

# CSIR IN MEDIA



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## CSIR-NIScPR is the largest government organization of India that publishes more than 15 journals in S&T under open access mode: Prof. Ranjana Aggarwal

CSIR-NIScPR

10<sup>th</sup> December, 2022



CSIR-NIScPR (National Institute of Science Communication & Policy Research) is involved in creating livelihood and foster skill development in rural areas through CSIR technologies. Recent cutting-edge fields are being worked on by various R&D divisions of the lab. Scientometric has been one of the institute's strongest areas and CSIR-NISTADS (which was one of the laboratory which together with CSIR-NISCAIR merged to become NIScPR) was instrumental in bringing this area as a focus area of research and input to policy making in India. These were the words of Prof. Ranjana Aggarwal, Director, CSIR-NIScPR who was delivering a welcome address in an International Workshop on 'Research agenda, Social needs and Open science' organized by CSIR-NIScPR.

Prof. Aggarwal highlighted that CSIR-NIScPR is the largest government organization in the nation that publishes more than 15 journals in a variety of research fields in an open access mode as there is no APC involved for publishing along with popular science magazines publications to bridge the gap between science and society. An online repository National Open Periodicals Repository (NOPR) of CSIR-NIScPR also provides to access of older papers from anywhere in the world. She concluded by emphasizing that CSIR-NIScPR is



working towards solving problems under the motto "One Earth, One Family, and One Future." The global challenges have called for scientific research to increasingly reshape their agenda to focus more on societal problems. The reshaping can be seen prominently in the STI (Science-Technology-Innovation) policy framing of different countries and funding bodies. Responsible research and innovation, open science, open innovations are some of the key terms of new era that get space in policy articulations of different countries. Innovation System is also paying serious attention to informal, grass root and frugal innovations as they intervene to address unmet societal challenges. Cross-disciplinary interactions across different stakeholders have become important in this environment. The policy interactions need to be more evidence based to reshape the agenda and design pathways for implementation. In this context, an International Workshop on Research Agenda, Social needs and Open Science was organized on 8 December 2022 at CSIR-NIScPR. The conference was addressed by eminent scholars and policy makers from India and abroad.

Dr. Sanjay Kumar Mishra, Sr. Advisor, Department of Biotechnology, put forward his initial remark about the subject of workshop as putting three oceans of knowledge set into one go, namely bibliometrics, scientometrics and infometrics. Dr. Mishra urged to take into consideration social needs of societies, countries and on global level in research and research agenda to extract maximum benefit out of scientific research to mankind. He also opined that science advisory role is as important as research output. Usually science research is in general pro urban, pro affluent, there is need to be new focus on society oriented and need for synchronization of science and society. Bibliometrics and scientometrics tool can be used to understand the gap in the research for society by scientific communities.

Dr. Sujit Bhattacharya, Chief Scientist & Dean-Policy Research, CSIR-NIScPR and Coordinator of this Workshop began his talk by giving a brief overview of STS (Science, Technology and Society), innovation studies and Scientometrics research, drawing upon the strong linkages among these fields of research. He stressed that the contemporary global challenges have called for science-technology-innovation agenda be shaped by societal needs and user driven approach.



Dr. Ismael Rafols, UNESCO Chair, Diversity and Inclusion in Global Science Centre for Science and Technology Strategies (CWTS), Leiden University, Netherlands delivered the keynote address. Dr. Rafols reinforced UNESCO recommendation of diverse and inclusive matter for research agenda for benefit of whole human kind. He brought forth the usual notion that research agenda tends to favour elite and rich though not universal but true to a greater extent. He justified his argument by describing concentration of research in global north, being driven by market demands and incentivized by few narrow academic goals and social groups. Dr. Rafols highlighted that research agendas are not in sync with SDG goals in higher and middle income countries. Evidence indicates better alignment in least developing countries of research with SDGs. He emphasized upon the need for more open access to science and having more open infrastructure so that maximum benefit can be achieved by mankind. He concluded by highlighting need for inclusion of citizen in sciences to lessen the misalignment.

