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April - June, 2024

# VIDYUT ANUSANDHAN SAMACHAR

## **CENTRAL POWER RESEARCH INSTITUTE**

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## **CENTRAL POWER RESEARCH INSTITUTE**

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## **ABOUT CPRI**

Central Power Research Institute (CPRI) was established by the Government of India in 1960. It became an Autonomous Institute in the year 1978 under the aegis of the Ministry of Power, Government of India. For the last six decades, CPRI has been rendering dedicated service to the Power Sector.

Over the years, CPRI has developed expertise in generation, transmission, distribution systems and has established world-class facilities for research and testing in the areas of High Voltage, High Power, Short Circuit, Power Capacitors, Power Cables, Solar PV, Smart Metering & AMI, Power System Studies, Energy Studies, Tower Design, Vibration Studies, Seismic Performance, Liquid Dielectrics, Diagnostics, Condition Monitoring, Cybersecurity, Smart Grid Systems, Energy Storage, RLA studies and development of new materials for Power Sector.

## DIRECTOR GENERAL's MESSAGE

It gives me pleasure to place before you the third issue of the Vidyut Anusandan Samachar for the quarter April to June 2024. In the area of R&D, CPRI has made substantial progress is undertaking new collaborative research projects on emerging technologies. CPRI officers continue to make strides in getting patents awarded for their illustrious R&D capabilities. I compliment the concerned officers in this regard. I am pleased to see the Mission on Advanced and High Impact Research (MAHIR) advancing steadily towards its objectives.

It is worth mentioning the contribution of CPRI staff during the 'Shramdaan' activity undertaken as part of the Swachhta Pakhwada – 2024 which was observed at CPRI during May 2024. The activity demonstrated by the staff towards environment cleanliness which is commendable, and I am sure this will continue to imbibe the sense of concern in all of us towards environmental protection.

It was a pleasant moment to have Secretary General, BIMSTEC His Excellency Shri Indra Mani Pandey at CPRI Bengaluru. We had many customers during this period from both India and abroad visiting CPRI to avail services in the areas of testing and consultancy. CPRI also marked the grand celebration of the 133rd birth anniversary of Bharat Ratna Dr. B.R. Ambedkar on 15<sup>th</sup> April 2024. My compliments to all the staff of CPRI for their continual efforts towards achieving aims & objectives of the Institute.

#### **Activities of CPRI**

- Applied Research in Power Systems Engineering.
- Independent Third-Party National Laboratory for Testing & Certification
- Consultancy & Field-Testing Services

Shri. B A Sawale Director General, CPRI



## **RESEARCH HIGHLIGHTS**



Central Power Research Institute (CPRI) continues to play a pivotal role as the nodal agency for coordinating research in the Indian power sector. The continual support of CPRI for Indian academia has fostered an environment for innovations and enabling the development of cutting-edge solutions.

Under the various research schemes, significant strides have been made to cultivate a collaborative research atmosphere. Notably, under the MAHIR scheme, substantial progress has been achieved in finalizing proposals that will soon be presented to the Apex Committee. Additionally, meeting of the technical committees have been convened to review the new proposals under the "R&D schemes of MoP being implemented through CPRI". During this quarter, Prof. Prasad Enjeti, TAMU-USA, CPRI Chair Professor at IISc, Bangaluru, and Prof. Kaushik Basu, IISc Bengaluru visited CPRI on 12<sup>th</sup> June 2024 and had discussion with Director General and the HoDs from various divisions of CPRI. The meeting resulted in exchange of ideas and discussions on future course of research in the Power Sector.

#### **Key Research Highlights**

#### Mission for Advanced and High Impact Research (MAHIR)



The 4<sup>th</sup> meeting of the Technical Scoping Committee of MAHIR was organized on  $11^{th}$  April 2024 through video conferencing

(VC). The meeting was chaired by Chairperson, CEA. During the meeting proposals were finalized for presentation to the Apex Committee of MAHIR.

Further, Secretary (Power), Gol, chaired a meeting on 18<sup>th</sup> June 2024 through video conferencing to review the progress under MAHIR. The proposals under MAHIR, which have been recommended for presentation to the Apex Committee were also reviewed during the meeting.

