



ANNUAL REPORT 2022-23

**CENTRAL PULP & PAPER
RESEARCH INSTITUTE**



BSCIC

Certificate

QUALITY MANAGEMENT SYSTEM

This is to certify that:

CENTRAL PULP AND PAPER RESEARCH INSTITUTE, SAHARANPUR

PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR – 247 001
UTTAR PRADESH, INDIA

Hereby granted the Certificate Number: **BN22000/20795**

Subsequent to the Assessment of the organization, it has been found to be operating a Quality Management System which complies with the requirements of

ISO 9001:2015

For the following scope:

Training, Research and Development, Technical and Consultancy Services to
Pulp, Paper and Allied Industries and other Stakeholders at
National and International Level

IAF Scope: 34

For
BSCIC CERTIFICATIONS PVT.LTD.

Originally Registered: 28-Feb-2023 1st Surveillance Due on: 27-Feb-2024
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Sanjay Seth
Managing Director

(In case if Surveillance Audit is not allowed to be conducted; this Certificate shall be suspended/Withdrawn).

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Version No. 1



Page 1 of 1



**National Accreditation Board for
Testing and Calibration Laboratories**

CERTIFICATE OF ACCREDITATION

PAPER TESTING LABORATORY AND ENVIRONMENT MANAGEMENT DIVISION, CENTRAL PULP AND PAPER RESEARCH INSTITUTE

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR, UTTAR PRADESH, INDIA

in the field of

TESTING

Certificate Number: **TC-8658**

Issue Date: **19/09/2022**

Valid Until:

18/09/2024

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: **CENTRAL PULP AND PAPER RESEARCH INSTITUTE**

Signed for and on behalf of NABL



N. Venkateswaran
N. Venkateswaran
Chief Executive Officer



ANNUAL REPORT 2022-23



Central Pulp & Paper Research Institute

An Autonomous Organisation Registered under Societies Act under the Administrative Control of Ministry of Commerce & Industry, Department for Promotion of Industry and Internal Trade, Government of India.



CONTENTS

From the Director's Desk	1
Management	4
Major Achievements during 2022-23	8
R & D Activities	18
Projects Sponsored by Pulp, Paper and Allied Industries	32
Technical and Consultancy Services	40
Meetings Organized / Attended	53
Celebration of National Days and other Important Days	59
Workshop/Training Program Organized	63
Participation in Seminar, Workshop and Training Program	65
Papers Presented and Lecture Delivered	70
Representation in External Committees	74
Publications	76
Reports	78
Visits to Paper Mills and other Organizations	80
M.Sc. (Cellulose and Paper Technology)	84
Right to Information	86
Financial Report	87
Staff List	109

From The Director's Desk

It is my great pleasure to present the Annual Report of Central Pulp and Paper Research Institute (CPPRI) for the financial year 2022-2023. This Report serves as a comprehensive overview of our Institute's achievements, milestone and contributions in the field of pulp and paper during 2022-23.

I would like to highlight some of the key accomplishments and initiatives:

In order to maintain quality and streamlining the function, CPPRI is bagged ISO 9001:2015 certification. Environmental Management Division and Paper Testing Laboratory of CPPRI successfully completed NABL assessment for renewal of NABL accreditation.

Our scientists have continued to make significant contributions to the industry through cutting edge research in various areas of pulp making including environmental management and chemical recovery pulp and paper research. Their work has led to the development of environmentally friendly processes and enhanced resource utilization. Some of the works are fabrication of Pilot scale Ozone Treatment System, Production of Dissolving grade Pulp from Whole Jute and one Patent Disclosure Note (PDN) is also filed namely "Sequential Pilot-Scale Remediation of Paper Mill Effluent by Fly Ash and Microbial Consortia and Preparation Method Thereof".

CPPRI have strengthened collaborations with industry stakeholders, government bodies and research institutions. These partnerships have facilitated knowledge exchange and the implementation of best practices across the sector. During the year 2022-2023, 7 MoUs were signed with different research and academic organizations.

CPPRI remains committed to promoting sustainability in the pulp and paper industry. CPPRI has initiated projects focused on reducing environment impact, optimizing energy consumption and exploring alternative raw materials. Some of the steps taken by CPPRI in this area are Setting Up of Waste Paper Recycling Promotion Centre and Bio-pulping of lignocellulosic Material to Reduce Chemical and Energy Demand in Various Pulping Processes.

In line with CPPRI's commitment to disseminate knowledge/ skills development seminars and awareness programs for stakeholders on sustainable practices in the pulp and paper industry were conducted during the year 2022-2023, 3 training programmes were organized in different subject areas and more than 100 participants from various pulp and paper mills, R&D and academic institution attended these training programmes.



CPPRI is striving hard to modernize its infrastructure including state of the art laboratories and research facilities to support cutting edge research and development projects. A project “Setting Up of a Pulp and Paper Mill Based Bio-Refinery Laboratory” is also one of such step taken by CPPRI in this area.

CPPRI successfully provided assistance to Central Pollution Control Board (CPCB) as third party in monitoring the environmental status of over 126 grossly polluting industries (GPI) located in Ganga River basin and Yamuna River basin located in the states of Uttar Pradesh, Uttarakhand and Haryana.

Dedicated efforts made by the Institute in rendering technical, testing and consultancy services to various agencies has resulted in Internal Revenue Generation (IRG) of Rs. 352.78 Lacs during the period 2022-23.

With an objective to maintain corruption free work culture, CPPRI is complying the directives of RTI Act and Central Vigilance Commission (CVC). The Hindi Cell of CPPRI continued its efforts to increase use of Hindi in official work. CPPRI observed various important days during the year like Independence Day, Republic Day, World Environment Day and Vigilance Awareness Week, Swachhata Diwas etc. by way of conducting meetings and functions for creating awareness among the staff and their families on the related issues.

The institute would also like to place on record the guidance provided by Shri Anurag Jain, IAS, Secretary DPIIT, Sh. Anil Agarwal, IPS, Additional Secretary and Shri Sanjiv, IRS, Joint Secretary (DPIIT), Ministry of Commerce & Industry. The valuable guidance and support extended by the Hon'ble Chairman and Members of Development Council for Pulp, Paper and Allied Industries (DCPPAI), President & members of Council of Association (CoA) of CPPRI and Research Advisory Committee (RAC) of CPPRI is also sincerely acknowledged. CPPRI also thank Indian Paper Manufacturers Association (IPMA), Indian Newsprint Manufacturers Association (INMA), Indian Agro and Recycled Paper Mills Association (IARPMA) and Indian Recycled Paper Mills Association (IRPMA) as well as all our valued clients from pulp, paper and allied industries for their continued support in various activities and Projects being executed by CPPRI.

I also thank all the members of Hindi Raj Bhasha Prakosth for the publication of ‘Kargad Bharti’ which is first ever Hindi language magazine dedicated to research and development in the area of pulp and paper technology.

I would like to express my sincere gratitude to our dedicated team, whose hard work and dedication have been instrumental in achieving these milestones. I would also like to extend my appreciation to

our partners, stakeholders and funding agencies for their continued support and collaboration. As we move forward into the next financial year, CPPRI remains committed to its vision of being a premier R&D Institute in pulp and paper research innovation and sustainability. We will continue to explore new horizons to innovate relentlessly and contribute to a greener more sustainable future for the pulp and paper industry. I hope this report will help to gain a deeper understanding of our accomplishments and our vision for the better future of Indian Paper Industry.

Sincerely

A handwritten signature in blue ink, belonging to Dr. M. K. Gupta, is positioned above his name and title.

Dr. M. K. Gupta
Director

MANAGEMENT

PREAMBLE

Central Pulp and Paper Research Institute is an Autonomous Organization, registered under the Societies Registration Act. The affairs of the institute and its functionalities are executed as per a duly approved Memorandum of Association (MoA), as amended with due procedure from time to time. As per the Section 6 of the MoA of CPPRI, the affairs of the institute are entrusted as required under Section 2 of the Societies Registration Act 1860 to a governing body, now referred to as the Council of Association (CoA of CPPRI).

COUNCIL OF ASSOCIATION (CoA)

The Council of Association (CoA) of Central Pulp and Paper Research Institute (CPPRI) is the supreme body consisting of members from Ministry of Commerce and Industry, Department of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), Indian Council of Forestry Research and Education (ICFRE), Indian Institute of Technology (IIT), Roorkee, Indian Paper Manufacturers Association (IPMA), Indian Newsprint Manufacturers Association (INMA), Indian Agro and Recycled Paper Mills Association (IARPMA), Indian Recycled Paper Mills Association (IRPMA) and Indian Pulp and Paper Technical Association (IPPTA) etc. The President of Council of Association of CPPRI is appointed by Government of India. Shri Anurag Jain, IAS, Secretary, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India is the present Chair of the Council.

Shri Sanjiv, IRS, Joint Secretary, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India steers the affairs of the Institute as the Chair of the Research Advisory Committee. The composition of the present council is placed below:

MEMBERS OF COUNCIL OF ASSOCIATION OF CPPRI

1.	Secretary Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry, Government of India
2.	Joint Secretary Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry, Government of India

3.	Director /Deputy Secretary (IF Wing) Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry, Government of India
4.	Chairman Development Council for Pulp, Paper and Allied Industries, Government of India
5.	Representative of Department of Science and Technology (DST) Ministry of Science and Technology, Government of India
6.	Representative of Council of Scientific and Industrial Research (CSIR) Council of Scientific and Industrial Research(CSIR), New Delhi
7.	Representative of IIT Roorkee (Saharanpur Campus) Department of Paper Technology, IIT Roorkee (Saharanpur Campus), Saharanpur
8.	Representative of Indian Council of Forestry (ICFRE) Indian Council of Forestry Research and Education, Dehradun, Uttarakhand
9.	Representative of Indian Paper Manufacturers Association(IPMA) Indian Paper Manufactures Association (IPMA), New Delhi
10.	Representative of Indian Newsprint Manufacturers Association Indian Newsprint Manufacturer's Association (INMA), New Delhi
11.	Representative of Indian Agro and Recycled Paper Mills Association (IARPMA) Indian Agro and Recycled Paper Mills Association (IARPMA), New Delhi
12.	Representative of Indian Recycled Paper Mills Association(IRPMA) Indian Recycled Paper Mills Association (IRPMA),Delhi
13.	Representative of Indian Pulp and Paper Technical Association(IPPTA) Saharanpur
14.	Representative of Paper Machinery Manufacturers Wires & Fabriks (S.A.) Limited, Kolkata
15.	Director / Director In charge Central Pulp and Paper Research Institute, Saharanpur

Member Secretary

RESEARCH ADVISORY COMMITTEE (RAC)

The Research Advisory Committee (RAC) of Central Pulp and Paper Research Institute (CPPRI) comprises of prominent scientists and technologists and also representatives from Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, Department of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), Indian Council of Forestry Research and Education (ICFRE), Indian Institute of

Technology (IIT), Roorkee etc. The RAC monitors the progress of various projects carried out by the institute under Project Based Support of DPIIT (Formerly Five-Year plan Projects). Shri Sanjiv, IRS, Joint Secretary Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India is the Chairman of RAC at present. The present composition of the RAC is placed below:-

MEMBERS OF RESEARCH ADVISORY COMMITTEE OF CPPRI

1.	Additional Secretary/Joint Secretary(Incharge Paper), Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry, Government of India
2.	Director /Deputy Secretary IF Wing (DPIIT) Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry, Government of India
3.	Director/Senior Development Officer /Deputy Secretary(Paper), Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry, Government of India
4.	Representative of Department of Science and Technology Department of Science and Technology, New Delhi
5.	Head Cellulose and Paper Branch, Forest Research Institute, ICFRE, Dehradun
6.	Head Department of Paper Technology(DPT), IIT-Roorkee (Saharanpur Campus), Saharanpur
7.	Member Secretary/ Representative Central Pollution Control Board, Delhi
8.	Centre Head CSIR-National Environmental Engineering Research Institute (NEERI), New Delhi
9.	Director/Representative National Institute of Hydrology, Roorkee
10.	Head/Representative CRDT, IIT(Delhi), New Delhi
11.	President or Representative Indian Paper Manufacturers Association (IPMA), New Delhi
12.	President or Representative Indian Agro and Recycled Paper Mills Association (IARPMA), New Delhi

13.	President or Representative Indian Recycled Paper Mills Association (IRPMA), Delhi	
14.	President or Representative Indian Newsprint Manufacturers Association (INMA), New Delhi	
15.	President or Representative Indian Pulp and Paper Technical Association (IPPTA), Saharanpur	
16.	Director/Director In charge Central Pulp and Paper Research Institute, Saharanpur	Member Secretary

STAFF

As on 31st March 2023, CPPRI's core team consisted of 14 Scientists, 06 Technical Staff and 2 Administrative and Finance Staff including Director.

Team CPPRI is committed for providing quality services, support and assistance to Pulp, Paper and Allied Industries. The scientific staff is highly qualified and has vast experience in various areas of paper making such as Raw Material Preparation, Pulping and Bleaching, Stock Preparation and Paper Making, Paper Testing, Chemical Recovery, Energy Conservation, Environmental Management, Biotechnology, Product Development, Quality Control, Policy Matters etc. The list of permanent staff along with qualifications is annexed with this report.

MAJOR ACHIEVEMENTS DURING 2022-2023

Implementation of ISO 9001:2015 in CPPRI

CPPRI bagged ISO 9001:2015 certificate for providing training, research and development, technical and consultancy services to pulp, paper and allied industries and other stakeholders at national and international level. The certificate has been awarded by BSCIC Certifications Private Limited, Faridabad after the assessment of CPPRI during February 16-17, 2023, and after being found to be operating a Quality Management System which complies with the requirements of ISO 9001:2015. This ISO certification process was coordinated by Dr. M. K. Gupta, Chairman MRC, Dr. A. K. Dixit, Quality Manager and Sh. Kumar Anupam, Deputy Quality Manager.

Renewal of CPPRI accreditation by National Accreditation Board for Testing and Calibration Laboratories (NABL)

- Paper Testing Laboratory successfully completed NABL assessment for renewal of accreditation in accordance with ISO/IEC 17025:2017 in the groups of paper and pulp and paper & paper products for the parameters of pH, Grammage, Cobb value, Moisture, Brightness, Opacity, Wax Pic and Ash content.
- Environment Management Division successfully completed NABL assessment for renewal of accreditation in accordance with ISO/IEC 17025:2017 in the groups of Pollution and Environment and Atmospheric Pollution of chemical discipline for Water Pollution Parameters (pH, TSS, TDS, COD, BOD, Color, Na, K, Ca, Mg, Oil & Grease and Hardness), Ambient Air Pollution Parameters (PM₁₀, PM_{2.5}, SO₂ & NO₂) and Stack Emissions Pollution Parameters (SPM, SO₂, NO_x, O₂, CO₂, CO and H₂S).



NABL Audit of EM Div Under Progress

As per 2 years Proficiency Test (PT) Plan submitted to NABL, EM Division successfully participated in PT exercise for following parameters and achieved satisfactory Z score:

- PM 10 and PM 2.5 in Ambient Air (Qualitative and Quantitative)
- Particulate Matter (PM) in Stack Emissions (Qualitative and Quantitative)
- pH, TSS, TDS, COD, BOD, Oil and Grease and Color in waste water samples.



Team EMD participating in PT Exercise for Ambient Air and Stack at Mill site

Environmental Inspection of Grossly Polluting Industries (GPI)

Assistance provided to Central Pollution Control Board (CPCB) as third party in monitoring the environmental status of over 126 Grossly Polluting Industries (GPI) located in Ganga River Basin and in Yamuna River Basin located in the states of Uttar Pradesh, Uttarakhand and Haryana.

Fabrication/ Procurement of Pilot Scale Ozone Treatment System

The ozone bleaching technology is the one of the most environment friendly green bleaching technology. The concept of Total Chlorine Free (TCF) bleaching to full scale brightness is possible after introduction of Ozone Bleaching Technology. In order to develop the facility of ozone bleaching technology, a project on "Demonstration of Ozone Treatment Technology of Indigenous Raw Material Pulp at Pilot Plant Scale", was funded by RSC-DCPPAI in 2021. The project had an objective to create facility for ozone treatment to pulp samples (2-5 kg at a time).

After selection of vendor, the fabrication work of ozone reactor was completed. The pre-trials of ozone treatment on pulp samples were carried out at fabrication site. After successful pre-trials the transportation and installation work was completed at CPPRI PCPB Laboratory. Further to this for better efficacy, high capacity ozone generator (150g/hour) was also procured which is based on oxygen plant instead of oxygen cylinder. In this way overall integrated facility of ozone generator, Pressure Swing Adsorption (PSA) based oxygen concentrator and ozone reactor was installed.

The experiments on the ozone bleaching of pulp samples were carried out after integration of all three units viz oxygen concentrator, ozone generator and ozone reactor. The results of ozone bleaching have indicated very efficient performance of ozone treatment to pulp in pilot scale ozone reactor.



Integrated Pulp Ozone treatment System

Production of Dissolving Grade Pulp from Whole Jute

Dissolving grade pulp is the highest purity alpha cellulose pulp which is the raw material of various industries viz textile, food and pharma. The high purity dissolving pulp is required in textile industry for preparation of viscose rayon. Dissolving grade pulp can be prepared with any cellulosic raw material which has potential in terms of high holocellulose content and low ash/silica.

Whole jute plant consists of long fiber and good source of cellulose. National Jute Board is the apex body which takes care about cultivation and utilization of jute plant. Keeping in view of the fibre property National Jute Board sponsored a project on utilization of whole jute for production of dissolving grade pulp, for laboratory scale followed by production of viscose rayon at ABSTCL Mumbai. The laboratory scale trials for both dissolving grade pulp preparation and viscose formation were successfully completed. This has led NJB to sponsor a project on Production of

“Pilot Scale Whole Jute Dissolving Grade Pulp for Viscose Fibre” jointly to CPPRI, Saharanpur and ABSTCL, Mumbai. The pilot scale trials for preparation of dissolving grade pulp required arrangement of facilities of cutting of whole jute, prehydrolysis, pulping and bleaching.

The CPPRI pilot plant has facility for pulping and bleaching. The whole jute was procured from Jute Corporation of India (JCI), Kolkata. The arrangements of cutting of whole jute and procurement of washer and repairing of steam boiler were the major jobs carried out to perform the pilot plant trials.

Preparation of whole Jute

The collected jute was chopped through disc chipper of CPPRI pilot plant. The chipping was carried out few weeks before the commencement of pilot plant trials in March 2023. The knives of chipper were got sharpened and temporary modifications in the design of the existing chipper were made.



Chipping of whole jute in Disc Chipper at CPPRI Pilot Plant



Whole jute prepared for Pilot Pulping Trial

PDN filed

Rachana Singh, Surbhi Sinha, Kavya Bisaria, A. K. Dixit, Kumar Anupam and Manoj Kumar Gupta, ‘Sequential Pilot-Scale Remediation of Paper Mill Effluent by Fly Ash and Microbial Consortia and Preparation Method Thereof’ (Application No.202211073896, Filed on 19-Dec-22)

Memorandum of Understanding (MoU) Signed

Following MoUs were signed during 2022-2023 with different research and academic institutions.