Prof. Saradindu Bhaduri, Associate Professor, Centre for studies in Science Policy, Jawaharlal Nehru University, New Delhi and coordinator of the Trans-Disciplinary Research Centre on frugality studies (a joint initiative of JNU with Leiden University) gave his presentation on how research agenda, innovation, regulation, and user driven research conflict with each other. He highlighted some interesting engagements between policymakers and stakeholders. He highlighted how useful and widely used appliances such as stove suffer from agencies not giving standard certification.

Dr. Vivek Kumar Singh, Professor and Head of the Computer Science Department, Banaras Hindu University (BHU), Varanasi provided an overview of open access and its various forms, such as Gold, Platinum, and Diamond open access. He highlighted the open archive available at India such as the IndiaRxiv, eprints by the Indian Institute of Science, Krishikosh by the ICAR etc. Dr. Singh correctly emphasized the need for making research accessible to society because there is a gap in knowledge access in India, and we need to seek for effective policy implementation to address this. Dr. Kavita Shah, Professor, Purdue University, USA gave a brief insight of the changing environment she has been observing in India now. The



infrastructure, and support to research and many institutions now are in India which is bringing a positive change for doing high end research. She felt that this opportunity calls for students and researchers to make their research more aligned to the challenges faced by the society.

Dr. Madhulika Bhati, Principal Scientist, CSIR-NIScPR and Dr Anurag Kanojia, Policy Fellow, Department of Computer Science, BHU as discussant drew upon the important learning from this workshop. They stressed upon the important argument and key issues that linked the different presentations together.

Dr. Shiv Narayan Nishad, Scientist, CSIR-NIScPR gave a broad overview of the ongoing project on Social Network Analysis by CSIR-NIScPR. This study led by Dr. Sujit Bhattacharya and team in which he is the Co-Principal Investigator is exploring how social network analysis can be developed as a resource material for its application in different fields of studies. The project intends to impart training and provide the resources developed in open access.

The interactive session led to many questions and comments that enriched the workshop. The large number of young researchers who were among the attendee raised many important issues related to their research and how this workshop has benefitted them to think of Open access, aligning their research in proper direction, etc. At the end of the workshop, Dr. Sandhya Lakshmanan, Scientist CSIR-NIScPR proposed vote of thanks. Dr. Kasturi Mandal, Principal Scientist, CSIR-NIScPR anchored the whole event and young researchers who acted as rapporteurs.



## Two-day riot of colour begins at Botanical Garden in Lucknow

CSIR-NBRI

10<sup>th</sup> December, 2022

The two-day Chrysanthemum and Coleus – 2022 show started at the Central Lawn, of the Botanical Garden of CSIR-National Botanical Research Institute, Lucknow, on Saturday. This is one occasion where people can see the entire diversity of Chrysanthemum flowers, types, colours, shapes and also learn their cultivation practices.



PK Trivedi, director, CSIR-NBRI, Lucknow inaugurated the show. SK Tewari, chief scientist and convener of the show said that this year 72 exhibitors participated in the show with a total of 569 exhibits.

The show, which is popular among Lucknowites, is being organised after two years due to the Covid-19 pandemic.

A large number of people visited the show on day one. This show provides an opportunity for the public to enjoy and to develop knowledge on Chrysanthemum and Coleus, an official said.

Seventy-five unique varieties of Chrysanthemum germplasm were also kept on display to commemorate the Azadi ka Amrut Mahotsav theme of the government of India.

Besides, a separate counter has been also set up to inform about the Floriculture Mission, a national mission being run by the CSIR, New Delhi in about 24 states of the country. Interested flower growers/entrepreneurs/farmers can contact NBRI experts for floriculture related issues/problems.



The winners of some of the memorial trophies and challenge cups are as follows:

King of the Show–Ranjit Singh Memorial Trophy - for a specimen pot of large-flowered Chrysanthemum with single plant bearing single bloom Suman Agrawal, Lucknow

Queen of the Show- Ranjit Singh Memorial Trophy - for a specimen pot of small-flowered Chrysanthemum La Martiniere College

Prince of the Show –Quazi Syed Masood Hasan Running Challenge Trophy - for a specimen pot of spider bearing single bloom by Suman Agrawal.

Before the show was opened for the public, panels of judges judged the exhibits in different sections of the show. The show will also remain open on Sunday, December 11, 2022 from 10 AM to 6 PM.