#### **Academic Collaboration**



CPRI and Maulana Azad National Institute of Technology (MANIT), Bhopal inked a Memorandum of Understanding (MoU) for research and academic collaboration, on 6<sup>th</sup> June, 2024. The MoU signing ceremony was held in CPRI Bhopal campus in the presence of Director General (CPRI), Director (MANIT Bhopal) and senior faculty members / officials from MANIT Bhopal and CPRI.

#### **Industry Collaboration**



CPRI and Madhya Pradesh Industrial Development Corporation Limited (MPIDCL), signed an agreement on 7th June 2024 to establish common test facilities for electrical equipment at Manufacturing Zone, Narmadapuram, Madhya Pradesh.

#### **Project in Focus:**

#### Title: Improvement in composite polymeric insulator characteristics with nano filler additives for outdoor DC applications

With the advancements in polymer technology, the HV insulation industry has undergone rapid strides. Starting from the telegraph pole-based insulation, to wooden, glass and then ceramic insulators, the recent market trend is the use of polymeric based insulators. Silicone rubber became the undisputed choice due to its excellent hydrophobicity transfer and recovery phenomenon even under pollution. Commercially available silicone HV insulators are copiously loaded with high quantities of aluminium tri hydrate or ATH as high as 60 phr. The higher loading of ATH promotes the flame retardancy but at the cost of reduced dielectric and mechanical strength. To further enhance the properties a way out through the deployment of nanofillers was attempted in this project.

Nanofillers are a class of particles whose 1D dimension is <= 100 nm. At nanometric scales these fillers offer large surface areas which can be tailored and modified according to the macroscopic properties needed. When the particle size is about 4 nm or less, the interfacial thickness will be around 2 nm. Implying that the interaction between the fillers and base matrix contributes to another 50 % of property change. This interesting phenomenon is harnessed here in this project.

The project started with the use of popular nanofillers of Alumina and Silica with varying particle dimensions, shapes and phases. Filler surfaces were hydrophobically modified to improve the interfacial interaction with base Silicones. Choice of modifiers included – surfactants, silanes and monomers.



Out of these, the monomer dopamine stood out. Dopamine is a shell fish inspired chemical leading to exceptional bonding strength. In the project this was taken further to provide polymerised coating on nanofiller surfaces that rendered exceptionally strong bond onto silicone matrix. This was characterised by superior corona discharges resistance, and higher elongation up to 1000% and more without

break. But nanofiller alone was insufficient to provide the required flame retardancy. Hence micro-ATH was added in judicious quantities of 35 phr. A combination of micro-ATH and dopamine coated nanofillers are sufficient to withstand the critical tracking and erosion test.

The developed composite when tested not only withstood the IEC 60587 specified test voltage of 4.5 kV AC 6 hours with 0.6 mL/min contaminant flowrate, but rather even the higher

test voltage of 6 kV 6 hours at 0.9 mL/min flowrate. Another achievement noted was the substantially higher dielectric strength up to 32 kV/mm. This higher dielectric strength can reduce the creepage distance requirement of Composite Long Rod (CLR) insulators which at present is an astounding 14 m for 765 kV, 210 kN insulator. The reduced creepage length would imply reduce insulator length, easier to handle and less wind loads.



In conclusion, a superior formulation for HV insulators have been developed in the project. The same was rigorously tested in the laboratory and have been found successful. The same is also available for commercialization. Findings were published in peer reviewed international journal papers and one Indian patent was granted.

> Project Investigator: Smt. Ashitha P.N. Engineering Officer

#### **Patents Granted**

Patent Title: Simulated particle impact Erosion system for Grading Thermal Power Plant tube materials and coatings

#### Patent Number: 539831 Date: 29.05.2024

Inventors: Dr. R. K. Kumar, Dr. V. Saravanan & Shri. M. Janardhana of CPRI and Dr. GSVL Narasimham, IISc, Bengaluru

Patent Title: Scooping Device for Extracting Miniature Samples from Metallic Materials

#### Patent Number: 538213 Date: 16.05.2024

Inventors: Dr. M.V.Rao, Mr. Kishore Kumar & Dr. Shekar Kumar of CPRI and Mr. R.K.Swamy, M/s. Veltech Engineers, Hyderabad

