. Vidya V.M., PhD Scholar from National Institute of Technology, Kurukshetra, is pursuing her research on “Computational design, synthesis and optoelectronic properties of functionalized 1,3,5-triazine derivatives.” Her popular science story entitled “Tom goes in but Jerry comes out: A magical story of Non-Linear Optics” has been selected for AWSAR Award.

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Ms. Sanchari Chatterjee, PhD Scholar from Institute of Life Sciences, Bhubaneswar, is pursuing her research on “Studies on interacting partners of non-structural protein-2 (nsP2) of Chikungunya virus”. Her popular science story entitled “Autobiography of Chikungunya virus” has been selected for AWSAR Award.

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Mr. Ankit Arora, PhD Scholar from Indian Institute of Technology, Madras, is pursuing his research on “Excitonic properties of two dimensional transition metal dichalcogenides for Optoelectronic applications”. His popular science story entitled “From Electrons to Excitons: tamaso mā jyotirgamaya” has been selected for AWSAR Award.

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Ms. Shomaila Khanam, PhD Scholar from Birla Institute of Technology, Mesra, is pursuing her research on “Photophysical properties of plasmonic metal tungstates”. Her popular science story entitled “Die the Dye” has been selected for AWSAR Award.

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Mr. Aditya Banerjee, PhD Scholar from St. Xavier’s College (Autonomous under University of Calcutta), Kolkata, is pursuing his research on “Deciphering the molecular-genetic regulation of diverse signaling pathways to generate fluoride tolerant rice.” His popular science story entitled “It’s no Silly Con as Silicon does Ensure ‘Paddy-Perfect’ Farming in Fluoridated Soils” has been selected for AWSAR Award.

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Ms. Anisha Jain, PhD Scholar from JSS Academy of Higher Education and Research, Mysuru, is pursuing her research on “Repurposing of commercially existing drugs for treatment of dysmenorrhoea”. Her popular science story entitled “Do you know the “A-B-C-D” in therapeutic world of infertility?” has been selected for AWSAR Award.

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Ms. Suparna Khatun, PhD Scholar from Indian Institute of Technology, Kharagpur, is pursuing her research on “Self-assembly of intrinsically disordered protein”. Her popular science story entitled “Diabetic Flowers” has been selected for AWSAR Award.

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Mr. P. Narasimha, PhD Scholar from Indian Institute of Technology, Hyderabad, is pursuing his research on “Investigations of triclosan induced behavioral abnormalities and mechanisms using zebrafish”. His popular science story entitled “O Triclosan! To use, or not to use, that’s the question!!” has been selected for AWSAR Award.

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Mr. Debayan Dasgupta, PhD Scholar from Indian Institute of Science, Bangalore, is pursuing his research on “Targeted drug delivery, magnetic hyperthermia, nanorobots”. His popular science story entitled “The Adventures of a Nanorobot: a Fantastic Voyage into the Human Body” has been selected for AWSAR Award.

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Ms. Suchitra Pradhan, PhD Scholar from CSIR - Central Food Technological Research Institute, Mysuru, is pursuing her research on “Understanding the mechanism of chromosome condensation in *M. smegmatis*”. Her popular science story entitled “Winding the Unwound: the Condensing Proteins” has been selected for AWSAR Award.

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Mr. Shushobhit Chaudhary, PhD Scholar from Indian Institute of Technology, Delhi, is pursuing his research on “Error characterization of satellite-based rainfall estimates over India”. His popular science story entitled “Making Satellite-Based Rainfall Estimates more Reliable” has been selected for AWSAR Award.

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Mr. Sufyan M. Shaikh, PhD Scholar from Indian Institute of Technology, Madras, is pursuing his research on “Alloy development using first-principle density functional theory”. His popular science story entitled “Quantum Mechanics & Supercomputers: a New Era in Alloy Development” has been selected for AWSAR Award.

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Mr. Abhijit Sarkar, PhD Scholar from Indian Agricultural Research Institute, New Delhi, is pursuing his research on “Synthesis and evaluation of controlled release NP-fertilizer formulations on enhancing nutrient use efficiency in wheat”. His popular science story entitled “Slow But Steady Wins the Race, Applicable for Fertilizers” has been selected for AWSAR Award.

Ms. Ritutama Ghosh, Ph.D. Scholar from Indian Institute of Technology Bombay, is pursuing her research on “Biophysical studies on binding, fibrillation and drug delivery aspects of serum albumin”. Her popular science story entitled “The 60-Year-Oldrotein Folding Problem: Still Unresolved” has been selected for AWSAR Award.