1. Memorandum of Understanding (MoU) between CPPRI and NJB , Ministry of Textile, New Delhi on April 2022.
2. Memorandum of Understanding (MoU) between CPPRI and Northern Indian Textile Research Association (NITRA) Ghaziabad on April 8, 2022
3. Memorandum of Understanding (MoU) between CPPRI & Sobhit University, Gangoh Campus on April 26, 2022
4. Memorandum of Understanding (MoU) between National Productivity Council (NPC), New Delhi and CPPRI on June 22, 2022.
5. Memorandum of Understanding (MoU) between CPPRI and CSIR- Central Scientific Instruments Organisation (CSIO), Chandigarh on August 5, 2022
6. Memorandum of Understanding (MoU) between CPPRI and M/s Institute for Industrial Development (IID) on September 01, 2022
7. Memorandum of Understanding (MoU) between CPPRI and CSIR- Central Food Technological Research Institute (CFTRI) Mysuru on December 20, 2022



Signing of MoU with CFTRI

Training/ Skill Development

3 (Three) training programs were organized during the year 2022-2023 in various areas of Process and Quality.

Research Paper Published

14 Research Papers were published in various journals during the year 2022-2023.

Reports Prepared

More than 24 research reports and environmental inspection reports of 126 grossly polluting industries (GPIs) were prepared during the year 2022-2023.

Technical Services

Technical and consultancy services were rendered to various pulp and paper mills and allied industries, technology and chemical suppliers by way of evaluation of raw materials, pulp and paper samples, pulping additives, deinking chemicals, sizing chemicals, stickies control agents, evaluation of suitability of newer grades of imported waste paper, characterization and analysis of various fibrous and non-fibrous raw materials, environmental samples, also providing assistance in trouble shooting, adequacy assessment, performance evaluation of various process operations, effluent treatment plant and pollution control equipment. It has lead to internal revenue generation of around Rs. 352.78 Lacs.

Infrastructure Development

Following major equipments were procured during the year 2022-2023

- **The Ozone Generator**



- **Oxygen Plant**



PSA Based Oxygen Concentrator

- **High Pressure Ion Chromatograph (HPIC)**

HPIC with Electro-chemical detector and Conductivity detector was procured and this instrument works on chromatographic technique and will be used for the separation of anions, organic acids, and carbohydrates along with their quantification.



High Pressure Ion Chromatograph

• Ultra-Water Purifier

Ultra-water purifier was procured from “Lablink” company. This unit can dispense two type of water. Type-I water and type-II water. Type-II water is normal filtered water and can be used in the synthesis and washing purposed. On the other hand Type-I water is highly pure in nature with 99.9% deionized water which is used in AAS and HPIC; since these instrument demands high purity water.



Ultra-Water Purifier

Kargad Bharti

CPPRI, Raj Bhasha Prakosth published a publication ‘Kargad Bharti’ which is a Hindi language magazine dedicated to research in the field of pulp and paper. This magazine serves as a valuable resource for professionals, researchers and enthusiasts interested in the latest developments and insights within this industry in Hindi language.

Kargad Bharti has consistently been at the forefront of disseminating knowledge related to pulp and paper in Hindi. Its commitment to bridging the gap between academia and industry is highly commendable and it plays a pivotal role in fostering innovation and sustainable practices in the field. The publication of research activities of CPPRI in Rashtra Bhasha will helpful in growing the interest of the non scientific community to understand the research and developmental work of CPPRI.



Glimpse of Magazine Launch



Published Issue

Sansmarnika

CPPRI published “Sansmarnika” a publication on its Foundation Day on November 11, 2022. Sansmarnika is a compilation of inspiring memories of CPPRI former and present scientists and other staff. The publication incorporated the golden memories of Developmental Journey of CPPRI written by Dr. A. Panda (former Director CPPRI), Shri V.K. Mohindru (former Director CPPRI), Dr. Priti S. Lal, Dr. Nitin Endlay, Dr. Nitin Kumar, Dr. Jitender Dhiman, Shri M.P. Sharma and Shri Gopal Dutt kandpal.

Receipts & Payment

During the year 2022-23 total receipt of the Institute was Rs. 1497.22 Lacs which includes Grant Received Rs. 1078.17 Lacs (Rs. 370.19 Lacs as Grant in Aid under Project Based Support and Rs. 707.98 Lacs under the head Development Council for Pulp & Paper & Allied Industries)

The total payment during the year was Rs. 1401.40 lacs including payment for procurement of Assets i.e. Rs. 96.80 Lacs.

Internal Revenue Generation

During the year Institute received Internal Revenue Generation (IRG) of Rs. 352.78 Lacs from various services viz Testing Fee, Consultancy and Training etc. offered by the Institute.

R & D ACTIVITIES

(A) Schemes Carried Out Under Project Based Support (PBS)

1. Centre of Excellence for Multiplication of Quality Planting Stock of Selected Tree Species for Indian Pulp and Paper Industry.

Objectives

Availability of quality raw material is always an area of concern for stake holders. DPIIT-GOI has awarded this project on development of infrastructure on plantation jointly to CPPRI Saharanpur and FRI Deharadun. The objectives of the project are :-

- To select various families and genotypes of five indigenous tree species with potential as alternate raw material for pulp and paper industry.
- To study the long term tree improvement and wood science for selected indigenous tree species with multiplication and deployment of promising genotypes.
- To characterize different genotypes rapidly for physical and chemical properties using conventional and non-destructive technologies using Near-Infrared (NIR) Spectroscopy .
- To develop clonal multiplication areas and production populations for future research and commercial deployment.
- To ultimately establish Centre of Excellence for Multiplication of Quality Planting Materials of selected indigenous tree species with higher productivity.

Highlights

The project activities are initiated as according to the work plan followed for the period of April 2022 to March 2023.

- The selection of plantation site at 2 locations at CPPRI followed by its preparation was completed.
- First lot of saplings of Chukrasia species plantation is completed at CPPRI at site & 300 no of plants were planted with the help of FRI, Dehradun and regular manpower have been deployed for observing the satisfactory growth of the plants.
- Under the project fabrication of 4 numbers of the mist chamber is to be completed. After finalization of specifications by FRI the tender document for mist chamber was prepared. The tender documents for procurement of mist chamber (2 Nos.) was uploaded on GeM.

- Two more site selection for plantation of other Genotypes was carried out. The tender for the vendor for land preparation work was uploaded on GeM and order to selected vendor was placed. The total 18000 sq meter land is under preparation for second round of plantation.



Plants transported from FRI to CPPRI



Visit of plantation site by FRI and CPPRI Scientists

2. Setting Up of Waste Paper Recycling Promotion Center (WPRPC)

Objectives

- Setting up of Waste Paper Recycling Promotion Centre (WPRPC) in Delhi and Chennai, in a step forward to make the waste paper collection sector organized and thus increasing the waste paper collection rate in the country.
- The genesis of the idea of setting up of the (WPRPC) lines in the provision of Solid Waste Management Rules, 2016 and the proposed national material recycling policy.

Highlights

- In order to set up the Delhi WPRPC centre, formalities of hiring the premises of North Centre-WPRPC Delhi center were completed and the center was inaugurated by Shri T. Balakumar, Chairman DCPAI on October 12, 2022 at Patparganj Industrial Area, New Delhi.
- To study the existing supply chain of wastepaper in Delhi region, meeting was held wastepaper dealers and list of wastepaper traders in the Delhi region was prepared.
- To study the prevailing wastepaper collection sorting and segregation mechanism in Delhi, WPRPC team visited Central Hub, Ragubhir Nagar, West Zone, SDMC on 24.02.2023. Central Hub is a joint initiative of ITC and South Delhi Municipal Corporation for Dry waste and Plastic Waste Material Recovery and Processing.



Arrival of Dignitaries



Shri T. Balakumar, inaugurating the Center



Inaugural session in progress (L to R, Dr M.K. Gupta, Director, CPPRI, Dr R.C Rastogi, CMD, Khatema Fibres, and President, IRPMA, Shri T. Balakumar, Subam Papers Private Limited, and Chair, DCPPI, Shri Pramod Agarwal, CMD Rama Papers and President, IARPMA, Shri Satpal Gupta MD Narsingh Dass and Company and Dr. Tanveer Alam, Center head, IIP, Delhi.

3. Bio-pulping of lignocellulosic Material to Reduce Chemical and Energy Demand in Various Pulping Processes

Objectives

- Screening and characterization of lignin degrading fungi for the use in Biopulping process.
- Investigation of fungal treatment of various raw materials for selective lignin degradation during Biopulping to achieve chemical and energy savings and improvement in paper strength.
- Setting up pilot plant for validation of laboratory studies with respect to reduction in chemical, energy demand and pulp properties.

Highlights

- Proximate analysis including Lignin, Holocellulose, Ash content, hot water solubility and N/10 solubility of two biomass wood and wheat straw was conducted.
- Pulping parameters such as bath ratio, sulfidity and digester temperature for wood and wheat straw were optimized.

- Brightness and opacity studies were conducted on pulp pads prepared using with wood & wheat straw-based pulp.
- Burst strength of sheets prepared from the pulp extracted from wood and wheat straw was carried out.
- Identified white rot fungus and grow it in bulk for the bio-pulping of the both agro and wood based samples.
- Both type of samples were exposed to white rot fungus and are in bio-pulping stage.
- Preparation of pulp pads with wheat straw pulp for the brightness and opacity studies was completed.

4. Setting Up of the State-of-the-Art Chemical Recovery Laboratory

Objectives:

- Setting up of the State-of-the-art chemical laboratory in country to provide services to Indian paper industries which they sought from European and other developed countries, thereby saving their time and foreign currency.
- To create empowered workforce in the field of chemical recovery with the help of various schemes and training courses as to support Skill India initiative by government.
- Development of data bank of black liquor, green liquor, white liquor, lime cake etc. for silica and non process elements (NPE) rich raw materials. Such data is currently unavailable in the country.
- Generation of this data bank will assist the Indian paper mills and equipments suppliers to run and design chemical recovery system efficiently.

Highlights

Chemical recovery process is the main sustaining step for paper manufactures. An effective chemical recovery process helps the sector to be environmentally compliant and helps it to be less resource intensive. With the steps under way to allocate degraded forests for pulpwood plantations, more and more units are likely to shift to using wood from captive pulpwood plantations. This will necessitate the mills to increase existing capacities of the Chemical Recovery Operations. Also, in the times to come, new and larger chemical recovery boilers will be used by the industry. This will require a state of the art chemical recovery laboratory to provide the technical hand holding for the Indian paper sector.

Purchased equipments such as automatic bomb calorimeter, Ball mill and pulping digester with accessories. Data generation on chemical recovery samples is under progress. Purchasing of other

equipments such as pilot evaporator, particle size analyzer, boiling point rise setup and TGA/DTA is various paper industries were provided training and troubleshooting support onsite. Training provided to various students in chemical recovery area.



Automatic Bomb Calorimeter



Ball Mill



Digester With Accessories

Purchased Instruments

5.Setting Up of a Pulp and Paper Mill Based Bio-Refinery Laboratory

Objectives

- Pulp and paper mills are logical hubs of biorefinery activity. About half the organic mass that enters in a traditional pulp and paper mill is incinerated. This is the most conservative use of any biomass. Full integration of the incoming biomass and other raw materials, including energy, for simultaneous production of paper, chemical and energy is the major objective of this bio refinery based project so that economics of the mills could be improved.
- By integrating bio refinery activities mills have the opportunities to produce bio-energy and bio-products along with pulp and paper. It will reduce the dependence on fossil fuels.

Highlights

Prepared bio char from different biomass samples and data generation on analysis of bio char and biogas feedstock is under progress. Instruments such as rheometer and CHNS analyzer are being maintained under annual maintenance contract (AMC). Purchase of reactor for bio-oil production in laboratory by using different biomasses is under progress. Purchase of other sophisticated instruments is under progress. Training is provided to students and related industry staff in area of bio refinery.



Centrifuge



Rheometer under AMC



CHNS Analyzer under AMC

Purchased instruments and Instruments under AMC

(B) RSC- DCPPIAI Funded Projects

1. Screening of Parents for Clonal Forestry and Hybridization for Higher Productivity in Eucalyptus (Joint Project of CPPRI-FRI-SPM-IPMA)

Objective

- To screen and select promising provenances, families and genotypes from already established trials
- To induce juvenility by establishing selected genotypes in vegetative multiplication garden and develop clone specific protocol through macro propagation for mass multiplication
- To establish field trials for evaluation of superiority for different economic traits over geographical locations, and analyze interactions of plants and soil fertility
- To register selected clones / genotypes as well as release of promising ones for commercial cultivation



Highlights

- The project activities are completed and selected species of quality eucalyptus plants are for field trial. Report of the project is under preparation.
- 2. **Study on delignification of Agro Residue Raw Materials Using Deep Eutectic Solvents or/ and Ionic Liquids (Joint Project of CPPRI-ACIRD)**

Objectives

- Screening of most suitable/ effective deep eutectic solvent(s) or/and ionic liquid(s)
- Pulping of raw materials using selected deep eutectic solvent(s) or/and ionic liquid(s)
- Characterization of unbleached pulp for different properties
- ECF bleaching of pulp produced using optimized conditions
- Characterization of bleached pulp for different properties

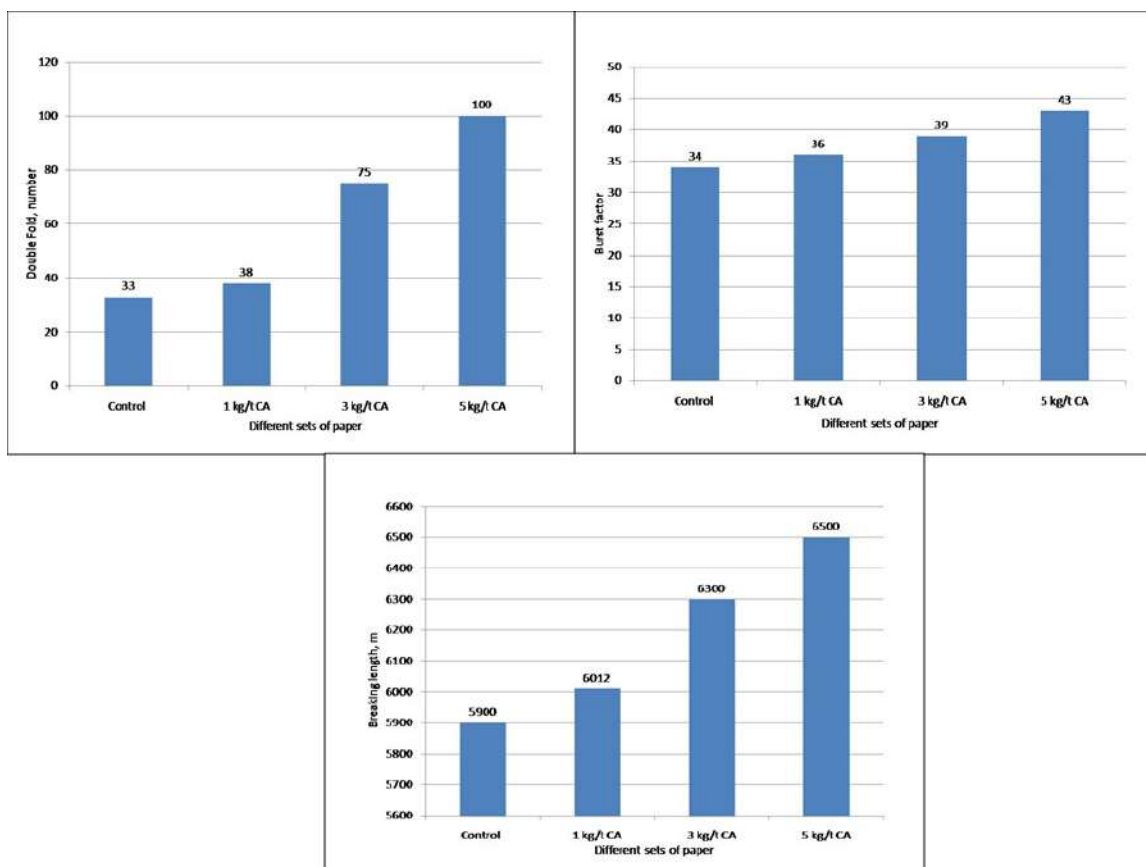
Highlights

- The study on pulping of bagasse and wheat straw using eutectic solvent and control soda pulping was carried out. The unbleached pulp was bleached with DEpD bleaching. The overall impact of addition of eutectic solvent was evaluated.

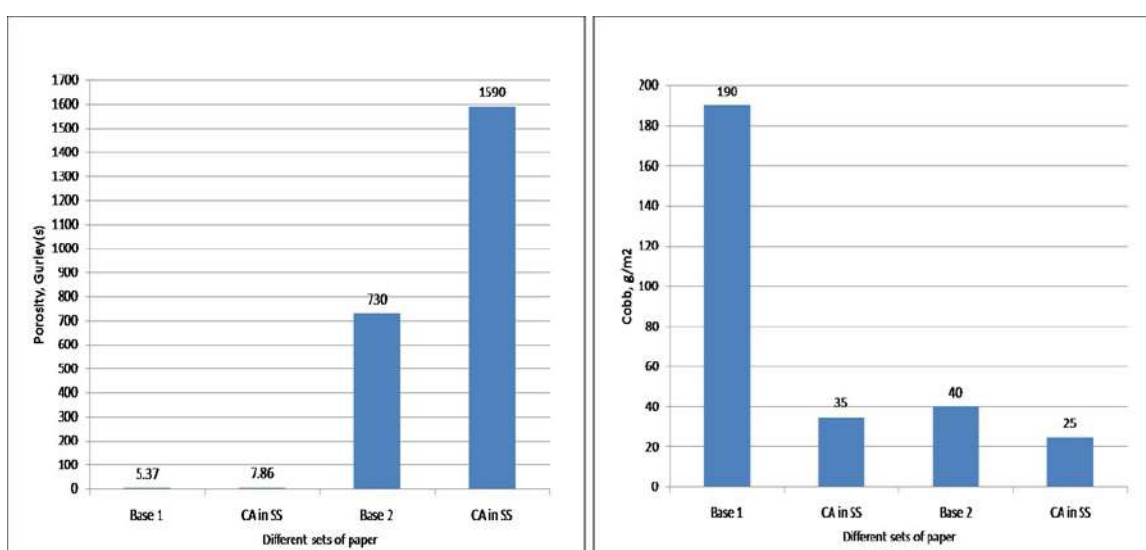
3. **Bio-polymeric Approach for Improvement of Mechanical and Barrier Properties of Packaging Paper/ Paperboard through Surface Application (CPPRI).**

- Sustainable packaging can be defined as packaging that utilizes environmentally friendly materials to wrap, store, and ship products, without causing any long- or short-term detrimental effect on the environment. The use of biopolymers as packaging materials has certain limitations like inferior strength, thermal and barrier properties in comparison to that of petroleum-based polymers.