Patent Title: Methodology for Obtaining Load Flow Solution In Weakly Meshed Electric Power Distribution System

#### Patent Number: 533455 Date:17.04.2024

Inventors: Dr. Amit Jain & Mr. James Ranjith Kumar of CPRI

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## **TECHNICAL SPOTLIGHT**

#### **UCA IUG Accreditation**



Substation Automation System laboratory under Smart Grid Research Laboratory (SGRL) has been accredited by UCA International Users Group, USA, for IEC 61850 (Edition 2.1). With this, the laboratory becomes the first and only lab in the country to get Level A (Independent Test lab with certified ISO/ IEC 17025 Quality System) accreditation and can take up testing as per IEC 61850 (Edition 2.1)



#### Director General, CPRI visit to 400 kV D/C Line at M/s. Greenko CPS, Pinnapuram

Director General and team of CPRI officers visited the Project site of upcoming Integrated Renewable Energy Project of M/s. Greenko at Pinnapuram Andhra Pradesh.



First ever 400kV Monopole Gantry Structure in the country after stringing the conductors

CPRI team is proud to be associated with the project for design and approval of 400kV D/C twin moose dual monopole and first ever 400kV monopole gantry structure in the country.



400kV D/C Twin Moose Dual Monopole after stringing the conductors



DG CPRI with Greenko officials

#### Visit of His Excellency Shri Indra Mani Pandey, Secretary General, BIMSTEC

His Excellency Shri Indra Mani Pandey, Secretary General, BIMSTEC visited BIMSTEC Energy Centre (BEC) at CPRI, Bengaluru on 9<sup>th</sup> May 2024.

Shri Ajay Tiwari, Additional Secretary (MoP), Shri A K Rajput, Member-Power Systems, CEA, Shri S P Kumar, Executive Director, SRLDC, Grid India, Bengaluru and other dignitaries were also present during the occasion.



## **OVERSEAS CUSTOMERS**

#### **Testing for overseas customers**

- The Cables and Diagnostic Division, CPRI Bengaluru carried out Fire Resistance and Circuit Integrity tests on 2 Core X 1.5 Sq.mm, Copper Conductor, Silicon Rubber Insulated, Overall Shielded, LSZH Sheathed 300/500 V Cable and 4 Core X 4.0 Sq.mm, Copper Conductor, Silicon Rubber Insulated, Overall Shielded, LSZH Sheathed 300/500 V Cables for M/s. Asharqiyah Cables Company, Saudi Arabia.
- The Switchgear Testing & Development Station, CPRI Bhopal carried out Lightning Impulse Voltage Withstand Test on 20/24 MVA, 33/11kV Power Transformer for M/s. Wolong Electric Yinchuan Co. Pvt. Ltd., China. Sri. Pratap Baral, Electrical Engineer from Nepal Electricity Authority and Mr. Vijay Kumar Choudhary, Authorized representative from M/s. Wolong Electric Yinchuan Co. Pvt. Ltd., China, witnessed the test.
- The Switchgear Testing & Development Station, CPRI, Bhopal carried out ability to withstand the dynamic effects of Short Circuit, Determination of sound level, Full Wave Lightning Impulse Test, Temperature Rise Test on 5 MVA, 33/11kV, 3-Phase, Power Transformer for M/s. LTL Transformers (Pvt.) Ltd, Sri Lanka.



- The Switchgear Testing & Development Station, CPRI, Bhopal carried out IP 67 and Impulse Withstand Voltage tests on 380kV, Stainless Steel, Link Box for M/s. Advanced Technical Solutions Co. Riyadh
- The Switchgear Testing & Development Station, CPRI, Bhopal carried out Ability to withstand the dynamic effects of short circuit test, Lightning Impulse Voltage Withstand test, Temperature Rise test on 1.5 MVA, 11/0.415kV, Distribution Transformer for M/s. Basic Power Engineering Ltd., Bangladesh.