Ms. Uzma Mehraj, PhD Scholar from Indian Agricultural Research Institute, New Delhi, is pursuing her research on “Induction of doubled haploids through androgenesis and characterization of doubled haploid based hybrids for qualitative and quantitative traits in marigold (*Tagetes erecta* L.)”. Her popular science story entitled “The more the Marigold, the Merrier the Farmer” has been selected for AWSAR Award.

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Ms. Tilba Thomas, PhD Scholar from Rajiv Gandhi Institute of Technology, Kottayam, is pursuing her research on “Emergy approach for sustainable building material choices”. Her popular science story entitled “The Never Ending Life - an ‘Emerging’ Promise” has been selected for AWSAR Award.

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Ms. Shilpi Verma, PhD Scholar from CSIR-National Physical Laboratory, Delhi, is pursuing her research on “Investigation on graphene oxide based nanocomposites for point-of-care electrochemical biosensors”. Her popular science story entitled “No Hassle Mental Health Assessment: Detect Dopamine in a Flash” has been selected for AWSAR Award.

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Ms. Amudeep Singh, PhD Scholar from Post Graduate Institute of Medical Education and Research, Chandigarh, is pursuing her research on “Comparative impact of two educational intervention strategies for improving Quality of Life of cervical cancer patients reporting at PGIMER, Chandigarh: a two group RCT”. Her popular science story entitled “Together we CAN: from Fear to Faith” has been selected for AWSAR Award.

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Ms. Anupama Mogha, PhD Scholar from Panjab University, Chandigarh, is pursuing her research on “Polyurethane nanocomposites”. Her popular science story entitled “Clean Green Nanocomposites” has been selected for AWSAR Award.

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Mr. Rohit Kapila, PhD Scholar from Indian Institute of Science Education and Research, Mohali, is pursuing his research on “Evolutionary Biology”. His popular science story entitled “What Doesn’t Kill you Makes you Stronger: Adaptation to Juvenile Malnutrition Leads to the Evolution of Stress-Tolerance in Fruit Flies.” has been selected for AWSAR Award.

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Ms. Keerthi Somraj, PhD Scholar from ICFAI Foundation of Higher Education (IFHE) University, Hyderabad, is pursuing her research on “Network on Chip”. Her popular science story entitled “A Journey Towards the Improvement of an Electronic Kingdom’s Communication” has been selected for AWSAR Award.

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Ms. Ashakiran Maibam, PhD Scholar from CSIR-National Chemical Laboratory, Pune, is pursuing her research on “Small molecule activation on 2D materials”. Her popular science story entitled “Are Computers Ready to Take Over the Chemistry of Ammonia Synthesis?” has been selected for AWSAR Award.

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Ms. Kamini Singh, PhD Scholar from Indian Institute of Technology, Kanpur, is pursuing her research on “Analysis of distributed energy market for emerging market players”. Her popular science story entitled “Smart Grid: Smarter than you Think...!!” has been selected for AWSAR Award.

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Ms. Meghana Thorat, PhD Scholar from CSIR-National Chemical Laboratory, Pune, is pursuing her research on “Production and application of bacterial cellulose”. Her popular science story entitled “Nanocellulose from Micro Factories: the Leading Edge Material” has been selected for AWSAR Award.

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Ms. Neha Gupta, PhD Scholar from National Atmospheric Research Laboratory, Chittoor, is pursuing her research on “Characterization of Mars upper atmosphere”. Her popular science story entitled “Why an Indian Girl Joined the Police Force on Mars?” has been selected for AWSAR Award.

Mr. Siva Kumar A.V., PhD Scholar from Sri Ramachandra Institute of Higher Education and Research, Chennai, is pursuing his research on “Assessment of autonomic functions by Dynamic pupillometry using Infra red videography in Diabetic patients”. His popular science story entitled “Dynamic Pupillometry - an Indigenously Developed, Technology Leveraged Cost-Effective Diagnostic Tool for Multiple Clinical Applications” has been selected for AWSAR Award.

Ms. Snigdha Bhutange, PhD Scholar from Visvesvaraya National Institute of Technology, Nagpur, is pursuing her research on “Biocementation”. Her popular science story entitled “Biocementation: Magic by Mother Nature and her Children” has been selected for AWSAR Award.

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Ms. Kanaka Ghosalkar, PhD Scholar from National Institute for Research in Reproductive Health (NIRRH), Mumbai, is pursuing her research on “Effect of redox changes on sperm motility apparatus.” Her popular science story entitled “From Dali’s Persistence to the Satyug of Information Processing: Progressive Paradigm Shifts in Neuroscience and Artificial Intelligence” has been selected for AWSAR Award.