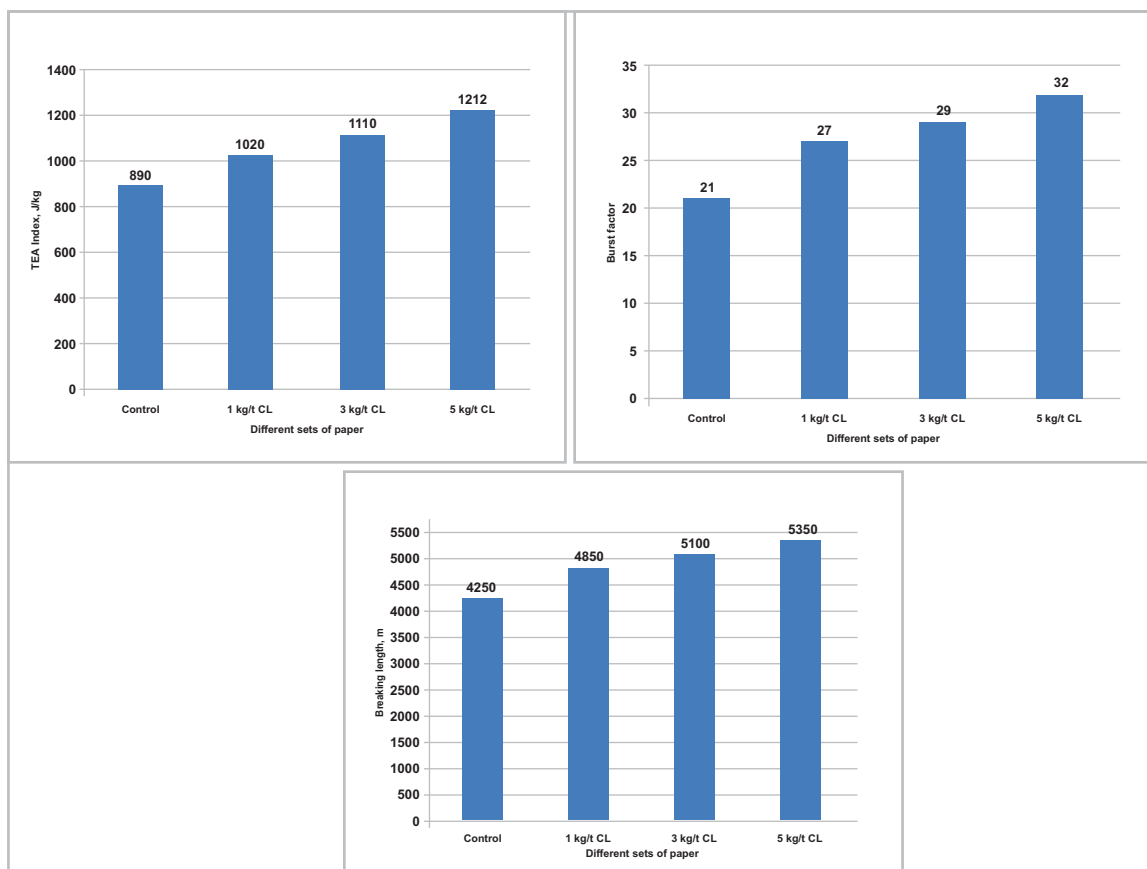
Inherently, paper and paper products are hygroscopic in nature and lack required barrier properties against moisture, oil and water etc. To control barrier properties number of petroleum based derivatives such are used which reduces the recyclability and biodegradability of paper. Research is in progress to replace these synthetic barrier chemicals by biopolymeric chemicals. A project under RSC- DCPPI was initiated with an approach of focusing the application of biopolymers on paper for achieving barrier properties towards water, oils and moisture. Initial work of literature survey on various biopolymers available and methods of their evaluation and application in laboratory are in progress. Some results are shown below.



Impact of wet-end application of biopolymer 1 on double fold, breaking length and burst factor of paper



Impact of coating of biopolymer 1 on porosity and Cobb value of paper



Impact of wet-end application of biopolymer 2 on Burst factor, TEA index and breaking length of paper

4. Land Application of Treated Effluent from Pulp & Paper Mill and Evaluation of its Impact on Soil, Ground Water Properties & Crop Productivity (Joint project of CPPRI and IARI)

Objective

- The objective of this project jointly executed by CPPRI & Indian Agricultural Research institute (IARI) is utilization of treated effluents for land application (agriculture / horticulture to conserve fresh water) and evaluation / monitoring of the impact of land application of treated effluent on soil properties, ground water quality as well as crop health.

Highlights

Under the project following activities were carried out during the year:

- The field trial at selected site using the proposed dilution treatments in the Rabi wheat and mustard crops is under progress.

- Information pertaining to irrigation scheduling, crop growth parameters and soil sample for quality were collected through regular field visits and sample collection and analysis.
- The yield and the possible impacts of dilution treatments on the crop, soil, and water will be analyzed by the end of Rabi season.
- Pot experiments were also set up using the same dilution treatments with wheat, barley, and leafy vegetable (Spinach) and a floriculture Calendula flower.
- All the relevant information pertaining to each dilution effect is being monitored on regular basis.
- The experiments will be continued for three consecutive seasons and results shall be collected.



Director CPPRI and Senior Scientists on Field Visit at Mill Site

The progress of the project activities were presented before Technical Sub Committee of Research Steering Committee of Development Council for Pulp, Paper & Allied Industries

5. Bacterial Cellulose Production for Diverse Applications in Pulp and Paper Sector

Objective

- Laboratory Scale Production and Characterization of Bacterial Cellulose.
- Investigation of Application of Bacterial Cellulose in Pulp and Paper Sector.

Highlights

- Characterisation of Bacterial Cellulose (BC) via XRD, FTIR and SEM.
- Surface sizing and Wet-End based application studies of Bacterial Cellulose to improve strength properties in paper.

- Addition of BC in Oxidised Starch (OS) improved the efficiency of OS for surface sizing application. The surface sizing of OS improved the breaking length (MD), tear index (CD) and burst index in comparison to the strength properties of the base paper.
- Addition of BC in CS improved the efficiency of CS for wet-end application. The wet-end application of CS in wet-end of papermaking improved the breaking length, tear index and burst index in comparison to the strength properties of the paper made using only pulp.
- WTR and OTR based experiments are in progress.

6. Studies on Alternate Auto-Causticization Process for Conventional and Non-Conventional Chemical Recovery Systems

Objectives

- Development of improved method for causticizing sodium carbonate containing smelt in conventional chemical recovery system and Na_2CO_3 generated in Copeland (LTI) Chemical recovery system.
- Reduction in the complexity of conventional causticization process in conventional and non conventional chemical recovery systems.
- Making chemical recovery operations cost effective and better affordable in small mills.
- Reduction in energy requirements and environmental hazards associated with solid waste and greenhouse gas emission.
- Reduction in lime requirement.

Highlights

Analysis of various sample at Lab scale auto causticization was carried out to find out the design parameter for proposed causticization bench scale plant. Finalization of design parameters for the bench scale plant and its fabrication is under progress.

(C) Projects on Recyclability of Paper

Making Potential of Packaging Material used by Fast Moving Consumer Goods Companies (FMCG) and Packaging Industries

Under the above activity 33 postconsumer packaging samples were evaluated and services has been provided to the following 16 fast moving consumer goods Companies (FMCG) and Paper Mills-



- Bulk MRO Industrial Supply Private Limited, Mumbai, Maharashtra
- Chemline India Limited, Sonipat, Haryana
- Erthe Paper Solutions Private Limited, Pune, Maharashtra
- Huhtamaki India Limited, Raigad, Maharashtra
- Intek Tapes Pvt. Ltd., Bangalore, Karnataka
- ITC Ltd. Pspd, Secudarabad, Telangana
- L'oreal India Private Limited, Mumbai, Maharashtra
- Oryza Fibers Private Limited, Surat, Gujarat
- PIPL (Pratishthan Industries Private Limited), Aurangabad, Maharashtra
- Quinn Facility Management Services Private Limited, Mumbai, Maharashtra
- Rathna Packaging India Private Limited, Krishnagiri, Tamil Nadu
- Sprout Private Limited, Kannur, Kerala
- Sumukha Hitech Products Industry, Sedarapet, Puducherry
- Tetra Pak India Private Limited, Pune, Maharashtra
- Unilever Industries Private Limited, Mumbai, Maharashtra
- Veekay Industries Private Limited Gautam Budh Nagar, Uttar Pradesh

Projects Sponsored by Pulp, Paper and Allied Industries

1. National Jute Board-Study on Laboratory and Pilot Scale Production of Dissolving Grade Pulp (Viscose Pulp) from Whole Jute

National Jute Board is the apex body which takes cares about cultivation and utilization of jute plant. Keeping in view of the fibre property, National Jute Board made a plan for utilization of whole jute for production of dissolving grade pulp, which is the highest purity alpha cellulose pulp. The successful trial results of laboratory scale first phase pilot plant whole jute trial was conducted in CPPRI adopting different process stages viz. chopping of whole jute in pilot plant chipper, pre-hydrolysis, pulping and DEpD bleaching sequence to get desired pulp properties. The alpha cellulose content was obtained +90% and all other characteristics were also found in the range of dissolving grade pulp requirement. The dissolving pulp was delivered to Aditya Birla Science and Technology Company Limited Mumbai Maharashtra for viscose fibre. The results of production of dissolving grade at lab scale whole jute was shared with sponsoring agency. Based on the successful trial results of laboratory scale trials on preparation of dissolving grade pulp from whole jute, National Jute Board decided to go for pilot plant scale trial of the process. NJB has sponsored a project on **“Production of Pilot Scale Whole Jute Dissolving Pulp for Viscose Fibre”**. The work carried out under the projects is first time reported and an achievement for CPPRI.



Interaction of CPPRI Official with NJB Official

2. Northern India Textile Research Association (NITRA), Ministry of Textile, Govt. of India, Ghaziabad-Dissolving grade pulp production from bamboo species viz bambusa balcooa, bamboo vulgar and bamboo tulda

The demand of rayon fibre is increasing very fast and so there is need of research and development work for evaluation of different cellulosic raw materials other than conventionally used hard woods one of such species is bamboo. Northern India Textile Research Association (NITRA) sponsored a project to CPPRI to evaluate three species of bamboo viz. bambusa balcooa, bambusa vulgar and bambusa tulda. The project was successfully completed and project report was submitted to NITRA.

3. Central Pollution Control Board-Monitoring of Grossly Polluting Industries in Ganga and Yamuna River Basin

CPPRI successfully completed monitoring of the technological environmental status of over 126 Grossly Polluting Industries (GPI) located in Ganga, Yamuna and Hindon River Basin in the states of Uttar Pradesh (Saharanpur & Muzaffarnagar), Uttarakhand (Roorkee) and Haryana (Karnal, Sonapat, Panipat, Yamuna Nagar, Ambala and Kurukshetra) started from Dec. 2022. The units included diverse sectors like pulp and paper, electroplating, textiles, chemicals and slaughter house. A comprehensive report of the units inspected by CPPRI was submitted to CPCB. Further being Nodal institute CPPRI also compiled the data of all the mills inspected by itself and other 11 participating institutes and prepared a Comprehensive Report on environmental status of Pulp and Paper Sector in Ganga and Yamuna River basin along with observations, interpretation recommendations. Finally a detailed presentation was made before CPCB and MoEFCC officials by Dr. Nitin Endlay nominated as Nodal Officer for Pulp and Paper Sector under this study.



Paper Mill



Textile Unit



Electroplating Unit

4. UNIDO (IC-ISID)-Firm Level Demonstration of Technologies and Productivity Enhancement for the Pulp and Paper Industry

The project is being implemented by United Nations Industrial Development Organization (UNIDO) in close cooperation with CPPRI and the Industry associations. This project envisages to demonstrate (on pilot scale at mill level at multiple locations across the country) two technologies (membrane filtration and liquor heat treatment) along with the development of the requisite capacity and process improvement interventions. This will facilitate technology uptake and firm level innovations leading to increased productivity and competitiveness. The project envisages 20 demonstrations at mill level followed by training cum dissemination workshops for the other mills in the same regional clusters.

Membrane Filtration Technology

Based on the successful pre - pilot scale trials carried out at two agro based pulp and paper mills producing writing and printing and kraft grade of paper respectively , a skid mounted containerized pilot scale Membrane filtration pilot demonstration unit was fabricated based on the configuration and specifications finalized by CPPRI and UNIDO jointly. The pilot scale membrane filtration studies were carried out in an agro based paper mill producing unbleached grade of paper. The initial results are encouraging in context of reduction in TSS, TDS, COD and Color reduction.



CPPRI & UNIDO Officials at Mill Site for PrePilot Trials

The findings of the pre pilot trials were disseminated through Workshops organized by UNIDO in collaboration with CPPRI at Vapi on August 19, 2022 and Kolkatta on September 8, 2022.

The first trial with skid Mounted Membrane Filtration System was carried out at an Agro based Pulp and Paper Mills Limited in Muzaffarnagar in March 2023.



Skid Mounted Containerized Membrane Filtration Pilot Demonstration Unit

The data compilation and Performance evaluation of the pilot scale trials is under progress .

Liquor Heat Treatment (LHT)

Successful trials of Liquor Heat Treatment pilot plants have been conducted at Tamil Nadu Newsprint and paper limited, Karur and Yash Pakka Ltd, Ayodhya.



UNIDO-CPPRI team along with GB Power Projects (P) Ltd team during trial of liquor heat treatment (LHT) pilot plant at M/s Tamil Nadu Newsprint & Paper Limited,

5. Indian Paper Manufacturers Association(IPMA)-Zero Liquid Discharge In Wood and Agro Based Pulp and Paper Mills-Relevance and Feasibility in Indian Perspective

A study on Zero Liquid Discharge in Wood and Agro Based Pulp and Paper Mills – Relevance and Feasibility in Indian Perspective was awarded by Indian Paper Manufacturers Association (IPMA) to Central Pulp and Paper Research Institute (CPPRI) to explore the relevance and feasibility of ZLD in wood based and agro based pulp and paper mills in Indian perspective .

A detailed report containing Fresh Water Consumption current status and benchmarks, Zero Liquid Discharge (ZLD) Concept, Evolution and Technology Options, Techno-Economic Feasibility of ZLD in Indian Paper Industry Perspective, along with observations and recommendations was prepared and submitted to IPMA.

6. Fortum India-Setting Up of a Bio-Refinery Laboratory

Government of India is promoting various technologies to produce renewable energy and reduce the dependence from fossil fuels. One such initiative is to produce ethanol from non-food feedstocks. Assam Bio Refinery Private Limited (ABRPL) is a joint venture company (promoted by Numaligarh Refinery Limited and two foreign companies Fortum and Chempolis from Finland) in Numaligarh, Assam. ABRPL is established to produce ethanol by bamboo feedstock as bamboo is available in abundance in North-Eastern (NE) states of India and for this ABRPL has already started the commissioning of bio refinery plant. ABRPL is also installing a biorefinery laboratory at their site. For this, authorities from ABRPL has sponsored a project to CPPRI with aim to seek consultancy services from CPPRI for installation of their bio-refinery laboratory.

CPPRI has provided extensive support to ABRPL for establishing their bio refinery laboratory in terms of preparation of test methods & SOPs, technical specifications for purchasing of equipments, list of equipment suppliers, laboratory space optimization, manpower requirement and onsite consultancy etc.



CPPRI team with ABRPL team at site in Assam

7. National Council for Cement and Building Materials (NCCBM)-Design, Structural Development and Chemical Formulation of Lingo-Sulfonate to Achieve High Performance of Cementitious Materials

This is joint project of National Council for Cement and Building Materials (NCCBM) Ballabgarh and CPPRI. In this project, investigation was carried out on introducing different functional moiety like of amine, imine, ether, etc into the lignosulfonate molecular chain to develop chemical formulation required to get desired performance of cement. Investigations will be performed using the modified lignosulfonate on consistency, compressive strength, setting time and durability of both cement paste and mortar. Investigations will also be performed to synthesize varying formulations of modified sodium lignosulfonate with other admixtures and study their effect on the physical properties of cement paste and mortar. Studies will be performed on its effect on the tensile strength, compressive strength and flexural strength. The effect of the admixture on shrinkage, slump, air content and microstructure will also be explored.

8. National Council for Cement and Building Materials (NCCBM)- Application of Lime Sludge form Paper Industry Waste for Partial Replacement of Cement Mortar and Concrete

This is joint project of National Council for Cement and Building Materials (NCCBM) Ballabgarh and CPPRI. In this project, investigation on utilization of lime sludge will be done in their both raw mill and blending with clinker to obtain desirable performance of cement. Investigations performed using the paper mill lime sludge on consistency, compressive strength, setting time and durability of both cement paste, mortar and concrete to understand the physical and structural properties. Physio-chemical study will be explored for various formulated lime sludge added to clinker samples.

Rural Upliftment Project:

Chemi Thermo Mechanical Pulping of Pine needle, kala bass and Lantana for Pulp Making- Khand Vikas Adhikari, Ekeswar, Garhwal

There are lots of alternate cellulosic species which has good potential but are not being used by conventional pulp and paper production units due to multiple reasons like availability, chemical characteristics etc. In the hills of Garhwals there are species which can be utilized for production of CTMP pulp which may use in production of tablewares, packaging, building materials etc. The CTMP pulping of Pine needles, Kala bass and Lantana was carried out under the project and report was submitted to Khand Vikas Adhikari, Ekeswar, Garhwal.

TECHNICAL AND CONSULTANCY SERVICES

Technical Services were rendered to the following mills and organizations by analyzing various samples of fibrous and non fibrous raw materials (Pulp, paper, black liquor, lime, lime sludge, rice husk, green liquor, white liquor, effluents, ground water, solid waste etc).