The flower show will conclude on Sunday with the prize distribution to winners of the event from 4 PM. Prof Alok Kumar Rai, V-C, Lucknow University, Lucknow will be the chief guest of the prize distribution ceremony, while Sandeep Tiwari, chief medical superintendent, Trauma Centre, KGMU, Lucknow will grace the occasion as guest of honour.



## JustMyRoots submits two major patents that profess to be game changers

CSIR-CFTRI

10<sup>th</sup> December, 2022

JustMyRoots are pioneers in Intercity Perishable Food Delivery (web and app), connecting people back to their roots. When people move from their own city to a new place, it is difficult to accept the new culture and its taste. For all of them who miss their home and home cooked food, JustMyRoots will deliver you the essence of your culture and love from home, all packed in delicious food and more! They are currently working with 600+ top brands with a premium portfolio of 7,500+ products and delivering to 30+ cities across metros, tier1 & tier2 cities, and expanding. The company has announced the submission of its two revolutionary patents that are going to change the course of the food delivery industry.

JustMyRoots, along with CSIR-CFTRI (Council of Scientific & Industrial Research) (Central Food Technological Research Institute), has developed biodegradable thermo-stable containers for cold and hot supply chains for food products. The containers developed for hot food chain supply are capable of keeping perishable food hot between 42-65 degrees Celsius for up to 10 hours. This technology will reform food delivery for restaurants located 10+ km away or even in another city. The technology used for cold supply chain containers is capable of keeping perishable food fresh for up to 72 hours by maintaining its temperature between 2-8 degrees Celsius. The new technology will help the company to expand its services both domestically and internationally. They already use a state-of-the-art packaging system which keeps the flavours intact, and a cooling system that stores the food at 2-8 degrees Centigrade, keeping the food fresh without preservatives for up to 24 hours.

With the new packaging, it will pick up the food from the restaurant in the original restaurant container and transport it to the JustMyRoots office, where it would be placed in thermo-stable, biodegradable, reusable packaging and air shipped to the receiving city. The order is picked up from the airport and delivered to the customer by a delivery agent in the receiving city.



The technologies that are available in the market are rigid non-biodegradable containers which are not suitable for reverse logistics and therefore do not help in reducing carbon footprint, nor are they capable of holding food at the required temperatures for as long as JustMyRoots is offering. This technology invented by the company will significantly change the way we look at take-out food.

Samiran Sengupta, CEO & founder, JustMyRoots, is an alumnus of IIM-A and IMD Lausanne. He has held many global and regional roles in Shell and Reckitt Benckiser, mostly in the area of Supply Chain and Business Processes. He is experienced in Building Technology based Supply Chain and Demand Management Enterprise Applications. He says, “With JustMyRoots you are never away from either your favourite restaurant or the nostalgic dish cooked by your mom, we have perfected the art of intercity perishable food delivery without adding preservatives or freezing the food. Our two new patents are going to allow us to expand our horizon domestically as well as internationally.”



## Leaping ahead. Fuel cell buses: CSIR-NCL is working with industries for materials and storage tanks

CSIR-NCL, CECRI

09<sup>th</sup> December, 2022

CSIR-National Chemical Laboratory, part of the government of India's Council for Scientific and Industrial Research, is working on developing materials fit for hydrogen generation and storage, such as special tanks made of carbon fibre and composites, says Magesh Nandagopal, Principal Scientist and Head – Technology Management Group, CSIR-NCL told businessline during an interaction at the Industry Institutions Partnership Summit 2022

NCL has been reaching out to industries and many of them have come on board, he said. It is partnering with some companies for testing and associated areas. "Some industries have already leaped and done some work. We don't want to recreate it, whatever is done, we just want to leap ahead," he added.

### Sourcing global technology

Is there an opportunity to source global technology? Nandagopal said there are limitations in adapting the global solutions, We can learn from them, but the right approach will be to have indigenous technology and solutions.

"What will happen is that global firms may give us the technology, but they won't give us the catalyst, which is one of the most crucial components technology-wise and value-wise. Hence, the fuel cell bus that NCL demonstrated was developed from scratch."

"The next 20 years will be an important period where there will be cut-throat scenario. If we have an indigenous solution to it, then we are in a better position. But, we have a long way to go. Efficiencies have to improve and commercialisation has to reach a certain stage. But we're not being complacent about it as our journey started much earlier in 2002," he said.