#### Visit of overseas customers

The team of M/s. Mitsubishi Electric Corporation (MELCO), Japan and M/s. L&T Technology Services (LTTS), Bengaluru visited CPRI Bengaluru on 27<sup>th</sup> June 2024. BD&CBD has coordinated the laboratory visit to High Power Lab (HPL) & Electrical Appliance Testing Division to understand the overall testing capabilities and infrastructure at CPRI, Bengaluru. A meeting was arranged at High Power Laboratory with MELCO and L&T team along with senior officers from HPL. The meeting was chaired by Shri S. Sudhakar Reddy, Additional Director and HoD, HPL.





Mr. Sevigny Richard from Canada, visited UHVRL, CPRI Hyderabad during 22 -26 April 2024 to witness tests on 765 kV, 4000 A, current transformer of M/s. Hitachi Energy India Ltd., Vadodara  $\checkmark$ 



April - June, 2024

Mr. Kiryukhin Pavel, Mr. Lavrov Evgenii and Mr. Mikoyan Ivan from Russia, visited UHVRL, CPRI Hyderabad on 16<sup>th</sup> May 2024 regarding testing of 145 kV & 245 kV, RIP Bushings of M/s. Massa Izolyator Mehru Pvt. Ltd., Haryana





Mr. Ivan Aleksic and Mr. Nenad Radovanovic from M/s. MINEL General Electric, Serbia witnessed vibration and shock test on High Reach Pantograph for M/s. Minel India Pvt Ltd, Uttar Pradesh. The test was carried out by Earthquake Engineering & Vibration Research CPRI Centre, Bengaluru.

Mr. Toshiyuki Suzuki – President- T&M Global and Mr. Shinnosuke Inoue - Vice president - Customer Communication Division from M/s. Yokogawa Test & Measurement Corporation, Japan along with Mr. Krishna BC, Business Unit Head & Mr. Somnath (Sales) visited to Energy Efficiency & Renewable Energy Division (ERED) CPRI to discuss possible research collaboration and testing automation requirements in E-mobility and solar inverters. Mr. Paulo Gois, PGI – Consultant, M/s. Inspections & Representations Ltd., Brazil & Mr. Cesario Da Silva Guerci, Tecnico Inspecao Material, M/s. CEMIG, Brazil visited Short Circuit Laboratory, CPRI Bengaluru. During the visit, the team witnessed Short-circuit withstand (Dynamic & Thermal) tests as per Brazilian Standards ABNT NBR 5356-5 2015 and NBR 5440:2014 on 02 nos. of 37.5 kVA 7969/240V single phase distribution transformer and 02 nos. of 150kVA 13800/220V, three phase distribution transformers for M/s. Shirdi Sai Electricals Ltd., Kadapa.



Mr. Cusilakhe Mamama (Head of Production), M/s. EEE Swaziland visited Switchgear Testing & Development Station, CPRI, Bhopal for witnessing lightning impulse voltage withstand test on 20000/25000kVA, 132/11kV, three-phase, power transformer for M/s. Technical Associates Ltd., Uttarakhand.





Mr. Tharindu Bopitiya and Mr. Nimesh Madusanka from M/s. LTL Transformers (Pvt) Ltd., Sri Lanka visited Switchgear Testing & Development Station, CPRI, Bhopal for witnessing full wave lightning impulse test on 5 MVA, 33/11kV power transformer.



## **LEGACY DESK**

#### **Technical Article**

#### **Power System Automation and Smart Cities**

The power system automation at substation level based on DNP/IEC 61850 protocols became quite popular by the end of twentieth century. The non-availability of better communication system curtailed its expansion below the substation to the level of consumer. With advent of several solid state devices for control of power systems and improvement in communication technologies like radio, mobile and internet, opened gates for expansion of automation.

The economic decision to invite foreign direct investments(FDI) in Indian power systems forced restructuring of the setup by unbundling the operations and vesting the ownership with separate generation, transmission & distribution companies. The associated transmission & commercial losses rendered many of these distribution companies economically unviable to carry out their operations. The decision of Indian government to support the distribution companies by schemes such as APDRP, R- APDRP (now renamed as IPDS), RDSS not only brought stability but also enforced automation even in small cities which were distributing more than a million units of energy annually.