- ABP Private Limited, Kolkatta, West Bengal
- ABS PULPSS, Namakkal, Tamil Nadu
- ACFA Industrial Company for Industry, Riyadh, Saudi Arabia
- Adinath Electronic Security, Jabalpur, Madhya Pradesh
- Agarwal Duplex Board Mills Limited, Muzaffarnagar, Uttar Pradesh
- Agarwal Enterprises, Patna, Bihar
- Aggarwal Zarda Factory Private Limited, Saharanpur, Uttar Pradesh
- AL Akhlaq Exports Limited, Meerut, Uttar Pradesh
- Alok Printers, Agra, Uttar Pradesh
- Amber Press Private Limited, Lucknow, Uttar Pradesh
- Amrita Printers, Kanpur, Uttar Pradesh
- Andhra Paper Limited, Rajamundry, Andhra Pradesh
- Andhra Paper Limited, Kadiyam, Andhra Pradesh
- ANDRITZ Technologies Private Limited, Chennai, Tamil Nadu
- Ani Mart, Jabalpur, Madhya Pradesh
- Anubhav Enterprises, Kanpur, Uttar Pradesh
- Anupam Prakshan, Mathura, Uttar Pradesh
- Anupam Textile, Hathras, Uttar Pradesh
- Arihant Flexi Pack, Dadra and Nagar Haveli
- Asha Printing Press, Sonebhadra, Uttar Pradesh
- Ashok Rai Boards, Chennai, Tamil Nadu
- Ashu Enterprises, Sonebhadra, Uttar Pradesh
- Asian Paper Products, Karnal, Haryana
- Aspha Board Private Limited, Pune, Maharashtra
- Assam Bio Refinery Private Limited, Golaghat, Assam
- Avon Pacfo Services Private Limited, Faridabad, Haryana
- Bhagwat Printing Press, Mathura, Uttar Pradesh

- Bhagwati Enterprises, Patna, Bihar
- Bhagwati Kripa Paper Mills Private Limited, Jaipur, Rajasthan
- Bihar Agricultural Management & Extension Training, Patna, Bihar
- Bihar State AIDS Control Society, Patna, Bihar
- Bihar State Power Holding Corporation Limited, Patna, Bihar
- Bihar State Text Book Publishing Corporation Limited, Patna, Bihar
- Bihar Vidyalya Pariksha Samiti, Patna, Bihar
- Bimal Papers Private Limited, New Delhi
- Bindals Papers Mills Limited, Muzaffarnagar, Uttar Pradesh
- Bindiya Enterprises, Kheda, Gujarat
- Bindlas Duplux Limited, Muzaffarnagar, Uttar Pradesh
- Board of School Education Haryana, Bhiwani, Uttar Pradesh
- Box Corrugators and Offset Printers, Bhopal, Madhya Pradesh
- Brown Overseas Private Limited, Mumbai, Maharashtra
- Buckman Laboratories (India) Private Limited, Mumbai, Maharashtra
- Bulk MRO Industrial Supply Private Limited, Mumbai, Maharashtra
- C2C Consultancy, Tirpur, Tamil Nadu
- Cellpap Mercantile Private Limited, Mumbai, Maharashtra
- Central Board of Secondary Education, New Delhi
- Central Food Technological Research Institute, Mysore, Karnataka
- Central Pollution Control Board, New Delhi
- Century Pulp and Paper, Nainital, Uttarakhand
- Chadha Papers Limited, Rampur, Uttar Pradesh
- Chadha Papers Limited, Noida, Uttar Pradesh
- Chandpur Enterprises Limited, Bijnor, Uttar Pradesh
- Chaudhary Charan Singh University, Meerut, Uttar Pradesh
- Chaudhary Traders, Saharanpur, Uttar Pradesh
- Chemline India Limited, Sonipat, Haryana
- Chhatrapati Shahu Ji Maharaj University, Kanpur, Uttar Pradesh
- Deepak Printers & Publishers, Nainital, Uttarakhand
- Delhi Bureau of Text Books, New Delhi
- Deluxe Paper Mart, Mumbai, Maharashtra

- Deluxe Recycling India Private Limited, Mumbai, Maharashtra
- Desai Trading Company, Ahmedabad, Gujarat
- Dev Priya Products Private Limited, Meerut, Uttar Pradesh
- Dhanlaxmi Agromills Private Limited, Udham Singh Nagar, Uttarakhand
- Disha Industries Private Limited, Muzaffarnagar, Uttar Pradesh
- Dr. APJ Abdul Kalam Technical University, Lucknow, Uttar Pradesh
- Durga Handmade Papers, Haridwar, Uttarakhand
- Dynamic Textbooks Printers Private Limited, Bijoli, Uttar Pradesh
- Eco Tech Papers, Guwahati, Assam
- Educational Stores, Ghaziabad, Uttar Pradesh
- Ekman Pulp and Paper Private Limited, Mumbai, Maharashtra
- Employment News (Publications Division), New Delhi
- Erthe Paper Solutions Private Limited, Pune, Maharashtra
- Everest Industries Limited, Bhagwanpur, Uttarakhand
- Everest Industries Limited, Coimbatore, Tamil Nadu
- Everest Industries Limited, Nasik, Maharashtra
- Fortum India Private Limited, Gurugram, Haryana
- Garg Duplex and Paper Mills Private Limited, Muzaffarnagar, Uttar Pradesh
- General Offset Printing Press Private Limited, Prayagraj, Uttar Pradesh
- Genus Paper and Boards Limited, Moradabad, Uttar Pradesh
- Global Parachem LLP, Ghaziabad, Uttar Pradesh
- Grasim Industries Limited, Kumarapatnam, Karnataka
- Grasim Industries Limited, Raigad, Maharashtra
- Green Jams Build Tech Private Limited, Roorkee, Uttarakhand
- Green World Publication (I) Private Limited, Prayagraj, Uttar Pradesh
- G-Tech Print Works, Mathura, Uttar Pradesh
- Gulshan Arora, Mohali (SAS Nagar), Chandigarh
- Gulshan Polyols Limited, Sirmour, Himachal Pradesh
- H.G. Hawa and Corporation, Mumbai, Maharashtra
- Haryana School Shiksha Pariyojna Parishad, Panchkula, Haryana
- Hexagon Prints and Pack Private Limited, Mumbai, Maharashtra
- Himachal Pradesh Board of School Education, Dharamshala, Himachal Pradesh

- Hindon Filters (P) Limited, Saharanpur, Uttar Pradesh
- Hi-Tech Printers and Publishers, Mathura, Uttar Pradesh
- HT Media Limited, Greater Noida, Uttar Pradesh
- Huhtamaki India Limited, Raigad, Maharashtra
- Huhtamaki India Limited, Rudrapur, Uttarakhand
- Indian Paper Manufacturers Association (IPMA), New Delhi
- Indigenous Energy Storage Technologies Private Limited, Roorkee, Uttarakhand
- Infinity Advertising Services Private Limited, Faridabad, Haryana
- Innovate Pulp and Paper LLP, Gautam Buddha Nagar, Uttar Pradesh
- Insan Paper and Boards, Ladwa, Haryana
- Intek Tapes Private Limited, Roorkee, Uttarakhand
- ITC Limited, PSPD Tribeni, Hooghly, West Bengal
- ITC Limited - PSPD, Secunderabad, Telangana
- ITC Limited, ESPB Division, Chennai, Tamil Nadu
- ITC Limited, PSPD, Bhadrachalam, Kothagudem, Telangana
- JK Paper Limited, Tapi, Gujarat
- JK Paper Limited, Rayagada, Odhisa
- Jai Narayan Vyas University, Jodhpur, Rajasthan
- JK Paper Limited, New Delhi
- JMC Paper Tech Private Limited, Sanand, Gujarat
- Jolly Board Limited, Aurangabad, Maharashtra
- JSS Packaging Private Limited, Kolkatta, West Bengal
- KR Pulp and Paper Limited, Shahjahanpur, Uttar Pradesh
- K.C. Printing and Allied Works, Mathura, Uttar Pradesh
- Karalaya Bihar Sanskrit Shiksha Board, Patna, Bihar
- Karnataka Text Book Society® Bengaluru, Karnataka
- Karyalaya Collector Evam Zila Nirvachan, Reeva, Madhya Pradesh
- KaryalayaCollector Evam Zila Nirvachan Adhikari, Gwalior, Madhya Pradesh
- Karyalya Collector Evam Zila Nirvachan, Harda, Madhya Pradesh
- Karyalya Collector Evam Zila Nirvachan, Ratlam, Madhya Pradesh
- Karyalya Collector Evan Zila Nirvachan, Chindwada, Madhya Pradesh
- Katyayini Tissues Private Limited, Kashipur, Uttarakhand

- Kazmi and Associates, Prayagraj, Uttar Pradesh
- Khand Vikas Adhikari, Garhwal, Uttarakhand
- Khanna Paper Mills Limited, Amritsar, Punjab
- Khyati Chemicals Private Limited, (Unit-1), Ahmedabad, Gujarat
- KR Pulp and Papers Limited, New Delhi
- Krishnanchal Pulp and Papers Private Limited, Muzaffarnagar, Uttar Pradesh
- Kuantam Paper Limited, Hoshiarpur, Punjab
- Ladhar Paper Mills, Jalandhar, Punjab
- Laxmi Enterprises, Muzaffarpur, Bihar
- Loreal India Private Limited, Mumbai, Maharashtra
- Lovely Offset Printers Private Limited, Enjar Sivakasi West, Tamil Nadu
- Lucknow Paper Distributors, Lucknow, Uttar Pradesh
- Lucknow Printers and Publishers, Lucknow, Uttar Pradesh
- M.K Enterprises, Noida, Uttar Pradesh
- M.L. Paper Convertor, Lucknow, Uttar Pradesh
- M.M Publication Limited, Kottayam, Kerala
- M.P. State Electronics Development Corporation Limited, Bhopal, Madhya Pradesh
- Maa Bhagwati Press, Patna, Bihar
- Maa Shakumbhari University, Saharanpur, Uttar Pradesh
- Madhya Bihar Gramin Bank, Patna, Bihar
- Madhya Pradesh Bhoj (Mukt) Vishvavidhyalya, Bhopal, Madhya Pradesh
- Madhyamik Shiksha Board Rajasthan, Ajmer, Rajasthan
- Madhyamik Shiksha Mandal, Bhopal, Madhya Pradesh
- Mahalaxmi Crafts and Tissues Private Limited, Muzaffarnagar, Uttar Pradesh
- Mahamritunjay Trade and Technology Private Limited, Reewa, Uttar Pradesh
- Maharishi Dayanand University, Rohtak, Haryana
- Mahesh Edible Oil Industries Limited, Agra, Uttar Pradesh
- Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal, Madhya Pradesh
- Maya and Sons, New Delhi
- Maya Enterprises, Kanpur, Uttar Pradesh
- Meenu Paper Mills Private Limited, Muzaffarnagar, Uttar Pradesh

- Merino Industries Limited, New Delhi
- Mithila Printing Press, Madhubani, Uttar Pradesh
- Mitra Data Care, Jabalpur, Madhya Pradesh
- Mohit Paper Mills Limited, Bijnor, Uttar Pradesh
- Mudran Mahal Printers and Publishers, Agra, Uttar Pradesh
- Mysore Sales International Limited, Bengaluru, Karnataka
- Naini Papers Limited, Kashipur, Uttarakhand
- National Health Mission, Panchkula, Haryana
- National Institute of Open Schooling, Ghaziabad, Uttar Pradesh
- National Institute of Open Schooling, Noida, Uttar Pradesh
- National Jute Board, Kolkatta, West Bengal
- National Printers, Ranchi, Jharkhand
- Nav Jyoti Press, Mathura, Uttar Pradesh
- New Bonanza India Limited, Meerut, Uttar Pradesh
- New National Offset, Patna, Bihar
- New Ratan Priya, Patna, Bihar
- Nikita Papers Limited, Shamli, Uttar Pradesh
- Nirmal Traders, Ghaziabad, Uttar Pradesh
- Northern India Textile Research Association, Ghaziabad, Uttar Pradesh
- Office of the Deputy Commissioner of Customs, Surat, Gujarat
- Office of the Director of Printing, Bengaluru, Karnataka
- OG Hemp Private Limited, Kolkatta, West Bengal
- OM Flex India, New Delhi
- Oryza Fibers Private Limited, Ahmedabad, Gujarat
- Oyster Printers and Publishers Private Limited, Mathura, Uttar Pradesh
- P Square Solutions, Mathura, Uttar Pradesh
- Padcare Labs Private Limited, Pune, Maharashtra
- Panchayati Raj Training Institute (PRIT), Lucknow, Uttar Pradesh
- Paras Publication Private Limited, Hajipur, Bihar
- Pioneer Printers, Agra, Uttar Pradesh
- Pitambra Books Private Limited, Jhansi, Uttar Pradesh
- Prarambhik Shiksha Evam Sarva Shiksha Abhiyan, Bhojpur, Bihar

- Prasar Shiksha Evam Prashikshan Bureau, Lucknow, Uttar Pradesh
- Pratibha Pratishthan, New Delhi
- Pratishthan Industries Private Limited (PIPL), Aurangabad, Maharashtra
- Presto Stantest Private Limited, Faridabad, Haryana
- Printex India, Prayagraj, Uttar Pradesh
- Printing and Stationery Department Haryana, Panchkula, Haryana
- Pt. Sunderlal Sharma Open University, Bilaspur, Chattisgarh
- Punjab National Bank, Printing and Stationary Departement, Noida, Uttar Pradesh
- Punjab State Lotteries, Chandigarh
- Quinn Facility Management Services Private Limited, Mumbai, Maharashtra
- R. K. Trading Company, Kasganj, Uttar Pradesh
- Rani Durgavati Vishvidhyalya, Jabalpur, Madhya Pradesh
- Radex Stationery India Private Limited, New Delhi
- Radha Enterprises, Sonebhadra, Uttar Pradesh
- Rajeev Prakashan, Prayagraj, Uttar Pradesh
- Rajya Kendriya Mudranalya, Jaipur, Rajasthan
- Rajya Pariyojna Nideshak, Lucknow, Uttar Pradesh
- Rakesh Papers Private Limited, Ghaziabad, Uttar Pradesh
- Rama Shyama Papers Private Limited, Bareilly, Uttar Pradesh
- Ramesh Publishing House, Mathura, Uttar Pradesh
- Ramraja Printers and Publishers, Jhansi, Uttar Pradesh
- Rathna Packaging India Private Limited, Krishnagiri, Tamil Nadu
- Rational Business Corporation Private Limited, Sonipat, Haryana
- Rhino Roofing Product Limited, Colombo, Sri Lanka
- Richards Chemicals and Electricals Private Limited, Nagpur, Maharashtra
- Rintech Chemicals Private Limited, Bijnor, Uttar Pradesh
- Rishabh Metals and Chemicals Private Limited, Mumbai, Maharashtra
- Ruchira Papers Limited, Sirmaur, Himachal Pradesh
- S. Narayan and Sons, New Delhi
- S.K and Company, Budaun, Uttar Pradesh
- Sagar Pulp and Paper Mills Limited, Haridwar, Uttarakhand
- Sai Graphics, Jabalpur, Madhya Pradesh

- Sainsons Paper Industries Private Limited, Pehowa, Kurukshetra
- Saint Gobain India Private Limited, Mumbai, Maharashtra
- Samanya Nirvachan Karyalaya Collector, Rajgarh, Madhya Pradesh
- Sandeep Paper Mills Private Limited, Noida, Uttar Pradesh
- Sanjay Publicity and Stationers, Kasganj, Uttar Pradesh
- Satia Industries Limited, Muktsar, Punjab
- School Shiksha Evam Rajya Pariyojna Nideshak Karyalaya, Lucknow, Uttar Pradesh
- Security Printing Press, Hyderabad, Andhra Pradesh
- Seshasayee Paper and Boards Limited, Erode, Tamil Nadu
- Shakti Krafts and Tissues Limited, Muzaffarnagar, Uttar Pradesh
- Shastri Handmade Paper Industries, Jalaun, Uttar Pradesh
- Shiv Enterprises, Aligarh, Uttar Pradesh
- Shiva Handmade Papers, Haridwar, Uttarakhand
- Shivam Offset, Kolhapur, Maharashtra
- Shree Bhageshwari Papers Limited, Muzaffarnagar, Uttar Pradesh
- Shree Kela Jee Books Private Limited, Agra, Uttar Pradesh
- Shree Sharda Press, Bhavnagar, Gujarat
- Shree Somnath Offset, Bhavnagar, Gujarat
- Shree Vrindavan Enterprises, Noida, Uttar Pradesh
- Shreyans Industries Limited, Ahmedgarh, Punjab
- Shri Prema Enterprises, Noida, Uttar Pradesh
- Shri Ram Enterprises, Noida, Uttar Pradesh
- Shri Sidhballi Paper Mills Private Limited, Muzaffarnagar, Uttar Pradesh
- Shri Swaroop Enterprises, Noida, Uttar Pradesh
- Shriram Institute of Industrial Research, New Delhi
- Shuklambara Papers Private Limited, Bajpur, Uttarakhand
- Silverton Papers Limited, Muzaffarnagar, Uttar Pradesh
- Silverton Pulp and Papers Private Limited, Muzaffarnagar, Uttar Pradesh
- Singhal Agencies, Lucknow, Uttar Pradesh
- Skylark Printers and Publishers Private Limited, Mathura, Uttar Pradesh
- SMC Foods Limited, Saharanpur, Uttar Pradesh
- Sprout Private Limited, Kannur, Kerala

- Sree Godavari Krafts Papers Limited, West Godavari, Andhra Pradesh
- SS Enterprises, Dhar, Madhya Pradesh
- Star Kraft Papers Private Limited, Meerut, Uttar Pradesh
- Star Paper Mills Limited, Saharanpur, Uttar Pradesh
- Starwork Papers Private Limited, Meerut, Uttar Pradesh
- State Health Society Bihar, Patna, Bihar
- State Society of Ultra Poor and Social Welfare, Patna, Bihar
- Suchna Avam Jan Sampark Vibhag, Patna, Bihar
- Suchna Evam Jan Sampark Vibhag, Lucknow, Uttar Pradesh
- Sumukha Hitech Products Industry, Sedarapet, Puducherry
- Suparshva Swabs (I), Ghazibad, Uttar Pradesh
- Surat Municipal Corporation, Surat, Gujarat
- Surya Offset and Security Printers, Ahmedabad, Gujarat
- Suryansh Pulp and Board Private Limited, Kurukshetra, Haryana
- Swapna Printing Works Private Limited, Kolkatta, West Bengal
- T.T.D Press, Tirupati, Andhra Pradesh
- Tamilnadu News Print and Papers Limited, Trichy, Tamil Nadu
- Tamilnadu Newsprint and Papers Limited, Kagithapuram, Tamil Nadu
- Tehri Pulp and Paper Limited, Muzaffarnagar, Uttar Pradesh
- Tetra Pak India Private Limited, Pune, Maharashtra
- The Art Gallery, Patna, Bihar
- The Assam State Textbook Production and Publication Corporation Limited, Guwahati, Assam
- The Institute of Chartered Accountants of India, Noida, Uttar Pradesh
- The Sandesh Limited, Ahmedabad, Gujarat
- The Sirpur Paper Mills Limited, Kaghaznagar Adilabad, Telangana
- The Tribune Trust, Chandigarh
- The West Coast Paper Mills Limited, Dandeli, Karnataka
- Tirupati Stationery Private Limited, Kanpur, Uttar Pradesh
- Tradecom International Private Limited, New Delhi
- Trident Limited, Ludhiana, Punjab
- U.P. Pollution Control Board, Saharanpur, Uttar Pradesh
- Unilever Industries Private Limited, Mumbai, Maharashtra

- United Nations Industrial Development Organization, New Delhi
- Uttar Pradesh New and Renewable Energy Development, Lucknow, Uttar Pradesh
- Valmet Technologies Private Limited, Chennai, Tamil Nadu
- Veekay Industries Private Limited, Noida, Uttar Pradesh
- Veer Narmad South Gujarat University, Surat, Gujarat
- Vikram University, Ujjain, Madhya Pradesh
- Visaka Industries Limited, Nalgonda District, Telangana
- Vishwa Pariwar, Raipur, Chhatisgarh
- VLS Fibre, Chennai, Tamil Nadu
- Voith Paper Technology India Private Limited, Kolkatta, West Bengal
- West Coast Paper Mills Limited, Dandeli, Karnataka
- Whale Stationery Products Limited, Dehradun, Uttarakhand
- Work Station Systems Private Limited, Bhopal, Madhya Pradesh
- Worthwell Papers Private Limited, Faridabad, Haryana
- Yashwant Enterprises, Bijnor, Uttar Pradesh
- Yogesh Solutions, Raipur, Chattisgarh
- Yojna Avam Vikas Vibhag, Patna, Bihar
- Zila Gramin Vikas Abhikaran, Patna, Bihar
- Zila Jan Sampark Karyalaya, Araria, Bihar
- Zila Jan sampark Karyalaya, Buxar, Bihar
- Zila Jan Sampark Karyalaya, Darbhanga, Bihar
- Zila Jan Sampark Karyalaya, Sekhpura, Bihar
- Zila Jan Sampark Padadhikari, Betiya, Bihar
- Zila Jan Sampark Padadhikari, Bhagalpur, Bihar
- Zila Jan Sampark Padadhikari, Chajju Bagh, Bihar
- Zila Jan Sampark Padadhikari, Jehanabad, Bihar
- Zila Jan Sampark padadhikari, Lakhisarai, Bihar
- Zila Jan Sampark Padadhikari, Purnea, Bihar
- Zila Jan Sampark Padadhikari, Sitamarhi, Bihar
- Zila Jan Sampark Padadhikari, Supol, Bihar
- Zila Jan Sampark Padhadhikari, Madhubani, Bihar
- Zila Pariyojna Adhikari, Bijnor, Uttar Pradesh