CSIR started working on fuel cell technology in 2002 and developed everything in-house from



scratch for its fuel cell bus. In 2008, it filed one of the first patents for the fuel cell technology, and 4 months prior to the launch of the National Hydrogen Mission, which was announced in March 2022 by the Central Government, India's first indigenously developed hydrogen fuel cell bus, developed by CSIR-NCL and CSIR-Central Electrochemical Research Institute (CSIR-CECRI) in collaboration with Sentient Labs, was demonstrated in Pune.



## SMVDU hosts int'l conference on biosciences, chemical technology

CSIR-IIIM

09<sup>th</sup> December, 2022



A three-day international conference on "Emerging Trends in Biosciences and Chemical Technology-2022" was hosted by the School of Biotechnology, Shri Mata Vaishno Devi University in collaboration with CSIR-IIIM, Jammu and BRSI from December 3 to 5.

The chief guest of the international conference was Dr Jitendra Singh, Union Minister of State (Independent Charge) for the Ministry of Science and Technology. Prof Manoj Kumar Dhar, a distinguished scientist and former Vice Chancellor of the University of Jammu was the guest of honor.

“This conference provided a forum for the exchange of ideas, the generation of new concepts, and the discussion of contemporary concerns in the biological and chemical sciences. It was attended by eminent scientists, professors, and scholars from academia and industry to discuss the future trends in Biosciences and Chemical technology with the purpose of undertaking the challenges in the field,” the university said in a statement.

The conference consisted of thirteen sessions of varied plenary speeches and guest lectures



by famous scientists from Argentina, Brazil, Greece, Malaysia, Mexico, Singapore, South Korea, Thailand, the United States, the United Kingdom, and Vietnam, as well as eminent scientists from the host country. It also included abstracts from nearly 300 participants from across the country and abroad. A book titled "Practical Biochemistry" authored by Dr Indu Bhushan was released by the Dr Jitendra Singh during the event.



## International Conference at NML: Focus on Corrosion and Coating

CSIR-NML

09<sup>th</sup> December, 2022

The International Conference on Corrosion and Coating (i3C), organized by the Indian Institute of Metals (IIM) Jamshedpur Chapter in association with Tata Steel Ltd, CSIR-National Metallurgical Laboratory (CSIR-NML), Jamshedpur, and NIT Jamshedpur, kicked off today at CSIR-NML Auditorium. Around 250 participated from several leading global organizations.

Dr. Kamachi Mudali, Vice Chancellor, VIT Bhopal was the Chief Guest during the valedictory function. Dr. Mudali delivered a lecture on High performance Coatings for Aggressive Corrosive Environments. He explained how high Phosphorous containing pig iron-based low-cost and nanocrystalline coatings could substitute zinc coating with its excellent corrosion and wear resistance properties.

Dr. Ivan Cole from RMIT University, Australia highlighted the Inverse design of Corrosion inhibitors on active metals. Dr. Siva Bohm of Imperial College, UK revealed the importance of high-quality graphene in corrosion protection and thermal conductive protection of Automotive parts and batteries.

Dr. Laha demonstrated the combined effect of amorphicity and porosity on the corrosion behavior of Fe-based metallic glass composite coating. Inhibiting corrosion of heat-treated mild steel rebar in chloride-contaminated simulated concrete pore solution using COW manure was presented by delegates. Organic, inorganic, and eco-friendly inhibitors were discussed at length in the conference.

Dr. R. Subasri from ARCI Hyderabad delivered a keynote lecture on Autonomous self-healing corrosion protection coatings. On the day one of the conference, Dr. Debashish Bhattacharjee, Vice President of Technology and New Materials Business, Tata Steel Ltd, inaugurated the



International Conference on Corrosion and Coating (i3C) at CSIR - NML Auditorium, Burmamines, Jamshedpur.

The auspicious event has been graced by Dr. Arvind Sinha, Advisor Management, CSIR-NML, Dr. AN Bhagat, Chairman, IIM Jamshedpur Chapter, Dr. Siddhartha Misra, Chairman of the conference and Dr. Raghuvir Singh, Convener of the conference.