Global mandate is to reduce usage of fossil fuels has forced harnessing the clean energy from wind and solar. Even the consumer who has a very limited generation has been allowed to pump into the grid. These new changes due to restructuring & de-regulation in the power system, usage of IT and communication for the economic benefit has been initiated across the whole length of power sector. Electrical power generation, transmission and distribution brought in new challenges like interoperability, resources interconnection, synchronization, information interchange, communications, security among other things. This complexity and availability of inexpensive computers & communication has paved way to optimize resources in making the grid smarter economically.



Realising the nature of the centrally distributed process employed in power automation using SCADA architecture, automation in other service industries like water distribution, health services, transport sector, sanitation etc., have been initiated. The power system automation platform is being shared for common data acquisition, communications & computing for these sectors. Today we have more than 100 cities in India which are poised to become 'Smart Cities' by employing these technologies.

CPRI started rendering their services in implementing the APDRP and R-APDRP (IPDS) schemes initially. Later when automation was made mandatory, the state utilities looked upon at our Institute to take up this new responsibility of providing PMC for Automation. Protocol Laboratory was initiated to popularize the need for protocol & testing of meters which are employed in substation automation. With the support of USTDA, US providing consultancy in preparing technical specifications, the Smart Grid Research Laboratory (SGRL) has been established to demonstrate and disseminate this technology including testing requirements of automation components like RTUs / FRTUs.



Over the years several automation consultancy works were carried out for Indian electrical utilities. Some of the major PMC works carried out include, the PMC works undertaken for KPTCL wherein all the substations of 33kV and above were integrated for monitoring & control with the Master Control Centre at Bengaluru and backup centre at Nelamangala, a town close by. One of the biggest project management consultancy work for distribution automation of the urban area of Bengaluru city, BESCOM-DAS along with KEMA-USA was initiated in 2008 and it got fully implemented & started functioning by 2018.

This project came under the Japanese Economic Assistance program initiated by the state government. Recent newspaper

reports, by the utility had claimed that the power outages have been reduced by over 50% after this automation initiative, which stands testimony to the hard work of the PMC team. The SGRL team is rendering their expertise as a project management consultant in implementation of automation works at Karnataka, Pondicherry, Andhra Pradesh, Telangana and Uttar Pradesh.



About the Author Ravikumar K Additional Director (Retd.)

## **CONFERENCE/ SEMINAR/ WORKSHOP/ TRAINING**

The 12<sup>th</sup> International Conference on Power Cables- CABLETECH 2024 was organized by Cables & Diagnostics Division during 13 -14 June 2024 at CPRI, Bengaluru. More than 200 delegates from various utilities, manufacturers & academic Institutions participated in the international conference. Foreign delegates from Germany, UK, Italy, Bangladesh, Austria and Middle East countries participated in the conference.

Shri B.A. Sawale, Director General, CPRI inaugurated the conference and delivered the presidential address. The conference featured seven technical sessions covering topics including HVDC cables, materials & design, measurement techniques & applications, cryogenics & super conducting cables, installation & maintenance practices, cable accessories and cable diagnostics. About 32 technical papers from Indian and overseas participants were presented, showcasing diverse fields of power cable technology.

An exhibition was also organized as part of the conference, providing platform for manufacturers and suppliers to showcase their products.



Business Development & Capacity Building Division conducted five-day Residential Training Programme for engineers of NLCIL, Neyveli Tamil Nadu during 10<sup>th</sup> to 14<sup>th</sup> June 2024. Ten officers participated in the training programme.



Energy Efficiency & Renewable Energy Division, CPRI Bengaluru conducted 2 Days' onsite training program on "Solar Inverters and Applicable Standards" for M/s. Havells India Limited, Center for Research and Innovation, Bengaluru on 30<sup>th</sup> and 31<sup>st</sup> May 2024. The training programme was attended by executives from M/s. Havells India Limited.



## **EXHIBITIONS**

#### ELAsia 2024 Exhibition:

Central Power Research Institute participated in ELAsia Exhibition organised by M/s. Triune Exhibitors, Bengaluru during 24<sup>th</sup> to 26<sup>th</sup> May 2024 at Bengaluru International Exhibition Centre. Shri. R. Sudhir Kumar, Additional Director, CPRI, Bengaluru was the Chief Guest and inaugurated the Exhibition. CPRI facilities and capabilities were showcased during the Exhibition. The visitors from power utilities, academics, electrical equipment manufacturers, overseas delegates are visited the stall and enguired about CPRI test facilities and research activities.