- Zila Suchna Evam Jan Sampark Karyalaya, Katihar, Bihar
- Zila Suchna Evam Jan Sampark Karyalaya, Khagaria, Bihar
- Zila Suchna Evam Jan Sampark Karyalaya, Saharsa, Bihar
- Zila VidyalayNirikshak, Meerut, Uttar Pradesh

Consultancy Services

Following consultancy were provided during the year 2022-2023

Raw Material, Pulping and Bleaching Division

- Evaluation of Whole Hemp and Hurds for Producing Various Grade of Pulp Products- OG Hemp Company, Kolkata
- Evaluation of sisal fibre- Innovate Pulp and paper, Noida
- Production of dissolving grade pulp from banana- Grasim Industries Limited, Mumbai
- Optimization Study of bamboo for kraft Paper Making- Eco Tech Papers, Guwahati, Assam
- Evaluation of Ear Buds sample for Pulp and Paper making- Khanna Paper mill Limited, Amritsar, Punjab
- Utilization of rice husk along with agro residues for production of unbleached pulps for various products- Oryza Fibers Private Limited, Ahmadabad
- Optimization study of soda pulp from rice straw- oryza fibers Private Limited, Ahmadabad

Pulp / Chemical Evaluation, Waste Paper Recycling and Papermaking

Evaluation of Pulp for various Fibre, Optical and Physical Strength Properties

Under the above activity 79 samples were evaluated and services has been provided to the following companies -

- ABS Pulps, Namakkal, Tamil Nadu
- ACFA Industrial Company For Industry , Saudi Arabia
- Brown Overseas Private Limited, Andheri East, Mumbai
- C2C Consultancy, Tiruppur, Tamil Nadu
- Cellpap Mercantile Private Limited, Andheri, Maharashtra
- Century Pulp & Paper, Nainital, Uttarakhand
- Durga Handmade Papers, Haridwar, Uttarakhand

- Eco Tech Papers, Guwahati, Assam
- Ekman Pulp & Paper Private Limited, Bandra West, Maharashtra
- Everest Industries Limited, Bhagwanpur, Uttarakhand
- Everest Industries Limited, Bhagwanpur, Uttarakhand
- Everest Industries Limited, Coimbatore, Tamilnadu
- Everest Industries Limited, Nashik, Maharashtra
- Gulshan Polyols Limited, Paonta Sahib Distt. Sirmour, Himachal Pradesh
- Jolly Board Ltd, Aurangabad, Maharashtra
- Kuantum Papers Limited, Hoshiarpur, Punjab
- M/S Shreyans Industries Limited, Distt. S.B.S. Nagar, Punjab
- Naini Papers, Kashipur, Uttarakhand
- Padcare Labs Private Limited, Pune, Maharashtra
- Rhino Roofing Product Limited, Srilanka
- Rintech Chemicals Private Limited, Distt. Bijnor, Uttar Pradesh
- Shiva Handmade Papers, Haridwar, Uttarakhand
- Tamil Nadu News Print and Papers Limited, Karur, Tamil Nadu
- Tradecom International Private Limited, New Delhi
- Trident Limited (Tpec), Barnala, Punjab
- V. L. S. Fibre, Chennai, Tamilnadu
- Visaka Industries Limited, Miryalaguda, Telangana
- Voith Paper Technology (India) Private Limited, Kolkata, West Bengal

Evaluation of Wet End Chemicals

Under the above activity 18 samples were evaluated and services has been provided to the following Companies -

- Andhra Paper Limited, Andhra Pradesh
- Khyati Chemicals Private Limited (Unit-1), Ahmedabad, Gujarat.
- Richards Chemicals And Electricals Private Limited, Nagpur, Maharashtra
- Rintech Chemicals Private Limited, Distt. Bijnor, Uttar Pradesh
- Ruchira Papers Limited, Sirmour, Himachal Pradesh
- M/S Shreyans Industries Limited, Distt. S.B.S. Nagar, Punjab

Technical Evaluation Imported Wastepaper Sample

Under the above activity 3 samples were evaluated and services has been provided to the Office of the Assistance Commissioner of Customs, ICD Nhava Sheva, Tal-Uran, Raigad, Maharashtra.

ZLD Feasibility Evaluation

- Hariom Industries Limited, Kanpur, Uttar Pradesh
- Disha Industries Private Limited, Muzaffarnagar, Uttar Pradesh
- New Bonnanza Industries Limited, Muzafarnagar, Uttar Pradesh
- Nikita Papers Limited, Shamli, Muzaffarnagar, Uttar Pradesh
- Shuklambara Papers Limited Bazpur, Uttarakhand

ETP Adequacy Assessment

- Katyayini Tissue Private Limited, Uttarakhand
- Star Paper Mills Limited, Saharanpur, Uttarakhand

Color Removal Studies

- Andhra Papers Limited, Rajahmundry, Andhra Pradesh

MEETINGS ORGANIZED / ATTENDED

The following meetings have been organized and attended by CPPRI personnel during 2022-2023.

Council of Association (CoA)

The 46th meeting of the Council of Association (CoA) of CPPRI was held on July 12th, 2022 at Udhog Bhawan, New Delhi under the Chairmanship of Shri Anurag Jain, IAS, Secretary (DPIIT), Ministry of Commerce and Industry, Government of India and President of CoA, CPPRI in hybrid mode. The meeting was attended by members of CoA and Dr. M. K. Gupta, Director CPPRI.

The 47th meeting of the Council of Association (CoA) of CPPRI was held on February 23, 2023 at Vanija Bhawan, New Delhi under the Chairmanship of Shri Anurag Jain, IAS, Secretary (DPIIT), Ministry of Commerce and Industry, Government of India and President of CoA, CPPRI in hybrid mode. Dr. M.K. Gupta, Director, CPPRI welcomed the chairman and members of the Council of the Association. The council placed on record appreciation to outgoing members and welcome the incoming members. The meeting was attended by members of CoA and Dr. M. K. Gupta, Director CPPRI and senior scientists Dr. K. Singh, Dr. Sanjay Tyagi and Sh. Alok Goel.

Meeting of the Development Council for Pulp, Paper and Allied Industries (DCPPAI)

The first meeting of reconstituted Development Council for Pulp, Paper and Allied Industries (DCPPAI) was held under Chairmanship of Shri T. Balakumar, Managing Director, Subham Paper Limited on February 9, 2023. The meeting was attended by Shri Sanjiv, IRS, Joint Secretary, DPIIT, Ministry of Commerce & Industry, Shri Ashish Bhargava, Deputy Secretary DPIIT, Ministry of Commerce and Industry and other members of DCPPAI. Dr. M.K. Gupta, Director CPPRI and Member Secretary DCPPAI presented the Agenda of the Meeting. Various issues related to Pulp and Paper Industry were taken up for discussion during the meeting.

Meeting of the Research Steering Committee of Development Council for Pulp, Paper and Allied Industries (RSC-DCPPAI)

The first meeting of reconstituted Research Steering Committee of Development Council for Pulp, Paper and Allied Industries (RSC-DCPPAI) was held on February 20, 2023. The meeting was presided by Shri Ashish Bhargava, Deputy Secretary, DPIIT. Dr. M. K. Gupta, Director CPPRI and Member Secretary RSC-DCPPAI presented the Agenda of the Meeting. The Committee reviewed

the progress of ongoing projects, reconstituted the technical subcommittee for review of on going projects and consideration of new project proposals. The meeting was attended by members of RSC committee and senior scientists of CPPRI.

Meeting of Reconstituted Technical Sub-Committee of Research Steering Committee of Development Council for Pulp, Paper & Allied Industries (RSC-DCPPAI) held on March 1, 2023 via Video Conference

The first meeting of Reconstituted Technical Sub-Committee of Research Steering Committee of Development Council for Pulp, Paper & Allied Industries (RSC-DCPPAI) was held on March 1, 2023 via video conference under the Chairmanship of Shri Neehar Agarwal, COO, BGPPL & CEO Bilt Group, Gurugram. The other members of the Technical Subcommittee are Dr Dharam Dutt, Head IIT– Roorkee Saharanpur Campus, Dr Vivek Kumar, IIT Delhi, Dr. C.S Kashikar, COO Orient Paper & Industries Limited, Amlai, Dr. Suresh Babu, Assistant Vice President, Production, Khanna Paper Mills Limited, Dr. A.K Naithani, Sr. GM (R&D and QC) Shreyans Industries Limited, Ahmedgarh and Dr. Kawaljeet Singh, CPPRI. The technical subcommittee reviewed the progress of on going projects as well as the new project proposals submitted for consideration.

Other Meetings Organized

Half yearly review meeting of Town Official Language Implementation Committee (Narakas) Saharanpur

Half yearly meeting of member offices of Narakas, Saharanpur was organized at CPPRI on August 31, 2022. Representatives of member offices and institutions of Central Government located in Saharanpur district participated in this meeting and the compliance of official language in these offices was reviewed.



Half yearly review meeting of Narakas at CPPRI

Meetings attended

- A Meeting on 6th Round of Annual Inspection of GPI units in Uttarakhand organized by Central Pollution Control Board at Uttarakhand Pollution Control Board, Dehradun, April 13, 2022- Dr. Nitin Endlay and Mr. Mohd Salim.



Meeting of CPCB at Delhi

- Online 27th Meeting of CHD 13 Water Quality for Industrial Purposes organized by Bureau of Indian Standards on April 19, 2022- Dr. Nitin Endlay
- Online meeting of officials of National Jute Board, CPPRI and ABSTCL Mumbai, on May 30, 2022- Dr. Priti S. Lal, Dr. Arvind Sharma, Dr. Kawaljeet Singh and Dr. M. K. Gupta.
- A meeting with Dr. Ashok Kumar, FRI, Dehradun under PBS project” Centre of Excellence on May 8, 2022 - Dr. Priti S. Lal and Dr. Arvind Sharma
- IPPTA executive committee meeting on May 10th, 2022 at Greater Noida - Dr. M. K. Gupta and Smt. Anuradha V Janbade
- Consultative Meeting with Pulp and Paper Mills of Kashipur Cluster on Charter for Water Recycling and Pollution Prevention in Pulp & Paper Industries of Ganga River Basin - Edition 3.0 , Kashipur, May 26, 2022 –Dr. Nitin Endlay & Mr Satya Dev Negi

- Board of Directors meeting at Satia Paper Mills Limited on May 27, 2022- Dr. Priti S. Lal
- Meeting of Nodal Institutes regarding preparation of sector specific reports organized by Central Pollution Control Board on July 11, 2022 - Dr. Nitin Endlay
- Visited BIS, Manak Bhawan, New Delhi for attending meeting of CHD-15 on July 14-15, 2022-Dr. M.K.Gupta and Dr. Sanjay Tyagi
- Meeting on Formulation of Charter 3.0, organized by Central Pollution Control Board, Delhi at IIT Delhi on July 16, 2022 – Dr. Nitin Endlay
- Online Meeting organized by CPCB to discuss the presentations from technical institutes based on findings of annual GPI inspections 2021, July 18, 2022 – Dr. Nitin Endlay
- Meeting with CPCB Officials on Sector Specific Report Preparation for Pulp & Paper sector, CPPRI, July 21, 2022 - Dr. Endley
- Meeting at Bureau of Energy Efficiency as on September 12, 2023 – Dr. M.K.Gupta and Dr. Sanjay Tyagi
- 27th Online Meeting of CHD 13 Water Quality for Industrial Purposes organized by Bureau of Indian Standards on September 15, 2022 - Dr. Nitin Endlay
- Meeting with Official from National Jute Board, Kolkata September 27, 2022- Dr. Priti S. Lal



Dr. Priti S. Lal attending meeting at NJB, Kolkata

- Meeting of Advisory Board of University of Petroleum & Energy Studies, October 17, 2022, Dehradun - Dr. Nitin Endlay
- Online meeting regarding Formulation of Action Plan of 145 identified Grossly Polluting Industries (GPIs), October 28, 2022 – Dr. M.K Gupta, Dr. Nitin Endlay and Sh. Mohd Salim
- IPPTA EC meeting on November 16, 2022 at Vapi, Gujrat-Dr. M. K. Gupta and Smt. Anuradha V Janbade
- Meeting at Ministry of Textile, Government of India with Dr. Prajakta Verma, Joint secretary (fibre) at Ministry of Textile, along with Dr. M. Dutta Joint director NJB, Dr. Madan Singh Group Lead and Scientist ABSTCL Mumbai on 18th November 2022 - Dr. Priti S. Lal
- Online meeting organized by CPCB to draft Model Consent to Operate on December 8, 2022- Dr. Nitin Endlay
- Online meeting of CPCB's Peer and Core Expert Committee for Development of Environmental Standards, December 9, 2022 - Dr. Nitin Endlay
- Online meeting of CPCB's Peer and Core Expert Committee for Development of Environmental Standards, Feb 27, 2023 – Dr. M.K. Gupta & Dr. Nitin Endlay
- Meeting at Bureau of Energy Efficiency, New Delhi regarding SWG on February 27, 2023– Dr. M. K. Gupta, Dr. Sanjay Tyagi and Shri Alok Kumar Goel
- Online Meeting of CPPRI, National Productivity Council to discuss the Water Audit Study and Methodology to be taken up at Khanna Paper Mills Limited, March 10, 2023 – Dr. M.K. Gupta, Dr. Nitin Endlay & Mr. Mohd Salim
- Online 28th Meeting of CHD 13 Water Quality For Industrial Purposes organized by Bureau of Indian Standards on March 13, 2023.- Dr. Nitin Endlay
- Online Meeting of CPCB regarding Annual Inspection of Grossly Polluting Industries (GPIs) with nodal officers of technical institutes and SPCBs held on weekly and attended by Dr. Nitin Endlay and Mr. Mohd Salim
- Meeting at CRDT, IIT Delhi with Dr. Vivek Kumar from March 13-14, 2023 for discussion on a joint project.- Smt. Anuradha V Janbade and Dr. Nitin Kumar
- IPPTA EC meeting on March 16, 2023 at Hyderabad- Dr. M. K. Gupta and Smt. Anuradha V Janbade

- Meeting at IICT, Hyderabad regarding potential collaboration projects between CPPRI and IICT on March 16, 2023- Dr. M.K. Gupta, Dr. A. K Dixit and Smt. Anuradha V Janbade
- Meeting at DPIIT, New Delhi on March 28, 2023 – Dr. Sanjay Tyagi and Shri Alok Kumar Goel

CELEBRATION OF NATIONAL DAYS AND OTHER IMPORTANT DAYS AT CPPRI

Independence Day

CPPRI celebrated the Independence Day on August 15, 2022 with usual fanfare and gaiety. After the guard of honour from CPPRI Security Staff, Dr. M. K. Gupta Director, CPPRI hoisted the National Flag followed by singing of national anthem. Director, CPPRI addressed the staff and their family members, reminisced the sacrifices of our freedom fighters, highlighted the activities and achievements of CPPRI and unveiled the future plans for growth of CPPRI.

Republic Day

CPPRI celebrated the Republic Day on January 26, 2023 with usual fanfare and gaiety. After the guard of honour from CPPRI Security Staff, the Director Dr. M. K. Gupta, unfurled the National Flag followed by singing of National Anthem. Director, CPPRI addressed the staff and their family members, reminisced the contribution of our National Leaders in progress and development of our nation and highlighted the activities and achievements of CPPRI.

Celebration of International Yoga day at CPPRI

The International yoga day was celebrated at CPPRI premises on June 21, 2022 under the guidance of Dr. Sanjay Tyagi, Head Paper testing and Administration. The Scientists and other staff of CPPRI participated in the programme with their families.



Glimpses of International Yoga day

Run for Unity / Rashtriya Ekta Diwas at CPPRI

As per directives of Government of India, Run for Unity was organized by CPPRI on October 31, 2022 to mark the Birth Anniversary of Sardar Vallabh Bhai Patel, the first Deputy Prime Minister and first Home Minister of Independent India. The day is also observed as Rashtriya Ekta Diwas. Before flagging off the run, floral tributes were offered by Scientists and staff of CPPRI on the picture of Sardar Patel and his contribution in Indian Independence and building a modern and unified India was remembered. Further, need for Unity for Growth, Development and Progress our Country was also emphasized. CPPRI Scientists and staff, JRF's, SRF's, Research Scholars and students of M.Sc. (Cellulose and Paper Technology) as well as students from various schools participated in the run with enthusiasm. Special Caps and T Shirts with Run for Unity Message and CPPRI logo were distributed to all participants. After the run refreshment were provided to all the participants.



Glimpse of Run for Unity / Rashtriya Ekta Diwas

Celebration of Constitution Day

As per directives of the Ministry of Social Justice and Empowerment, Constitution Day also known as Samvidhan Divas, was celebrated in CPPRI on November 26, 2022 to commemorate the 73rd anniversary of adoption of the Constitution of India and to spread awareness of Citizen Duties including Fundamental Duties enshrined in the Constitution of India. As per directives the preamble of the constitution was read by CPPRI staff in a programme organized on Constitution Day.



Glimpses of Celebration of Constitution Day

Vishwakarma Puja

The Vishwakarma puja was performed at CPPRI Engineering Department on September 17, 2022. The director CPPRI and staff members performed Vishwakarma Puja.



Glimpses of Celebration of Vishwakarma Puja

Celebration of Paper Day

CPPRI celebrated Paper Day on August 1, 2022. The day was joined by Sh. V.K. Mohindru former director CPPRI as chief guest and by Mrs. Neena Dhingra social worker as guest of honour.



Glimpse of Paper Day

Celebration of Saraswati Puja

The Saraswati Puja was celebrated at CPPRI on January 26, 2023. Director CPPRI and staff members performed Sarswati Puja



Glimpse of Sarawati Puja

WORKSHOP/TRAINING PROGRAMME ORGANISED

CPPRI organized following training programmes/workshops during the year 2022-2023:

- CPPRI and Indian Institute of Technology Delhi organized joint training program on 'Paper and Paper Board for Packaging of Liquid Items-Trends, Prospects and Way Forward' on June 24, 2022.
- Quality management cell of CPPRI organized a 2-day Internal Auditor Training course (based on ISO 9001:2015 and ISO 19011:2018 standards) at CPPRI during December 13 – 14, 2022 for CPPRI scientific and technical staff. Dr. A. K. Dixit, Quality Manager (QM) and Sh. Kumar Anupam, Deputy Quality Manager (DQM) coordinated the program. Now CPPRI has 13 certified ISO 19011:2018 internal auditors.