Plenary speaker Dr. Frank Goodwin of International Zinc Association, USA discussed the advances in hot dip metallic coatings to produce lighter and stronger automotive parts without sacrificing manufacturability, durability, and cost. Another plenary speaker Dr. Indranil Chatteraj spoke about hydrogen embrittlement issues and hydrogen enhanced fatigue duplex stainless steels. The idea to mitigate the corrosion problems and challenges during galvanizing and galvannealing, corrosion protection of magnesium, high entropy alloys, and mild steel, were discussed in detail.



## Farmpreneur icon of North East India –Success story out of initiative of NERCRMS, a registered society under the aegis of UNDER THE Ministry of DoNER.

CSIR-IHBT

08<sup>th</sup> December, 2022



In Ukhrul district of Manipur, the agro-climatic conditions are favorable for the cultivation of Apple. In the year 2019, the low chilling varieties of Apple were introduced in the Ukhrul district by North Eastern Region Community Resource Management Society (NERCRMS), NEC, GoI in association with the Institute of Himalayan Bio-resource Technology (CSIR-IHBT), Palampur, Himachal Pradesh. The initiative received an overwhelming response from the farming community and as well as from the various government and non-government agencies.

Under the initiative, Smt. Augustina Awungshi Shimray, a resident of Poi Village, Ukhrul, Manipur, was chosen as the beneficiary for the apple cultivation. She was one of the farmers who received the training at the Institute of Himalayan Bio-resource Technology (CSIR-IHBT), Palampur, Himachal Pradesh. Following the capacity-building support, Smt. Shimray successfully grew apples in her orchard. Her first yield, she grew nearly 160 kg of Apples which she sold at a lucrative price of Rs. 200/- perkg.

Inspired by her success, few more farmers took up apple plantation. For her exemplary efforts,



the Hon'ble Chief Minister of Manipur Shri. N. Biren Singh felicitated her. Later, she also received financial support from the state government to train Apple Cultivation and its post-harvest management.

Smt. Shimray has expressed her sincere gratitude to NERCRMS, NEC, GoI for transforming her life and enabling her to become economically self-sustainable. Today, she has realised a new meaning of Atma Nirbharta and her story is an inspiration to the entire farming community of North East India.



CSIR-NML

07<sup>th</sup> December, 2022

# जंग व कोटिंग पर दो दिवसीय अंतर्राष्ट्रीय सम्मेलन शुरु

**सीएसआईआर-एनएमएल  
ऑडिटोरियम, बर्मामाइंस**

**जमशेदपुर, 7 दिसम्बर (रिपोर्टर) :**

सीएसआईआर-एनएमएल ऑडिटोरियम, बर्मामाइंस, जमशेदपुर में टाटा स्टील लिमिटेड के वाइस प्रेसिडेंट, टेक्नोलॉजी एंड न्यू मैटेरियल्स बिजनेस, डॉ. देवाशीष भट्टाचार्य ने आज दो दिवसीय अंतरराष्ट्रीय सम्मेलन जंग और कोटिंग (आई3सी) का उद्घाटन किया। सम्मेलन का आयोजन भारतीय धातु संस्थान (आईआईएम) जमशेदपुर चैप्टर द्वारा टाटा स्टील लिमिटेड, सीएसआईआर-राष्ट्रीय धातुकर्म प्रयोगशाला (सीएसआईआर-एनएमएल), जमशेदपुर और एनआईटी जमशेदपुर के सहयोग से 7-8 दिसंबर, 2022 को सीएसआईआर-एनएमएल परिसर में किया गया है। सम्मेलन के मुख्य विषय में नवीनतम अत्याधुनिक तकनीकों और संश्लेषण प्रतिरोध वृद्धि के लिए हॉट-डिप, भौतिक, जलीय और गैर-जलीय कोटिंग्स प्रक्रियाओं में हुई प्रगति पर केंद्रित है।

सम्मेलन के उद्घाटन के दौरान, डॉ. अरविंद सिन्हा, मुख्य वैज्ञानिक सीएसआईआर-एनएमएल ने एनएमएल के निदेशक की ओर से स्वागत भाषण दिया। डॉ. ए.एन. सरफेस इंजीनियरिंग रिसर्च ग्रुप, टाटा स्टील के प्रमुख और आईआईएम जमशेदपुर के अध्यक्ष भगत ने आईआईएम जमशेदपुर चैप्टर की विभिन्न गतिविधियों का विवरण दिया। उन्होंने इस तथ्य पर जोर दिया कि आईआईएम का यह विषय देश के सबसे बड़े