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Ms. Vipasha Sharma, PhD Scholar from CSIR-Central Scientific Instruments Organisation, Chandigarh, is pursuing her research on “Design and synthesis of bio-receptor for cortisol detection”. Her popular science story entitled “Stress: we can Measure you now” has been selected for AWSAR Award.

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Ms. Arunima Kalita, PhD Scholar from CSIR-Institute of Microbial Technology, Chandigarh, is pursuing her research on “Deciphering the role of Glutamine synthetase as a sensor to intracellular manganese”. Her popular science story entitled “Finding the Strength: the Way out is the Way in” has been selected for AWSAR Award.

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Ms. Anvita Kerkar, PhD Scholar from National Centre for Polar and Ocean Research, Goa, is pursuing her research on “Primary productivity variability in the Indian Sector of Southern Ocean: Implications of potential controlling factors”. Her popular science story entitled “Wanderers Making Researchers Ponder: an Icy Tale” has been selected for AWSAR Award.

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Mr. Subhadip Chakraborty, PhD Scholar from University of Calcutta, West Bengal, is pursuing his research on “Analytical modelling and measurements of bioelectrical properties of different biological constituents by employing impedimetric and capacitive spectroscopy”. His popular science story entitled “‘Sensible’ Sensors in Diagnostics and a Ride with a Purpose” has been selected for AWSAR Award.

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Ms. Radhika Wazalwar, PhD Scholar from Indian Institute of Science, Bangalore, is pursuing her research on “Epoxy based nanocomposites for aircraft application”. Her popular science story entitled “Can a Material Derived from Pencils Enhance Aircraft Performance?” has been selected for AWSAR Award.

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Mr. Sankaralingam L, PhD Scholar from SASTRA Deemed to be University, Tamil Nadu, is pursuing his research on “Angle of attack measurement and estimation”. His popular science story entitled “Simple Things are Crucial” has been selected for AWSAR Award.

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Mr. Shyam Kumar M, PhD Scholar from Indian Institute of Technology, Madras, is pursuing his research on “Effect of turbulence on droplet interactions in a polydisperse droplet field”. His popular science story entitled “A Step Towards Better Rain Prediction” has been selected for AWSAR Award.

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Ms. Pooja Saklani, PhD Scholar from West Bengal University of Animal and Fishery Sciences, Kolkata, is pursuing her research on “Nutritional composition of dried bombay duck (harpadon nehereus)”. Her popular science story entitled “Bombay Duck: a Fish!” has been selected for AWSAR Award.

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Mr. Kausik Ghosh, PhD Scholar from Vidyasagar University, West Bengal, is pursuing his research on “Changing pattern of hydrogeomorphology and sedimentary deposits of the River Tista: possible role of anthropogenic and climatic factors”. His popular science story entitled “Monsters in the Himalayas: a New Approach Towards Understanding the Role of Sediment-Eaterdams” has been selected for AWSAR Award.

Mr. Sandip Pal, PhD Scholar from CSIR-Central Salt And Marine Chemicals Research Institute, Bhavnagar, is pursuing his research on “Ion exchange membranes with high electrochemical properties for different kind of electrochemical applications.” His popular science story entitled “Solar-Powered Indigenous Electrodialysis Unit: for Providing Drinking Water in a Primary School Near Bhavnagar, Gujarat” has been selected for AWSAR Award.

Ms. Nitika Rana, PhD Scholar from Panjab University, Chandigarh, is pursuing her research on “Understanding expression dynamics and genomic variability of genes regulating nutritional and cooking quality-related traits in rice (*Oryza sativa*).” Her popular science story entitled “Fight Against Hidden Hunger: the ‘Rice’ Way” has been selected for AWSAR Award.

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Ms. Lubna Abidin, Ph.D. Scholar from Jamia Hamdard, New Delhi, is pursuing her research on “Optimization of extraction process and development of formulation of bio-active compounds of *Boswellia serrata* Roxb. *Carthamus tinctorius* L. and *Lawsonia inermis* L. for the Management of Arthritis”. Her popular science story entitled “Lawsonia, the Chroma in Mehendi: the Hidden Hero” has been selected for AWSAR Award.

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Ms. Rhea Mahajan, PhD Scholar from University of Jammu, Jammu, is pursuing her research on “Impact of social media intelligence to predict crime based on sentiments and geo-tagged locations using big data mining”. Her popular science story entitled “Thugs of Social Media: Exposing Trollers, Bullies and Criminals out!” has been selected for AWSAR Award.

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Ms. Sneha Misal, PhD Scholar from Savitribai Phule Pune University, Pune, is pursuing her research on “Development of Micro/Nano capsule for cancer diagnosis and treatment”. Her popular science story entitled “An Expedition of Curcumin for Hunting Down Tumors” has been selected for AWSAR Award.