CPPRI officials during 2-day Internal Auditor Training Course

- A four days training program on "Management System Awareness and Internal Audit (As per ISO/IEC 17025:2017 and NABL requirement)" sponsored by Central Pollution Control Board, New Delhi was organized at CPPRI during March 22-25, 2023. The training was imparted to 20 scientists and technical officers from various regional offices of Central Pollution Control Board (CPCB) / State Pollution Control Board (SPCB) and other industry and research institutes. The program was coordinated by quality management cell of

CPPRI, QM, DQM and chairman MRC. All participants were awarded certificates after successful completion of training program.



Participants with CPPRI officials and faculty during Training Program

- Project dissertation works for 18 graduate and post-graduate students from Graphic era Uni., Dehradun, (UK); Gurukul Kangdi, Haridwar, (UK); Shobhit University, Saharanpur were completed in the area of "Biotechnology and its application in Pulp and Paper industry".

PARTICIPATION IN SEMINAR, WORKSHOP AND TRAINING PROGRAMME

CPPRI scientists attended following Webinars, Conferences, Training Programme and Workshops during the period 2022-23 to update the knowledge about the latest developments on various aspects of pulp and paper technology:

- Dr. Nitin Endlay and Mr. Mohd Salim attended Online Training Programme on ISO/IEC 17025:2017-Risk Management Requirements and Implementation in Laboratories, organized by Training and Capacity Building Cell (TCB) on April 4, 2022.
- Dr. M.K. Gupta, Director along with other scientists participated in Paperex 2022 exhibition held at Greater Noida from May 10-13, 2022. CPPRI displayed information related to the facilities, expertise achievements and project activities.



Glimpses of Paperex 2022

- Dr. Ashwani Kumar Dixit, Quality Manager along with Shri. Kumar Anupam Dy. Quality Manager attended QualmaCon 2022 "Conclave for Personnel responsible for the Quality Management System" organized by NABL on 9th June 2022 at Stein Auditorium, Indian Habitat Centre, New Delhi.



Dr. A. K. Dixit and Shri Kumar Anupam at Qualmacon 2022

- Dr. M.K. Gupta, Dr. A.K. Dixit, Smt. Anuradha V Janbade and Dr Jitender Dhiman participated one day workshop on “Black liquor treatment” sponsored by UNIDO on June 30, 2022 at Hotel Palasa, Muzaffar Nagar, Uttar Pradesh.
- CPPRI participated in the Mega Exhibition "Rise in Uttarakhand 2022" organized at Dehradun from July 7-8, 2022. The Institute showcased its expertise, facilities and achievements in the exhibition. The exhibition was inaugurated by Shri Pushkar Singh Dhami, Honorable Chief Minister of Uttarakhand. CPPRI was represented by Dr M.K.Gupta, Director CPPRI, Dr. Nitin Endlay, Shri. Satya Dev Negi, Shri. Kumar Anupam and Smt. Sarita Sharma.





Glimpses of CPPRI participation in Rising Uttarakhand Mega Exhibition

- Smt. Anuradha V Janbade and Dr. Jitender Dhiman attended three days training at Shimadzu Application team for Training at Shimadzu Delhi Lab regarding Gas Chromatograph (GC) handling on July 20-22, 2022.
- Dr. Priti S. Lal and Dr. Arvind Kumar Sharma attended two days IPPTA workshop on “Bench marking in pulping, bleaching and recovery operation in India vs. global standards organized by IPPTA in CPPRI Campus on July 25-27, 2022.
- Dr. Nitin Endlay and Sh. Alok Kumar Goel attended Four day residential training programme on “Low Carbon Pathways for Industrial Sectors”, organized by Centre for Science and Environment, New Delhi from August, 23-26, 2022 at Anil Agarwal Environment Training Institute (AAETI), Alwar, Rajasthan.



Dr. Nitin Endlay during a training programme

- Dr. M.K. Gupta, Smt. Anuradha V Janbade, Dr. Shubhang Bhardwaj and Dr. Jitender Dhiman attended two day International Conference on “Responsible Packaging optimal design, innovation materials and sustainable Technology” at Hotel Lalit, New Delhi, September 9-10, 2022.
- Dr. Nitin Endlay and Mohd Salim attended online one day Training on "Measurement of Uncertainty and Decision Rule ISO IEC 17025 : 2017 for Basic Parameters in Water Testing" organized by Green Economy Initiatives Private Limited, Zirakpur, Punjab, September 17, 2022.
- Smt. Anuradha V Janbade and Dr. Jitender Dhiman attended two day Workshop on “Management Development program ESG and Sustainability-ESG Management for business sustainability and operational excellence” New Delhi, November 18-19, 2022.
- Smt. Anuradha V Janbade and Dr Jitender Dhiman attended one day workshop on “Food grade packaging in India” New Delhi, December 23, 2022.
- Dr. Arvind Kumar Sharma attended two days workshop “Agro Forestry and Farm Forestry for Sustainable and and Ecosystem Management” conducted by FRI, Dehradun from January 13-14, 2023.

- Dr. Jitender Dhiman, Km. Arti Saini and Km. Saher Zaidi attended three day training at CPPRI of High Pressure Ion Chromatograph (HPIC) on March 27-29, 2023.
- Dr. M.K. Gupta, Dr. A.K. Dixit, Dr. Nitin Endlay and Mr. Mohd Salim, Mr. Kumar Anupam and Jitendra Dhiman of CPPRI attended one day Workshop on "Productivity Enhancement Measures, Innovation and Odor Control Technology in Indian Paper Industry" organized by UNIDO Muzaffarnagar on March 28, 2023.



Dr. NitinEndlay @ UNIDO Workshop

PAPERS PRESENTED AND LECTURES DELIVERED

- Smt. Anuradha V Janbade delivered two lectures on “Overview of pulp and paper industry and basic process and equipments” at CPPRI on April 20, 2022 to two year diploma students of Yash Pakka.
- Dr. Nitin Endlay presented paper titled “Achieving of Zero Liquid Discharge through Biomethanation in a RCF Based Kraft Paper Mill” at PAPEREX 15th International Technical Conference on Pulp, Paper and Allied Industries, Greater Noida, May 10-12, 2022.
- Dr. Nitin Endlay presented paper titled “Water Conservation through in house Strategies in an Agro Based Pulp and Paper Mill”’s at PAPEREX 15th International Technical Conference on Pulp, Paper and Allied Industries, Greater Noida, May 10-12, 2022,
- Smt. Anuradha V Janbade delivered a presentation on “Nano and Bacterial cellulose for enhancing barrier properties of paper” at IITD during CPPRI-IITD joint training program on paper and paper board for packaging of liquid items on June 24, 2022.
- Dr. Nitin Endlay delivered presentation on “Charter for Water Recycling and Pollution Prevention in Pulp and Paper Industries in Ganga River Basin : Edition 3.0” at Pollution Control Board, Delhi, June 26, 2022.



CPPRI Scientists at Meeting with Pulp and Paper Mills of Kashipur Cluster regarding Charter 3.0

- Dr. Nitin Endlay delivered presentation on “Pilot Scale trials of Membrane Filtration in Pulp and Paper Industries” at Consultative Workshop on Membrane Filtration in Pulp and Paper Industries June 30, 2022, Muzaffarnagar
- Dr. Nitin Endlay delivered presentation on “Charter for Water Recycling and Pollution Prevention in Pulp and Paper Industries in Ganga River Basin : Edition 3.0” at Meeting with Pulp and Paper Mills in Muzaffarnagar Cluster in connection with drafting of Charter 3.0, Organized by Central Pollution Control Board, Delhi, July 16, 2022
- Dr. Nitin Endlay delivered presentation on “Monitoring of Grossly Polluting Industries in Ganga and Yamuna River Basin” at Online meeting on CPCB sponsored project – Monitoring of Grossly Polluting Industries in Ganga and Yamuna River Basin July 18, 2022
- Dr. A. K. Dixit presented paper titled “Effects of Non-Process Elements and dead load in Chemical Recovery Operation” in the Benchmarking in Pulping, Bleaching and Recovery operations in India vs Global standard organized by IPPTA during 25-27 July, 2022 at Saharanpur
- Dr. Priti Shivhare Lal delivered Paper on “Effect of Process Variables on Pulp Yield of Indigenous Raw Materials” at IPPTA workshop on Benchmarking in Pulping, Bleaching and Recovery Operation in India Vs Global Standard” held at Saharanpur in July 25-27, 2022.
- Smt. Anuradha V Janbade delivered presentation on “Opportunities for odour control in paper making” on August 08, 2022 during UNIDO workshop organized at Kolkata
- Dr. Nitin Endlay delivered presentation on “Application of Membrane Filtration Technology to Reduce Fresh Water Consumption and Pollution Load in Paper Mill Effluents” at One day workshop on Productivity Enhancement Measures, Innovation and Odor Control Technology in Indian Paper Industry organized by UNIDO at Vapi on August 19, 2022
- Smt. Anuradha V Janbade delivered presentation on “Opportunities for odour control in paper making” on August 19, 2022 during UNIDO workshop held at Vapi, Gujarat
- Dr. Nitin Endlay delivered presentation on “Indian Pulp and Paper Industry – Introduction, Myths and Reality, Environmental Status, Challenges” at Training Programme on “Low Carbon Pathways for Industrial Sectors” organized by Centre for Science and Environment, New Delhi from August 23-26, 2022 at Anil Agarwal Environment Training Institute (AAETI), Rajasthan
- Dr. M. K. Gupta and Dr. Nitin Endlay delivered presentation on “Water and Waste Water

Management in Indian Paper Industry” at 7th CII National Conference on Water Use Efficiency in Pulp and Paper Sector” August 31, 2022

- Dr. Nitin Endlay delivered presentation on “Application of Membrane Filtration Technology to Reduce Fresh Water Consumption and Pollution Load in Paper Mill Effluents” at one day workshop on Productivity Enhancement Measures, Innovation and Odor Control Technology in Indian Paper Industry organized by UNIDO at Kolkata September 8, 2022.
- Dr. Sanjay Tyagi, delivered lecture at Technical learning session on “Paper, Ink and Printing” at Learning and development centre, BRBNMPL from November, 06-08, 2022.
- Dr. M.K. Gupta was invited as session chairman and Mrs. Anuradha V Janbade was invited to delivered invited guest lecture on Innovation in food packaging applications during two days International Conference on "Respackaging 22" held at Hotel Lalit, New Delhi from September 9- 10, 2022.
- Dr. Nitin Endlay presented paper on “Environmental Status of Pulp and Paper Industries in River Ganga Basin” at 6th International Technical Conference on Pulp, Paper and Allied Industries, Chennai, November 23- 24, 2022.
- Dr. Priti Shivhare Lal delivered lecture on “Paper on Technology Upgradation for Handmade Units for Pulping of Annual crops” at consultative workshop on Technology up-gradation in Handmade paper sector at MGIRI Wardha (through VC) on December 18, 2022.



CPPRI Scientist attending IPPTA seminar

- Dr. Nitin Endlay delivered presentation on “Monitoring of Grossly Polluting Industries (GPIs) in Ganga and Yamuna River Basin Sector: Pulp and Paper” at CPCB Meeting of Nodal Officers of Technical Institutes for Outcomes of 2021-22 Cycle of Monitoring of Grossly Polluting Industries.
- Mr. Mohd Salim presented paper on “Statistical validation of makeup water requirement in a recycled fibre based kraft paper mill operating on zero liquid discharge” at 58th IPPTA Annual General Meeting and Seminar, Novotel Convention Centre, Hyderabad, March 17-18, 2023.



Mr. Mohd Salim @ IPPTA Conference

- Smt. Anuradha V Janbade delivered two lectures on “Biobleaching and another on Stickies and Pitch control for optimum machine runnability” for training organized by CPPRI for Anmol Polymers on July 23, 2022.
- Dr. Priti S. Lal delivered two lectures on “Fundamentals of Pulping and Bleaching” for trainees during training organized by CPPRI for Anmol Polymers on July 23, 2022.
- Dr. Nitin Endlay presented paper on “Application of Alternate Energy through Generation, Purification and Utilization of Biogas from Pulp and Paper Mill Effluent” at IPPTA Conference November 17-18, 2022 at Vapi, Gujarat.

REPRESENTATION IN EXTERNAL COMMITTEES

Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India

- Member, Environment Appraisal Committee (EAC) Industry, Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India - Dr. M.K. Gupta

Development Council for Pulp, Paper and Allied Industries

- Member-Secretary, Development Council for Pulp, Paper and Allied Industries - Dr. M.K. Gupta

Research Steering Committee of Development Council for Pulp, Paper and Allied Industries

- Member-Secretary, Research Steering Committee of Development Council for Pulp, Paper and Allied Industries (Formerly Cess Committee) - Dr. M.K. Gupta

Bureau of Indian Standards (BIS), New Delhi

- Chairman, BIS, CHD Paper and Board Sectional Committee, CHD - Dr. Manoj Kumar Gupta
- Convenor, Alert Panel, BIS Paper and Products Sectional Committee, CHD – 15 Dr. M.K. Gupta and Dr. Sanjay Tyagi
- Technical Member, BIS Paper and Products Sectional Committee, CHD – 15 – Dr. Sanjay Tyagi, and Sh. Alok Kumar Goel
- Member, BIS Sectional Committee, Paper Board and its Product, CHD 16- Dr. Sanjay Tyagi
- Member of various panels constituted under CHD 15 and CHD 16 sectional committees of BIS – Dr. Sanjay Tyagi
- Member, Publication and Graphic Technology Sectional Committee, MSD 06 – Dr. Sanjay Tyagi
- Principal Member of Bureau of Indian Standards (BIS) Committee: Water Quality for Industrial Purposes Sectional Committee (CHD-13) – Dr. Nitin Endlay

- Chairman Alert Panel of BIS CHD 13:P2 Water Treatment Chemicals of Water Quality for Industrial Purposes – Dr. Nitin Endlay

Satia Industries Limited

- Independent Director in Board of Directors of Satia Industries Limited-Dr. Priti S. Lal

NITI Ayog

- Dr. Priti Shivhare Lal represented CPPRI as Expert in NITI Ayog nominated by Director in Preparation of Techno commercial report on National Bamboo Development mission and contributed chapter on Bamboo for Pulp, Paper and Fibre, November 2022.

Others

- Life Member of Indian Association for Air Pollution Control , New Delhi – Dr. M.K. Gupta & Dr Nitin Endlay
- Life Member of Indian Pulp and Paper Technical Association (IPPTA) – Dr. M.K. Gupta, Dr Priti Shivhare Lal and Dr. Nitin Endlay
- Life Member of Society of Tropical Agriculture, New Delhi – Dr. M.K. Gupta and Dr. Nitin Endlay
- Member Screening Committee of the Biotechnology Incubation Center , Himachal Pradesh University (BIC-HPU) – Dr. Nitin Endlay
- Expert Member of the Committee of Board of Studies for M.Sc (Environmental Management Course) of FRI (Deemed to be University) – Dr. Nitin Endlay

PUBLICATIONS

List of Publications published during the year 2022-2023 is as under:

- Bisaria, K., Wadhwa, S., Mathur, A., Roy, S., Dixit, A., and Singh, R., **“New bismuth oxy iodide/chitosan nanocomposite for ultrasonic waves expedited adsorptive removal of amoxicillin from aqueous medium: kinetic, isotherm and thermodynamic investigations”** Environ Sci Pollut Res, 29, 2022, Page 86260–86276
- Dixit, A.K; Kapgate, B; Anupam, K; Anshu, Kumar, R; Gupta, M. K. **"Evaluation Study of Lignin Obtained from Pulp and Paper Industries in Rubber Compounds"**. IPPTA Journal Volume 34 (3), 2022, page 133-137
- Endlay, N; Elanchezhian, M; Mohd Salim; Shukla, U.K; Kumar, R; Saha, J.N; Gupta, M. K. and Saini, H.K. **"Application of Alternate Energy through Generation, Purification and Utilization of Biogas from Pulp & Paper Mill Effluent"**. IPPTA Journal, Volume 34 (3), 2022, page 50-56
- Endlay, N; Gupta, M. K; Misra, S; Pundir, M. and Sinha, R.H.K; **"Water Conservation through Inhouse Strategies in an Agro Based Pulp and Paper Mill"**. Proceedings of PAPEREX 15th International Technical Conference on Pulp, Paper and Allied Industries May, 10-12, 2022, Page 153-162
- Endlay, N; Mohd Salim, Tripathi, A. R; Tyagi, A. and Gupta, M. K. **"Water Conservation Strategies and Opportunities for Sustainability of Pulp and Paper Sector: An Overview of Recent Trends"** Book Chapter Published in Advances in chemical, Bio and Environmental Engineering, Springer, page 671-685
- Endlay, N; Mohd. Salim; Gupta, M.K; Elanchezhian, M; Dekivadia, S; Jayakumar; Habets, L. **"Achieving of Zero Liquid Discharge through Biomethanation in a RCF Based Kraft Paper Mill"**. Proceedings of PAPEREX 15th International Technical Conference on Pulp, Paper & Allied Industries, New Delhi May, 10-12, 2022, Page 117-126
- Endlay, N; Mohd. Salim; Shukla, A; Singh, R.K; Vidyarthi, A.K; and Gupta, M.K. **"Environmental Status of Pulp and Paper Industries in River Ganga Basin"**. Proceedings of 6th International Technical Conference on Pulp, Paper & Allied Industries, Chennai, November 23-24 2022, page 91-98

- Jain, R.K; Srikant, S; Gupta, S; Alimjanov, F; Gupta, M. K. and Endlay, N. **"UNIDO's initiative for Productivity Enhancement, Energy efficiency, Odour Control and Waste Water Management in Indian Pulp and Paper Industry"**. Proceedings of 6th International Technical Conference on Pulp, Paper and Allied Industries November, 23- 24, 2022, page 85 -90
- Kumar, A; Dixit, A.K; Anshu; Anand, S., Das, S., Gupta, M. K., **"Alternate Energy Generating Opportunities in Pulp and Paper Mills"**. IPPTA Journal, Volume 34(3), 2022, page 44-49
- Lal, Priti. S; Sharma, A; Dhiman, G and Gupta, M. K. **"Effect of Process Variables on Pulp Yield of Indigenous Raw Materials"**. IPPTA Journal, Volume 34(1), 2022, page 43-46
- Mohd Salim; Endlay, N; Mishra, S; Gupta, M. K. and Thapliyal, B. P., **"Statistical Validation of Makeup Water Requirement in a Recycled Fibre based Kraft Paper Mill Operating on Zero Liquid Discharge"**. IPPTA Journal, Volume 35 (1), 2023, page 161-165
- Zaidi, S; Vats, M; Kumar, N; Janbade, A. and Gupta, M.K. **"Evaluation of food packaging paper for microbial load and storage effect on the microbial activity of paper"**. Packaging Technology and Science, Volume 35(7), 2022, page 569-577
- एंडले, नितिन. **कागज़ एवं भारतीय लुग्दी और कागज उद्योग – परिचय, मिथक और वास्तविकता**–, कर्गद भारती, वर्ष 1 अंक, 1 अप्रैल–जून, 2022
- एंडले, नितिन. **सीपीपीआरआई कागज़ संग्रहालय- एक परिचय** – कर्गद भारती वर्ष 1 अंक 2 जुलाई – सितंबर

REPORTS

During the year 2022-2023 various reports were prepared. Details are as under:

Raw Material, Pulping and Bleaching

- Evaluation of Whole Hemp and Hurds for producing various grade of pulp products
- Evaluation of sisal fibre
- Production of dissolving grade pulp from banana
- Dissolving grade pulp production from bamboo species viz bambusa balcooa, bamboo vulgar and bamboo tulda
- Optimization Study of bamboo for kraft Paper Making
- Chemi Thermo Mechanical Pulping of Pine needle, kala bass and Lantana for Pulp Making
- Evaluation of Ear Buds sample for Pulp and Paper making
- Utilization of rice husk along with agro residues for production of unbleached pulps for various products
- Optimization Study of Soda Pulp from Rice Straw
- Bamboo for pulp paper and fibre submitted part of “Report National Bamboo Development Mission” to NITI Ayog New Delhi
- National Jute Board Project report

Annual contract auditing reports of chemical recovery

- Trident Limited, Barnala, Punjab
- Kuantum Papers Limited, Hoshiarpur, Punjab
- Grasim Industries Limited, Karnataka

ZLD Feasibility Evaluation

- Starwork Papers Private Limited, Meerut, Uttar Pradesh
- Janki Newsprint Private Limited, Meerut, Uttar Pradesh
- Hariom Industries Limited, Kanpur, Uttar Pradesh

- Disha Industries Private Limited, Muzaffarnagar, Uttar Pradesh
- Nikita Papers Limited, Shamli, Muzaffarnagar, Uttar Pradesh
- Shuklambara Papers Limited, Bazpur, Uttarakhand

ETP Adequacy Assessment

- Katyayini Tissues Private Limited, Uttarakhand
- Star Paper Mills Limited, Saharanpur, Uttar Pradesh
- AIM Industries Limited (Slaughter House), Saharanpur, Uttar Pradesh
- Al Saqib Exports Private Limited Meerut, Uttar Pradesh

ETP Performance Evaluation

- Sainsons Paper Industries Private Limited, Kurukshetra, Haryana

Color Removal Studies

- Andhra Papers Limited, Rajahmundry, Andhra Pradesh

GPI Study

- GPI Inspection Reports of 126 units were prepared by the different scientist of CPPRI in the year 2022-2023.