और सबसे सक्रिय अध्यायों में से एक है। टाटा स्टील के उत्पाद अनुसंधान प्रमुख और ग्रुप के अध्यक्ष डॉ. सिद्धार्थ मिश्रा ने इस विशेष अंतरराष्ट्रीय सम्मेलन के महत्व के बारे में बात की। बाद में, उन्होंने इस सम्मेलन के मुख्य अतिथि, डॉ. देवाशीष भट्टाचार्य, उपाध्यक्ष, प्रौद्योगिकी और नई सामग्री व्यवसाय, टाटा स्टील लिमिटेड का भी परिचय कराया। अपने संबोधन में मुख्य अतिथि ने हमारे दैनिक जीवन में संश्लेषण और कोटिंग्स के विभिन्न पहलुओं के बारे में बात की। आजकल, कोटिंग के विभिन्न पहलुओं जैसे सौंदर्य, धूल प्रतिरोधकता, स्व-उपचार आदि का भी पता लगाया जा रहा है। उन्होंने इस तथ्य पर भी जोर दिया कि किसी भी इंजीनियरिंग सामग्री, जैसे स्टील के क्षरण को रोकने के लिए कोटिंग निश्चित रूप से एक उपाय है। हालांकि, हमें आधार सामग्री को स्टील से कुछ अन्य सिरैमिक आधारित सामग्री में बदलने के संदर्भ में अन्य समाधानों

पर गौर करना चाहिए जो स्वाभाविक रूप से जंग रोधक हैं। उद्घाटन कार्यक्रम के दौरान सम्मेलन की स्मारिका का विमोचन किया गया। अंत में, डॉ. रघुवीर सिंह, मुख्य वैज्ञानिक और ग्रुप लीडर कोरोजन इंजीनियरिंग, सीएसआईआर-एनएमएल ने इस सम्मेलन में उपस्थित सभी प्रतिभागियों को धन्यवाद दिया।

उद्घाटन सत्र के बाद दो पूर्ण व्याख्यान हुए, जिसकी अध्यक्षता डॉ. सौमित्र तरफदार, पूर्व मुख्य वैज्ञानिक, सीएसआईआर-एनएमएल ने की। पहला व्याख्यान ऑनलाइन मोड में इंटरनेशनल जिंक एसोसिएशन, यूएसए के डॉ. फ्रैंक गुडविन द्वारा दिया गया। उन्होंने पिछले कुछ वर्षों में हॉट-डिप कोटिंग्स में हुई विभिन्न प्रगति के बारे में बात की, जो अभी भी कोटिंग के लिए औद्योगिक रूप से सबसे महत्वपूर्ण तरीकों में से एक है। दूसरा व्याख्यान डॉ. इंदनील चट्टोराज, पूर्व निदेशक सीएसआईआर-एनएमएल द्वारा दिया गया।

उनका विषय धातुओं और मिश्र धातुओं में हाइड्रोजन था। चूंकि आने वाले दिनों में हाइड्रोजन अर्थव्यवस्था सर्वोपरि होगी, इसलिए उन्होंने आधार धातु के साथ हाइड्रोजन की परस्पर क्रिया के कई पहलुओं को छुआ। अपने व्याख्यान के अंत में, डॉ. चट्टोराज को उनकी अनुकरणीय सेवा और संश्लेषण विज्ञान और प्रौद्योगिकी में योगदान के लिए आयोजकों द्वारा सम्मानित किया गया। बाद में, पोस्टर सत्र का उद्घाटन श्री चैतन्य भानु, वाइस प्रेसिडेंट स्टील मैनुफैक्चरिंग, टाटा स्टील द्वारा किया गया और इसके पश्चात तकनीकी सत्र की शुरुआत की गई। इस सम्मेलन के कुछ अन्य उल्लेखनीय वक्ताओं में प्रोफेसर जे मैकडर्मिड (मैकमास्टर यूनिवर्सिटी, कनाडा), डॉ. के डिसूजा (इंटरनेशनल जिंक एसोसिएशन, कनाडा), प्रोफेसर कल्लोल मंडल (आईआईटी कानपुर), डॉ. सिवा बोहम (इंपीरियल कॉलेज लंदन) शामिल हैं। डॉ. कन्न चंद्रशेखरन (आईओसीएल, हरियाणा), प्रोफेसर इवान कोल (आरएमआईटी यूनिवर्सिटी, ऑस्ट्रेलिया), डॉ. कमाची मुदली (वीआईटी भोपाल), डॉ. सुबासरी (एआरसीआई हैदराबाद), प्रोफेसर एन बीरबिलिस (डीकिन यूनिवर्सिटी, ऑस्ट्रेलिया), डॉ. हंस वान-डर-वीजदे (टाटा स्टील, नीदरलैंड), प्रोफेसर सुमंत्र मंडल (आईआईटी खड़गपुर), प्रोफेसर अनुप केशरी (आईआईटी पटना) और प्रोफेसर क्रिस्टोफर टेलर (ओहियो स्टेट यूनिवर्सिटी, यूएसए) आदि शामिल हैं।