Exhibition Inaugurated by Shri. R. Sudhir Kumar Additional Director, CPRI



Visitors at CPRI stall

#### Exhibition @ CABLETECH 2024:

Cables & Diagnostic Division (CDD) has organised a 12<sup>th</sup> International Conference on Power Cables CABLETECH 2024 during 13-14 June 2024 at CPRI, Bengaluru. Business Development & Capacity Building Division has placed a stall in the exhibition organised by CDD. Shri. B.A. Sawale, Director General, CPRI inaugurated the Exhibition on 13, June 2024. CPRI's stall at the exhibition highlighted test facilities and other activities. The conference delegates from various organizations, utilities and manufacturers visited stall and enquired about CPRI test facilities.



DG with Officials at CPRI stall

## **EVENTS**

#### Annual Customer Meet 2024, CPRI Noida

CPRI RTL, Noida organized Annual Customer Meet 2024 at Scope Complex, New Delhi on 28<sup>th</sup> June 2024. Total of 45 senior representatives from industries and utilities attended the meeting and had fruitful discussion with CPRI team. The function was inaugurated by Shri Ramjeet Singh, Additional Director/ Group Head, RTL Noida.



Shri Ramjeet Singh in his keynote address emphasized the importance of customers' meet and the cordial relationship between CPRI and customers. Shri M.K. Jaiswal, Joint Director/ Unit Head gave a brief about the three decades of journey of RTL, Muradnagar and Noida. He informed customers about the recent developments and test facilities added in Noida laboratory.



Lighting the lamp by chief guest & DG



Celebration @ UHVRL, Hyderabad, CPRI



The most valued customer award was presented to the following customers for the year 2023-24:

- 1. M/s Dakshinachal Vidyut Vitaran Nigam Ltd, Agra
- 2. M/s Dakshin Haryana Bidyut Vitaran Nigam Ltd, Hissar
- 3. M/s HPL Electric Pvt. Ltd, Gurugram

#### Ambedkar Jayanthi

133rd Birth Anniversary of Bharat Ratna Dr. B.R. Ambedkar was celebrated by Central Power Research Institute, on 15<sup>th</sup> April 2024. The Chief Guest for the function was Shri. H. N. Nagamohan Das, Hon'ble Justice (Retd.), High Court of Karnataka. The function was inaugurated by lighting the lamp and offering floral tributes to Dr. Ambedkar's portrait by the Chief Guest. Shri B A Sawale, Director General, CPRI presided over the function.

Dr. B. R. Ambedkar Merit Awards were presented to the children of employees and contractual staff of the Institute who have passed  $10^{th} / 12^{th}$  standard examinations for the academic years 2021-22 & 2022-23.



Chief Guest, DG and Sr. officials on Dias



Dr. B R Ambedkar Jayanthi celebration in Kannada newspaper

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#### Swachhta Pakhwada - 2024



Swachhta Pakhwada- 2024 was observed by CPRI during 16<sup>th</sup> to 31st May 2024. During this programme, activities like upkeep of CPRI campus, staff colony, public places like bus shelters and Anganwadi, tree plantation, awareness lectures, display of awareness posters, installation of colour coded segregation bins, fogging, disinfection, pest control etc. were carried out.





UHVRL, Hyderabad



STDS, Bhopal



Swachhta Pledge administered to Staff by the Director General, CPRI, Bengaluru



TRC, Nagpur



RTL, Noida



RTI, Kolkata

#### April - June, 2024

## Shramdaan (Group cleaning activity) as part of Swachhta Pakhwada 2024

Shramdaan was organized in CPRI campus at Head Quarters, as well as Out Station Units of CPRI, viz. Bhopal, Hyderabad, Noida, Nagpur, Kolkata & Guwahati on 20<sup>th</sup> May 2024, in which many officials participated by putting their hands in cleaning activities, sweeping roads, etc. Swachhta Awareness caps and T-Shirts with logos printed on them were presented to all the participants.