VISITS TO PAPER MILLS AND OTHER ORGANISATION

CPPRI Scientists visited following paper mills and other organization during April 2022- March 2023.

- Dr. Sanjay Tyagi visited New Delhi for meeting with Sh. Ramsarop for discussion on administrative matters of Institute on April 22, 2022
- Dr. M. K. Gupta and Smt. Anuradha V Janbade visited Vamshadhara paper mill for demonstration of Mill scale odour control plant on April 29, 2022
- Dr. M. K. Gupta and Smt. Anuradha V Janbade visited Krishnanchal paper mill on April 30, 2022 for discussion on odour control
- Dr. M. K. Gupta and Smt. Anuradha V Janbade attended meeting with Dr. A.B. Pant (senior principal scientist) at CSIR-IITR Lucknow for discussion on toxicity assessment of paper on May 13, 2022
- Dr. Nitin Endlay and Shri. Satya Dev Negi visited Naini Paper Mill, Kashipur on May 25, 2022
- Dr. Priti S. Lal Visited Satia Paper Mills Ltd., Punjab to attend board meeting on May 27, 2022
- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited DPIIT, New Delhi for meeting on June 03, 2022
- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited NIH, Roorkee for meeting on July 05, 2022
- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited DPIIT, New Delhi from July 11-12, 2022
- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited DPIIT, New Delhi and ICARI, New Delhi from July 25-26, 2022
- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited DPIIT, New Delhi and NCCBM, Ballabgarh from August 02-03, 2022
- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited M/s. Nepa Limited, Nepanagar from August, 21-24, 2022
- Dr. M. K. Gupta, Dr. Priti S. Lal, Dr. Sanjay Tyagi, Shri A. K. Goel, and Shri N. K. Nayak visited New Delhi for site selection of new WPRPC centre on September 01-02, 2022

- Dr. M.K. Gupta and Dr. Sanjay Tyagi visited DPIIT, Udhayog Bhawan, New Delhi for follow up of CoA meeting minutes on September, 05-08, 2022
- Dr. Nitin Endlay and Shri. Mohd Salim visited New Bonanza Paper Mill, Meerut, September 12, 2022
- Dr. Priti S. Lal visited Kanahiya Engineering works, Yamunanagar on September 12, 2022
- Dr. Priti S.Lal and Dr. Arvind Sharma visited Gurunanak Engineering Works New Delhi September 14, 2022
- Dr. Priti S. Lal and Dr. Arvind Sharma visited NITRA (National Institute of Textile Research association), Ghaziabad on September 14, 2022
- Dr. Nitin Endlay and Shri. Mohd Salim visited Disha Industries and Nikita Paper Mills Ltd., Muzaffarnagar October 07, 2022
- Dr. M. K. Gupta, Dr. K. Singh Dr. Priti S. Lal, Dr. Sanjay Tyagi, Sh. Alok Kumar Goel, Sh. Satya Dev Negi, Sh. N. K. Naik visited WPRPC centre, Patparganj, New Delhi for attending the inaugural function of WPRPC centre on October 11-12, 2022
- Dr. M. K. Gupta and Dr. Sanjay Tyagi visited DPIIT, New Delhi CPPRI for meeting on October 19-20, 2022
- Mr. Mohd Salim and Shri. Abhishek Tyagi visited Shreyans Industries Limited (Unit: Ahmedgarh), Punjab from October 21-22, 2022
- Dr. M. K. Gupta and Dr. Sanjay Tyagi visited DPIIT, New Delhi for follow up of CoA meeting minutes on October 31, 2022 to November 01, 2022
- Dr. Priti S. Lal and Dr. Arvind Sharma visited Patanjali health wellness Centre in connection of pre trial of centrifugal washer on November 17, 2022
- Dr. M. K. Gupta, Dr. Nitin Endlay and Shri. Mohd Salim visited Hariom Industries Limited, Kanpur, Uttar Pradesh November 25-26, 2022
- Mr. Mohd Salim, Shri. Abhishek Tyagi, Shri. Sandeep Kumar and Shri. Ajay Parmar visited Trident Limited, Barnala, Punjab on December 5-9, 2022
- Dr. Priti S. Lal visited BRBNML and CFTRI Mysore on December 18, 2022
- Dr. Shubhang Bhardwaj and Dr. Jitender Dhiman visited Packaging conference organized

by IIP, Delhi in Delhi from December 22-23, 2022

- Mr. Mohd Salim visited Khatema Fibres Limited, Khatima, Uttarakhand for ETP adequacy assessment on January 12, 2023
- Mr. Mohd Salim visited Katyayini Tissues Private Limited, Udham Singh Nagar, Uttarakhand for ETP adequacy assessment on January 13, 2023
- Dr. Sanjay Tyagi, visited offices of Dr. R. C. Rastogi, SG- IARPMA, IPMA and INMA, DS (Finance) regarding the finalization of minutes of meeting of CoA from January 18-20, 2023
- Dr. Arvind Sharma visited FRI, Dehradun to attend one day workshop on January 20, 2023
- Dr. Priti S. Lal visited Ambedkar Institute of Productivity (AIP), Chennai IIT Madras Incubation centre on January 23, 2023
- Shri. Kumar Anupam and Dr. Shubhang Bhardwaj visited IIT Roorkee, Greater Noida for ISO work from January 23-25, 2023
- Dr. M K Gupta and Mr. Mohd Salim visited Hariom Industries Limited, Kanpur, Uttar Pradesh on February 5-7, 2023
- Shri. Satya Dev Negi and Shri. Kuldeep Sharma visited Mehali Paper Mill, Dahej, Gujarat on February 06, 2023
- Dr. Sanjay Tyagi and Shri Y. K. Sharma visited Vanijaya Bhawan, New Delhi for discussion on recruitment process on mission mode on February 17, 2023
- Dr. M. K. Gupta and Dr. Sanjay Tyagi visited CFTRI, Mysuru for signing of MOU from February, 18-22, 2023
- Dr. M. K. Gupta, Mr. Mohd Salim and Shri. Abhishek Tyagi visited Silvertoan Papers Limited, Muzaffarnagar, Uttar Pradesh on February 24, 2023
- Dr. M K Gupta, Dr. Nitin Endlay, Mr. Mohd Salim and Shri. Abhishek Tyagi visited Silvertoan Papers Limited, Muzaffarnagar, Uttar Pradesh on March 03-04, 2023
- Dr. Sanjay Tyagi, Shri Alok Goel and Shri Y. K. Sharma visited to New Delhi for meeting with Sh. Ramsaroop for discussion on administrative matters of Institute on March 10, 2023
- Dr. Priti S Lal and Dr. Arvind Kumar Sharma visited Pioneer Panels Product, Rohtak on March 12, 2023

- Mr. Mohd Salim visited 58th IPPTA Annual General Meeting & Seminar, Novotel Convention Centre, Hyderabad on March 17-18, 2023
- Dr. Arvind Sharma visited Tuticorin, Tamilnadu to meet with DCPPIA Chairman, Sh. T. Balakumar on March 20-23, 2023
- Mr. Mohd Salim and Shri. Akhil Nathani visited Khanna Paper Mills Limited, Amritsar Punjab on March 21-22, 2023
- Dr. Arvind Sharma visited Stefab India Limited, New Delhi in the connection of pre trial of centrifugal washer on March 29, 2023
- Shri Satya Dev Negi, Dr Arvind Sharma, Dr. Jitendra Dhiman, Dr. Shubhang Bhardwaj, Dr. Nitin, Sh. Kuldeep Sharma, Sh. Akshay Dhiman, Ms. Deepali Sharma and Sh. Ajay Panwar, visited the various industries under GPI study

International Visits

- Dr. Sanjay Tyagi, visited three countries: Germany, Sweden and Austria” as a part of Indian delegation on study tour on the topic “Energy Efficiency in Pulp & Paper Sector” from November 13-25, 2022

M.Sc. (Cellulose and Paper Technology)

(A Joint Collaborative Course of FRI, deemed to be University, Dehradun and CPPRI, Saharanpur)

CPPRI arrival of students of session 2021-23

Students of 11th batch of M.Sc. (Cellulose and Paper Technology) arrived at CPPRI from Forest Research Institute (FRI), Dehradun. The first year of this course is conducted at Forest Research Institute (Deemed to be University) Dehradun while the second year is conducted at CPPRI, Saharanpur. The total strength of the course is 3 female and 8 male students. In this batch, students from different states of the country like Uttarakhand, Madhya Pradesh, Uttar Pradesh, Manipur, Bihar and Himachal Pradesh are studying. At CPPRI, these students are trained in raw material conservation and storage, pulping and bleaching, stock preparation and paper making, paper recycling, paper testing. Theoretical and practical knowledge of the subject, paper characterization, chemical recovery, environmental management etc. will be imparted.

Activities

The final year classes of the students of the eleventh batch (2022-23) of M.Sc. (Cellulose and Paper Technology) were conducted at CPPRI. Both theoretical and practical knowledge on various aspects of pulp and papermaking i.e. raw material handling and preservation, pulping and bleaching, stock preparation and papermaking, paper recycling, paper properties, specialty paper, chemical recovery, environmental management and biotechnological applications were imparted to the students by CPPRI scientists.

The students also carried out one-month compulsory project work in various areas of paper making as a part of curriculum.

The first year toppers in girls and boys category namely Km. Taibangambi and Shri Skand Amoli respectively were awarded scholarship of Rs. 25,000/- each by Star Paper Mills Limited, Saharanpur, Uttar Pradesh.

List of Students

Shri Akash Kumar Rawat, Km. Deepa Dubey, Km. Kumari Sukanya Tripathi, Shri Kushal, Shri Mayank Pandey, Shri Nishant Dhadwal, Shri Rajan Kumar Kushwaha, Shri Rupansh Singh, Shri Skand Amoli, Km. Taibanganbi Khuraijam and Shri Vishal Sharma.

Dissertation work

The classes for the 4th semester of M.Sc. (Cellulose and Paper Technology) (2022-2023) were conducted at CPPRI. During this period, research work was done for all the students in the field of chemical recovery, environmental management, stock preparation and paper manufacturing, coating, pulping and bleaching, paper characterization, etc., under the supervision of the scientists of the institute.

Industrial Training

It is mandatory for the students to undergo industrial training for about 45 days. In this sequence, the students were sent for industrial training in various mills and allied industries of the country such as Star Paper Mills Limited, Kuantum Papers Limited, Century Pulp and Paper, Nestle India Limited, ITC Limited, Valmet Limited and Seshasayee Paper and Boards Limited.

Campus Placement

Many companies were invited by CPPRI for campus placement to provide employment opportunities to M. Sc students in various paper industries and other allied companies of the country. As a result, students were placed on various posts in Orient Papers Limited, Kuantum Papers Limited, ITC Limited, Valmet Limited and Rohit Surfactant Private Limited.

Tour of Star Paper Mill Saharanpur

A paper industry visit not only gives the students an opportunity to gain knowledge about the working and technologies of the industry but also helps them to understand the ground reality of running such a big business. M.Sc. students had the opportunity to visit Star Paper Mills Limited, Saharanpur, where they got to see and understand the production process of industrial, packaging and cultural papers. In this tour the students were exposed to all the activities of the paper industry like pulping and bleaching, stock preparation, chemical recovery, effluent treatment plant, paper machine etc. Star Paper Mills Limited, established in 1938, is an integrated pulp and paper mill.

RIGHT TO INFORMATION

Central Pulp and Paper Research Institute has been implementing the Right to Information Act, 2005 since the promulgation of the Act. In compliance of the provision of the RTI Act 2005, CPPRI has constituted a RTI cell. Further, Director is designated as First Appellate Authority (FAA) for addressing the appeals/complaints, filed by the Appellant. At present, Dr. M.K.Gupta, Director CPPRI is the designated First Appellate Authority (FAA) in the Institute. Shri Alok Kumar Goel and Scientist E-II is the Public Information Officer (PIO), who is assisted by Smt. Sarita Sharma, Library Officer- B and Assistant Public Information Officer (APIO). Dr. Nitin Endlay, Scientist E-II is the nodal officer of the Institute.

RTI cell keeps record of all the RTI applications/appeals being received in the Institute and also monitors their timely disposal.

CPPRI has provided the required information on its website (www.cppri.res.in/rti) under Suo moto disclosure on proactive basis and also the same being updated on regular basis.

During the year 2022-2023, Under RTI Act - 2005, CPPRI received total 21 numbers RTIs and 4 Appeals. Details are as under:

RTI Status (2022-2023)

Year	RTI Applications Received	RTI Applications Disposed	Appeal Received	Appeal Disposed	Applications Rejected
2022-2023	21	21	4	3	0

Reports under the RTI Act -2005 is furnished to the Central Information Commission (CIC) on quarterly basis.



FINANCIAL REPORT 2022-23

Kinra & Associates
Chartered Accountants

H. No. 32, Phase III-B
Pant Vihar, ITC Road, Saharanpur
Contact - 91- 7906192914

CENTRAL PULP & PAPER RESEARCH INSTITUTE

An autonomous organisation registered under societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India)
POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR (U.P.)

**AUDITOR'S REPORT TO THE MEMBERS OF THE
CENTRAL PULP AND PAPER RESEARCH INSTITUTE, SAHARANPUR (U.P.)**

We have audited the attached Balance Sheet of CENTRAL PULP AND PAPER RESEARCH INSTITUTE, SAHARANPUR (U.P.) as on 31.3.2023 and Income and Expenditure account & Receipt & Payment Account for the year ended on that date, which are in agreement with the books of accounts maintained by the Institute. These financial statements are the responsibility of the auditee's management. Our responsibility is to express an opinion on these financial statements based on our Audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit include examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit. In our opinion proper books of accounts have been kept/ maintained by the Institute.

In our opinion and to the best of our information and according to the explanation given to us, the said account reads with notes thereon; give a true and fair view in conformity with the accounting principles generally accepted in India:

- i) In case of Balance Sheet, of the state of affairs of the Institute as at 31.03.2023, and
- ii) In the case of Income & Expenditure Account of the deficit for the year ended on 31.03.2023.

Date: 28-09-2023
Place: Saharanpur

**For Kinra & Associates
Chartered Accountants**



UDIN:23425053BGSFDI9014

Kinra & Associates
Chartered Accountants

H. No. 32, Phase III-B
Pant Vihar, ITC Road, Saharanpur
Contact - 91- 7906192914

CENTRAL PULP & PAPER RESEARCH INSTITUTE

An autonomous organisation registered under societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR

BALANCE SHEET AS AT 31.03.2023

PARTICULARS	Schedule	Amount (Rs.)	
		Current Year 2022-23	Previous year 2021-22
<u>CAPITAL FUND AND LIABILITIES</u>			
CAPITAL FUND	1	124059379.66	123424938.45
UN-UTILISED SP. PROJECT & CONSULTANCY	2	1124.25	1124.25
UNUTILISED GRANTS	3	58983049.96	47689722.85
CURRENT LIABILITIES AND PROVISIONS	4	51272487.14	52270811.06
TOTAL		234316041.01	223386596.61
<u>ASSETS</u>			
FIXED ASSETS	5	89636944.71	92026087.81
CURRENT ASSETS, LOANS, ADVANCES ETC.	6	144679096.30	131360508.80
TOTAL		234316041.01	223386596.61

The Schedules referred above form an integral part of the Balance Sheet.


As per our separate report of even date.

FOR Kinra & Associates
CHARTERED ACCOUNTANTS

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE


(Gagan Kinra)
F.C.A., M.Com., LLB
M. No. 425053


DIRECTOR


HEAD (P&A)

PLACE: SAHARANPUR
Date: 28-09-2023

Kinra & Associates
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INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31.03.2023

Amount (Rs.)