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Mr. Manohara H.M., PhD Scholar from Jain Global Campus, Jain deemed to be University, Karnataka, is pursuing his research on “Design and synthesis of functional materials for universal water purification with simultaneous value addition”. His popular science story entitled “Eco-Aerogel Membrane- Fluoride and Arsenic Filter of the Future” has been selected for AWSAR Award.

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Ms. Anukriti Singh, PhD Scholar from Banasthali University, Rajasthan, is pursuing her research on “Investigation of mechanisms involved in AGTR1 positive Cancer: Implications in Therapy.” Her popular science story entitled “A Tale of two Cancers” has been selected for AWSAR Award.

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Mr. Kiran John U., PhD Scholar from Sacred Heart College (Approved research center M.G University Kottayam), Kochi, is pursuing his research on “Structural and Spectroscopic studies of Nano/bulk Semiconductor materials doped glasses/polymers by Sol-Gel technique”. His popular science story entitled “Probing Vitamin C Through Fluorescent Semiconductor Quantum Dots” has been selected for AWSAR Award.

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Ms. Nisha Singh, PhD Scholar from Indian Institute of Science Education and Research, Kolkata, is pursuing her research on “Fate and transport of nanoplastics in environment”. Her popular science story entitled “Surviving the Plastocene- Era of Plastics” has been selected for AWSAR Award.

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Ms. Suganiya Murugan, PhD Scholar from Vels Institute of Science, Technology and Advanced Studies, Chennai, is pursuing her research on “Development of an intelligent hybrid driver hypovigilance system”. Her popular science story entitled “Ensuring Road Safety by Monitoring Driver Behaviour” has been selected for AWSAR Award.

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Mr. Amritpal Singh Chaddha, Ph.D. Scholar from University of Lucknow, Uttar Pradesh, is pursuing his research on “Geochemical characterization of the rock/desert varnish and its application to electrochemical devices”. His popular science story entitled “Rock Varnish: Nature’s Superhero with Shielding Powers!” has been selected for AWSAR Award.

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Ms. Meenakshi Wadhvani, PhD Scholar from All India Institute of medical sciences, New Delhi, India, is pursuing her research on “Epidemiological study for childhood visual impairment in North India.” Her popular science story entitled “It’s Alarming- Recent Population Based Survey for Assessing Eye Care Need in Visually Impaired Children in North India” has been selected for AWSAR Award.

Mr. Antarip Poddar, PhD Scholar from Indian Institute of Technology, Kharagpur, is pursuing his research on “Active matter dynamics in complex environments”. His popular science story entitled “Microbots: Tiny Warriors Ready to Fight Demons Inside your Body” has been selected for AWSAR Award.

Ms. Ayushi Trivedi, PhD Scholar from Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, is pursuing her research on “Assessment of quantum recharge requirement for revival of Kanari river”. Her popular science story entitled “Reviving Hopes: Re-Establishment of a Lost River” has been selected for AWSAR Award.

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Ms. Shisa Ullas, PhD Scholar from ICAR-Indian Agricultural Research Institute, New Delhi, is pursuing her research on “Association Mapping for flower related traits in Indian bred rose varieties using Simple Sequence Repeat markers”. Her popular science story entitled “Identifying Genomic Regions to Develop Indian Roses with Novel Traits” has been selected for AWSAR Award.

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Ms. Neha Vishnoi, PhD Scholar from Indian Institute of Technology, Ropar, is pursuing her research on “Gas turbine fuel flexibility: swirl flame stability, thermoacoustics, and emissions”. Her popular science story entitled “Cleaner and Greener Power Generation” has been selected for AWSAR Award.

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Ms. Shelly Banyal, PhD Scholar from Dr. Y. S. Parmar University of Horticulture and Forestry, Himachal Pradesh, is pursuing her research on “Environmental Impact Assessment of National Highway Expansion on Mountainous Terrain”. Her popular science story entitled “Himalayan Diversity at Crossroads: Impact of Road Expansion Project” has been selected for AWSAR Award.

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Ms. Vandana Yadav, PhD Scholar from Doon University, Dehradun, is pursuing her research on “Nano-engineered modification of TiO_2 based photocatalyst for photodegradation of selected emerging water contaminants”. Her popular science story entitled “UV light on! Catalyst action starts! - Clean Wastewater!” has been selected for AWSAR Award.

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सत्यमेव जयते

DEPARTMENT OF SCIENCE & TECHNOLOGY

Technology Bhawan, New Mehrauli Road, New Delhi - 110 016

Tel: +91-11-26590541