Director General, CPRI & Officials participating In Shramdaan at Head Quarters, CPRI, Bengaluru

## Officials participating in Shramdaan at outstations units of CPRI



TRC, Nagpur



RTL, Guwahati



UHVRL, Hyderabad



STDS, BHOPAL



RTL, Noida

### Go Green Initiative — Tree plantation drive at CPRI-HQ, B'lore & other Units

**Green Initiative - Mass Tree plantation** was organized on 27<sup>th</sup> May 2024, wherein several officials of CPRI at Head Quarters, as well as the Outstation Units, viz. Bhopal, Hyderabad, Noida, Nagpur, Kolkata and Guwahati participated in the green cause.





CRTL, Bengaluru







UHVRL, Hyderabad







RTL, Noida









RTL Kolkata & Guwahati



TRC, Nagpur





#### **Go Green Initiative**





STDS, Bhopal

#### Awareness on Swacchta at Anganwadi's / Schools:

CPRI, RTL, Noida officials visited the Government Primary School at Khora Village near Noida, on 16th May 2024, in view of creating awareness with regard to importance of Swacchta. The team explained the components of waste segregation at source, colour coded dust bins / waste containers, their effect on environment, etc. to the young children as well as the teaching and housekeeping staff, with demonstration aids.



CPRI, Bengaluru adopted a Government run Anganawadi Centre at Ashwath Nagar, Bengaluru, with the permission of the local authorities. Upkeep / maintenance in terms of painting of cartoons on the walls, providing new painting to interior and external surfaces.





#### Awareness on Swacchta at Anganwadi's / Schools:

CPRI, STDS, Bhopal Officials visited the Anganawadi Centre no. 532, Bihari Colony, Govindapura, Bhopal, on 16<sup>th</sup> May 2024. To raise awareness of the significance of Swacchta, the caretaker staff and young children were given explanations on the elements of waste segregation at the source, color-coded dust bins and trash receptacles, their impact on the environment, etc.

In an effort to raise awareness of the value of Swacchta, Officials from CPRI, TRC, Nagpur, visited a nearby Anganwadi Kendra on May 28, 2024. Using informational posters and other tools, they discussed with the young children the elements of waste segregation at the source, color-coded dust bins and waste receptacles, their impact on the environment, etc.



#### **International Yoga Day**

CPRI Celebrated the 10<sup>th</sup> International Day of Yoga (IDY) on 21st June 2024, by organising a "Yoga Camp" at all its Units. The employees of the Institute actively participated in the yoga camp between 7.30 to 8.30 A.M. at CPRI, Bengaluru and its units and practiced various ASANAS of yoga and Surya Namaskara. During the course of "Yoga Camp" yoga demonstration was given by the yoga experts on various yoga postures and explained the correct way of doing ASANAS.

A guest lecture on **"The Art of Mind Management: Self Knowledge for Increasing Happiness, Peacefulness, Health and Success"** befitting to the occasion was organised at CPRI Bengaluru and the other units of CPRI were connected on Hybrid mode between 4.30 P.M. to 5.30 P.M.







STDS, Bhopal





UHVRL,Hyderabad

RTL, Noida

#### Kavi Sammelan

Under the aegis of TOLIC, Kavi Sammelan was organized for all the member offices on 19<sup>th</sup> June 2024 at CCAR Sabha Bhavan under the Chairmanship of the Director General, CPRI. The program was attended by officers/employees from thirty different organizations.

Member Secretary Shri Sushil Kumar Goyal presented a memento of Indian Postage Stamp to Director General. Participants presented poems and the prizes were awarded to the best presenters. Shri Ramjit Singh, Additional Director participated in the programme and was awarded Protsahan Puraskar for his poem. Additional Director presented mementos to all the participants on behalf of the Institute.



Participants of Kavi Sammelan with Director General, CPRI

## ACCOLADES / HONOURS / AWARDS

#### **Kantasth 2.0 Translation Competition**

Shri Radhakrishnan, Administrative Officer and Smt. Vidya Raj, Junior Hindi Translator, STDS, Bhopal have been selected as winners in the Kantasth 2.0 Translation Competition organized by the Department of Official Language, Ministry of Home Affairs, New Delhi during April 2024.