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# सीरी के वैज्ञानिक डॉ भाऊसाहब अशोक बोत्रे को मिला राष्ट्रीय पुरस्कार



**अंतरराष्ट्रीय दिव्यांग दिवस पर समारोह में राष्ट्रपति द्रौपदी मुर्मू ने किया पुरस्कृत, दिव्यांगों के लिए विकसित की ई-असिस्ट ट्राइक**

पिलानी (बाबूलाल घोघलिया/ मृदुल पत्रिका)। सीएसआईआर-सीरी के प्रधान वैज्ञानिक डॉ भाऊसाहेब अशोक बोत्रे को दिव्यांग जनों के सशक्तीकरण को लेकर उल्लेखनीय शोध कार्य के लिए राष्ट्रीय पुरस्कार से सम्मानित किया गया है। डॉ बोत्रे को यह पुरस्कार उनके द्वारा विकसित ई असिस्ट ट्राइक के लिए अंतरराष्ट्रीय दिव्यांग दिवस पर नई दिल्ली के विज्ञान भवन में आयोजित भव्य समारोह में

राष्ट्रपति द्रौपदी मुर्मू द्वारा भेंट किया गया। डॉ बोत्रे को यह पुरस्कार वर्ष 2022 में दिव्यांग जनों के सशक्तीकरण के क्षेत्र में सर्वश्रेष्ठ अनुसंधान नवाचार उत्पाद विकास श्रेणी में व्यक्तिगत उत्कृष्टता के लिए प्रदान किया गया है।

इस अवसर पर सामाजिक न्याय एवं अधिकारिता मंत्री डॉ वीरेंद्र कुमार, राज्यमंत्री रामदास आठवले तथा प्रतिभा भौमिक भी उपस्थित थे। राष्ट्रपति ने इस शोध एवं विकास कार्य के लिए डॉ बोत्रे

और टीम सीएसआईआर-सीरी की मुक्त कंठ से सराहना की।

डॉ पी सी पंचारिया निदेशक सीएसआईआर-सीरी एवं सभी सहकर्मियों ने डॉ बोत्रे को इस विशिष्ट उपलब्धि के लिए शुभकामनाएं दी हैं।

**ये हैं ई-असिस्ट ट्राइक की विशेषताएं**

दिव्यांगजन के लिए तैयार ई-असिस्ट ट्राइसाइकिल में 250 वाट, 24 वोल्ट क्षमता वाला उन्नत इलेक्ट्रॉनिक नियंत्रक, व्हील हब बीएलडीसी मोटर, हैंड पैडल, उच्च सटीक ब्रेक सर्किट, सटीक नियंत्रित इलेक्ट्रॉनिक शक्ति और गति शामिल है। इलेक्ट्रॉनिक पावर नियंत्रित मोटर युक्त है और हैंड पैडलिंग उपलब्ध है। अर्थात यह ट्राई साइकिल इलेक्ट्रॉनिक मोटर और मानवीय दोनों रूपों से चलाई जा सकती है। यह सड़कों के अलावा फ्लाईओवर और पहाड़ी क्षेत्रों में भी कार्य करने में सक्षम है। आगे की ओर चलते समय इसकी गति 20 किमी/घंटा और रिवर्स गति 7 किमी/घंटा है।

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