PARTICULARS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
		2022-23	2021-22
A: INCOME			
Income from Institutional & Consultancy fee	7	32675874.97	28798481.80
Grants from Govt. of India	8	76527439.89	73888792.40
Fees/Subscription	9	992250.00	230000.00
Interest earned	10	1991217.73	3037168.87
Other income	11	619946.79	722245.45
Closing Stock-Store Spares & Stationery		2867873.28	2740065.80
TOTAL (A)		115674602.66	109416754.32
B: EXPENDITURE			
Opening Stock		2740065.80	2540645.92
Establishment expenses	12	60449960.00	62747808.40
Administrative Expenses etc.	13	48106626.65	40462094.98
Depreciation for current year	5	12089370.00	11500534.00
TOTAL (B)		123386022.45	117251083.30
Excess of Expenditure over Income (B-A)		7711419.79	7834328.98
Excess of Income over Expenditure(A-B)		0.00	0.00

The Schedules referred above form an integral part of the Income and Expenditure Account

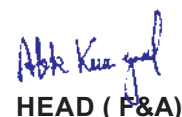
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RECEIPT & PAYMENT ACCOUNT FOR THE YEAR ENDED 31.03.2023

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
Opening Balance:			Establishment Expenses:		
To Bank Balance on current account	26932635.69	21372562.39	By Salary & Allowances	47223192.00	52726266.40
To Deposit Accounts(Margin money against letter of Credit)	2340995.00	13669183.00	By CPF Contribution	4372158.00	4513125.00
To Deposit Accounts	57216277.66	54372861.66	By Encashment of Leave	4405019.00	3571520.00
Grant Received:			By Gratuity paid	5154533.00	5032970.00
To Grant in Aid, MOI, GOI	95316840.00	70000000.00	By Reimbursement of Medical Exp.	821220.00	1241461.00
To Grant in Aid, Development council	12500000.00	25000000.00	Other Administrative Expenses:		
Interest Received:			By Lab & Plant Maintenance	4560525.00	3937692.00
To Int. from Staff on Convey. adv.&HBA	28000.00	32530.00	By Cartage & Freight	75926.00	3050.00
To Interest received from bank	2949765.00	2963896.87	By Electricity and water	7670710.00	7105281.00
Other Income:			By Repair & Maintenance of Assets	14754709.14	9968348.90
To Testing fee	17266429.94	16371817.00	By Rent & Taxes	1192680.00	857304.00
To Consultancy fees	13087863.75	11730656.76	By Postage & Telephone & communication	112030.10	112292.08
To Msc. Course Fee	393700.00	637500.00	By Printing & Stationery	1911759.00	797697.00
To Library Fee	17000.00	37000.00	By Travelling & Conveyance Exp.	2722698.69	1122423.00
To Training fees & expenses etc	873600.00	195000.00	By Exp.on Seminar & Workshop	233009.00	5400.00
To Membership fee & Taxes etc.	71350.00	35000.00	By Membership & Subscription	59000.00	12000.00
To Lease Rent	62500.00	71500.00	By Audit fees	41500.00	0.00
To Hostel rent	260150.00	266000.00	By Hospitality Expenses.	251353.00	48773.00
To Miscellaneous Receipt	552.79	2989.00	By Legal & Professional Exp.	374737.40	472466.40
To Licence Fee	266744.00	264044.00	By News Paper	30138.00	76720.00
To Laboratory fee	0.00	28000.00	By Training Exp.	7901.00	1340563.00
Advances			By Watch & Ward	7073432.06	6562682.00
To House Building Advance	57600.00	62108.00	By Bank charges	9152.66	26790.43
To Conyance Advance	2000.00	9000.00	By Advertisement	65000.00	24114.00
To Computer Advance	33380.00	42000.00	By Testing Fee paid	162180.00	4956.00
Other Receipt:			By Staff Car Maintenance	944541.00	758292.00
To SGST	782489.07	626482.65	By Hindi Diwas Exp. / Yoga Day	182177.00	381592.00
To CGST	782489.07	626482.65	By Swachh Bhart Abhiyan Exp.	1959213.38	2012675.00
To IGST	4426559.96	3586384.10	By Software/Expenditure on IT	1001140.20	1086603.17
To Security Received	108000.00	0.00	By Paper ex	17942.00	19930.00
To Sundry Debtors	0.00	351597.45	By Expenditure on NABL	184126.00	114420.00
To Schollership for M.Sc. Student	50000.00	50000.00	By Grant in Aid to Participating Agency	1664000.00	4860000.00
To Advance to Supplier	0.00	189207.00	By Honorarium	26400.00	82300.00
To Ltc Recovery	0.00	67500.00	BY National Festival	79322.00	63140.00
To Sale of Publication	30000.00	0.00	By Plantation & Gardening	55762.00	167750.00
To Earnest Money Received	283816.00	0.00	BY Electric Consumable	386537.00	333878.00
To Income Tax ECPF Trust	40.00	0.00	By Consultancy fee paid	100000.00	223000.00
To Gen. Ad. Recovery	63926.00	0.00	By Interest Paid on TDS	4610.00	0.00
To T.A. Adv Recovery	7040.00	0.00	By scholarship for M sc Student	100000.00	50000.00
			Fixed Assets/ Capital work in Progress	9680303.42	15967778.48
			Other Payments:		
			By T.D.S. (Parties)	123677.00	559968.00
			By TDS - GST	141996.56	30437.00
			By TDS-Technical	0.00	1781.00
			By SGST	738886.00	985360.30
			By CGST	738886.00	985360.30
			By IGST	3910805.00	4034176.00
			By Advance to Staff	342233.68	192924.15
			By Refund of Security	64560.00	14000.00
			By Advance to Suppliers	658808.50	853647.00
			By Advance for Computer	50000.00	0.00
			By Payment to Parties	0.00	1970345.00
			By TDS deducted by Parties	0.00	743662.57
			By Refund of Grant	765002.00	114479.00
			By Current Liability	134295.00	0.00
			By Grant Forwarded to FRI	7754710.00	0.00
			By Advance Paid on Director, FRI	5045290.00	0.00
			Closing Balances:		
			By Bank Balance on current account	33564919.48	26932635.69
			By Deposit A/c(Margin money against L.C.)	2340995.00	2340995.00
			By Deposit Accounts	60166042.66	57216277.66
TOTAL	236211743.93	222661302.53	TOTAL	236211743.93	222661302.53

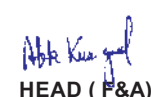
As per our separate report of even date.

FOR Kinra & Associates
CHARTERED ACCOUNTANTS


(Gagan Kinra)
F.C.A., M.Com., LLB
M. No. 425053

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE


DIRECTOR


HEAD (F&A)

PLACE: SAHARANPUR
Date: 28-09-2023

Kinra & Associates
Chartered Accountants

H. No. 32, Phase III-B
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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE 1 - CAPITAL FUND

PARTICULARS	CURRENT YEAR 2022-23		PREVIOUS YEAR 2021-22	
CAPITAL FUND				
Balance as at the beginning of the year	123424938.45		120890103.02	
Add:1:				
Cess Project (Capital Purpose)	3450616.00		9271902.41	
Plan Project (Capital Purpose)	4895245.00		1097262.00	
	131770799.45		131259267.43	
less:-				
Balance of net expenditure transferred from the income & expenditure account	7711419.79	124059379.66	7834328.98	123424938.45
BALANCE AS AT THE YEAR - END		124059379.66		123424938.45

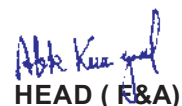
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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 2 - DETAILS OF UN-UTILIZED AMOUNT SPONSORED PROJECT/CONSULTANCY

Sl. No.	NAME OF PROJECT	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
1	DBT-Technological improvevt of Process	1124.25	1124.25
		1124.25	1124.25

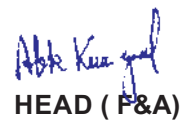
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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023
SCHEDULE - 3 - DETAILS OF UN-UTILIZED GRANT

PARTICULARS	BALANCE		GRANTS RECEIVED & UTILISED DURING 2022-23								UNSPENT BALANCE	
	1.4.2022		RECEIVED	REFUNDED	Advance from	Adv. Return	GRANT	NET FUNDS	UTILISED		31.3.23	31.3.22
	AMOUNT	AMOUNT	AMOUNT	AMOUNT	CPPRI (IRG)	CPPRI (IRG)	FORWARD	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Plan Grant	12262.00	21796835.00		0.00	0.00	0.00						
Plan (Capital) a/c	3002738.00	12721726.00		0.00	0.00	100000.00	3000000.00	12624464.00	4895245.00	7729219.00	3002738.00	
BASE LEVEL SUPPORT(NON-PLAN)	765002.00	58298279.00	765002.00	0.00	0.00	0.00	0.00	58298279.00	56155743.00	2142536.00	765002.00	
Swatcha Action Plan	10555.00	2500000.00	0.00	0.00	0.00	28000.00	0.00	2482555.00	2411232.00	71323.00	10555.00	
Cess Funded project												
A review study of ITS-HS classification	739559.00	0.00	0.00	0.00	0.00	0.00	0.00	739559.00	0.00	739559.00	739559.00	
Bacterial Cellulose Production for Driver	5836216.00	0.00	0.00	0.00	0.00	0.00	0.00	5836216.00	951357.00	4884859.00	5836216.00	
Continou Education for Technical Personnel in Pulp & Paper Industry	127919.75	3690000.00	0.00	0.00	0.00	0.00	0.00	3817919.75	3690000.00	127919.75	127919.75	
Demonstration of Ozone Treatment Technology	1862302.00	0.00	0.00	0.00	0.00	0.00	0.00	1862302.00	1427514.00	434788.00	1862302.00	
Biopolymeric approach for Improvement of	12710554.00	1636000.00	0.00	0.00	0.00	0.00	0.00	14346554.00	631309.00	13715245.00	12710554.00	
Land Application of Treated Effluent Fr	3026652.00	2620000.00	0.00	0.00	0.00	0.00	0.00	5646652.00	537779.00	5108873.00	3026652.00	
Studies on Alternate Auto causticisation	10442221.00	800000.00	0.00	0.00	0.00	0.00	0.00	11242221.00	1132243.00	10109978.00	10442221.00	
Study on Delignification of Agro Residu	3649290.00	524000.00	0.00	0.00	0.00	0.00	0.00	4173290.00	2693282.00	1480008.00	3649290.00	
Creation of Testing Facilities for Food Packaging paper	607975.96	0.00	0.00	0.00	0.00	0.00	0.00	607975.96	322735.00	285240.96	607975.96	
Census Survey of the Indian Paper Industry	1350566.00	1850000.00	0.00	0.00	0.00	0.00	0.00	3200566.00	374216.00	2826350.00	1350566.00	
A Synergistic and Economical Approach for Treatment of Pulp & Paper Mill	1140319.00	0.00	0.00	0.00	0.00	0.00	0.00	1140319.00	366945.00	773374.00	1140319.00	
Cess core secretariat of Dev.	2150449.00	880000.00	0.00	0.00	0.00	0.00	0.00	3030449.00	1037620.00	1992829.00	2150449.00	
Screening of Parents for Clonal Forestry & Hybridization for Higher Productivity	255142.14	0.00	0.00	0.00	0.00	0.00	0.00	255142.14	255142.14	0.00	255142.14	
Organization Dissemiation	0.00	500000.00	0.00	0.00	0.00	0.00	0.00	500000.00	0.00	500000.00	0.00	
Total =	47689722.85	107816840.00	765002.00	0.00	0.00	130500.00	10754710.00	143856350.85	84873300.89	58983049.96	47689722.85	

As per our separate report of even date.

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CHARTERED ACCOUNTANTS


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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE 4 - CURRENT LIABILITIES AND PROVISIONS

S.No.	PARTICULARS	CURRENT YEAR 2022-23		PREVIOUS YEAR 2021-22	
A.	CURRENT LIABILITIES AND PROVISIONS				
	CURRENT LIABILITIES:				
	<u>Other Liabilities</u>				
1	Retention Money received	32792.00		32792.00	
2	Security Received from Contractors	20652.00		82212.00	
3	Earnest money received	377716.00		93900.00	
4	Advance received for services	214855.00		214855.00	
5	Security received from students	33000.00		33000.00	
6	Security Received from Staff	20000.00		23000.00	
7	SGST	81177.42		37574.35	
8	CGST	81177.42		37574.35	
9	IGST	652882.26		137127.30	
10	Advance by Suppliers	0.00		103089.00	
11	Scholarship for M.Sc. Student	0.00		50000.00	
12	Amount Payable to Staff	672.00	1514924.10	0.00	845124.00
	TOTAL (A)		1514924.10		845124.00
B.	PROVISIONS:				
1	Expenses payable	25975.00		158201.00	
2	Pro. for gratuity & encashment of leave	49423390.00		50897019.00	
3	Audit fee payable	41500.00		41500.00	
4	Performance Bank Guarantee	31317.00		31317.00	
5	Fellow Ship payable	13000.00		13000.00	
6	Income Tax (TDS) Payable	147567.00		123677.00	
7	GST (TDS) Payable	74774.04		141999.06	
8	Arrear of Salary & CPF Contribution	0.00		18974.00	
9	Income Tax ECPF Trust	40.00	49757563.04	0.00	51425687.06
	TOTAL (B)		49757563.04		51425687.06
	TOTAL (A+B)		51272487.14		52270811.06

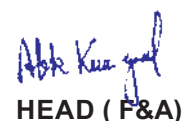
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DIRECTOR


HEAD (F&A)

PLACE: SAHARANPUR
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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023
SCHEDULE - 5 - FIXED ASSETS

Sl. No.	PARTICULARS	GROSS BLOCK		NET VALUE ON 1.4.2022	ADDITION DURING THE YEAR		SALES DURING THE YEAR	COST AT THE YEAR END	%AGE OF Dep	DEPRECIATION FOR 2022-23	NET BLOCK	
		TOTAL COST AS ON 1.4.2022	TOTAL DEPRECIATION 31.3.2022		FIRST HALF	SECOND HALF					AS AT THE 31.3.2023 YEAR-END	AS AT THE 31.3.2022 YEAR-END
A. FIXED ASSTES												
1	Land	16872204.10	0.00	16872204.10			0.00	16872204.10	0%	0.00	16872204.10	16872204.10
2	Land Scaping Work in Progras	487684.45	0.00	487684.45			0.00	487684.45	0%	0.00	487684.45	487684.45
3	Building	116372547.34	108082287.96	8290259.38			0.00	8290259.38	10%	829026.00	7461233.38	8290259.38
4	Office Equipment	18327775.86	13091629.90	5236145.96		25000.00	0.00	5261145.96	10%	524865.00	4736280.96	5236145.96
5	Furniture & Fixtures	9124452.38	7556884.31	1567568.07	45312.00	259025.00	0.00	1871905.07	10%	174239.00	1697686.07	1567568.07
6	Hostel Furniture	408288.06	399752.81	8535.25			0.00	8535.25	10%	854.00	7681.25	8535.25
7	Vehicle	2931118.84	2587921.00	343197.84			0.00	343197.84	15%	51480.00	291717.84	343197.84
8	Plant Machinery & Lab Equipment	302642135.41	251300177.47	51341957.94	4301204.00	3447974.00	0.00	59091135.94	15%	8605072.00	50486063.94	51341957.94
9	Plant & Machinery at HNL	5800000.00	5763352.29	36647.71			0.00	36647.71	15%	5497.00	31150.71	36647.71
10	Equipment with NCBM	500000.00	492511.14	7488.86			0.00	7488.86	15%	1123.00	6365.86	7488.86
11	Workshop equipment	536385.07	509193.11	27191.96			0.00	27191.96	15%	4079.00	23112.96	27191.96
12	Instruments	211032.13	210771.69	260.44			0.00	260.44	15%	39.00	221.44	260.44
13	D.G.Set	2094916.68	2071384.99	23531.69			0.00	23531.69	15%	3530.00	20001.69	23531.69
14	Air Conditioner & Cooler etc.	6937281.72	5642208.86	1295072.86	98170.00		0.00	1393242.86	15%	208986.00	1184256.86	1295072.86
15	Electrical Install & Equipment	5201422.59	2753743.78	2447678.81	22000.00		0.00	2469678.81	15%	370452.00	2099226.81	2447678.81
16	Books and Periodicals	11150398.37	10725778.85	424619.52		79506.90	0.00	504126.42	40%	185749.00	318377.42	424619.52
17	Computers	20290861.89	18832747.94	1458113.95	785964.00	326202.00	0.00	2570279.95	40%	962872.00	1607407.95	1458113.95
18	Capital work in Progress	965125.00	0.00	965125.00			0.00	965125.00	0%	0.00	965125.00	965125.00
19	Guest House Equipment	6800.00	3186.80	3613.20	137203.00		0.00	278019.20	10%	20942.00	257077.20	3613.20
20	Horticulture Equipment (tractor)	535565.00	155838.00	379727.00		35463.00	0.00	415190.00	15%	59619.00	355571.00	379727.00
21	Tubewell	1298684.00	489220.18	809463.82			0.00	809463.82	10%	80946.00	728517.82	809463.82
TOTAL OF CUURENT YEAR		522694678.89	430668591.08	92026087.81	5389853.00	4310373.90	0.00	101726314.71		12089370.00	89636944.71	92026087.81
TOTAL OF PREVIOUS YEAR		505442654.16	419168057.08	86274597.08	2227710.25	15024314.48	0.00	103526621.81		11500534.00	92026087.81	86274597.08

As per our separate report of even date.

FOR Kinra & Associates
CHARTERED ACCOUNTANTS


(Gagan Kinra)
F.C.A., M.Com., LLB
M. No. 425053

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE


DIRECTOR

HEAD (F&A)

PLACE: SAHARANPUR
Date: 28-09-2023



Kinra & Associates
Chartered Accountants

H. No. 32, Phase III-B
Pant Vihar, ITC Road, Saharanpur
Contact - 91- 7906192914

CENTRAL PULP & PAPER RESEARCH INSTITUTE

An autonomous organisation registered under societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 6 - CURRENT ASSETS, LOANS, ADVANCES ETC.

S.No.	PARTICULARS	CURRENT YEAR 2022-23		PREVIOUS YEAR 2021-22	
	A: CURRENT ASSETS:				
1	Inventories:				
a	Store & Spares	2223537.76		2071164.76	
b	Stationery & Misc. Store	644335.52	2867873.28	668901.04	2740065.80
2	Bank Balances: (With Scheduled Banks)				
a	On Current Accounts		33564919.48		26932635.69
b	On Deposit Accounts (margin money-against letter of credit)		2340995.00		2340995.00
c	FDR for Bank Guarantee to UPNEDA	109614.00		104542.00	
d	On Deposit Accounts on SDR	60056428.66	60166042.66	57111735.66	57216277.66
e	Accrued Interest on SDR		0.00		1314662.09
	B: LOANS, ADVANCES AND OTHER ASSETS:				
	<u>Loan to Staff:</u>				
1	Interest bearing Advances				
a	House Building Advance	638400.00		696000.00	
b	Advance for Purchase of Vehicle	0.00		1328.00	
c	Advances for computer	88120.00		71500.00	
d	Accrued Interest on Advances	382592.00	1109112.00	343039.00	1111867.00
2	<u>Advances and other amounts recoverable in cash or in kind or for value to be received</u>				
	ADVANCES:				
a	Purchase of Machinery and other work	11385652.44		10769343.94	
b	Advance Paid to DBT for Biological B.L. Project	50.00		50.00	
c	Advance to UPRNN	350000.00	11735702.44	350000.00	11119393.94
3	<u>Amounts recoverable in cash or in kind</u>				
a	Amount Recoverable	4142.00		4142.00	
b	T D S	9832707.42		8273974.42	
c	Cenvetavilment - Education Cess	1334.00		1334.00	
d	Cenvetavilment - H. Education Cess	290.00		290.00	
e	Cenvetavilment - K. K. Cess	4999.00		4999.00	
f	Sundry Debtors	11545077.07		10720666.07	
g	Plant Equipment of CPCB	2694541.00		2694541.00	
h	Lab Equipment-IPMA/Dev. Council	1350682.00		1350682.00	
i	Earnest Money Deposit	50.00		50.00	
j	N.P.C.	706.75		706.75	
k	Imprest	27418.70		27418.70	
l	Advance to CPPRI Staff	517158.50		312759.50	
m	Security Deposits	1849206.00		1996345.00	
n	Telephone deposit under OYT	39139.00		0.00	
o	Interest on FDR Amount Recoverable	0.00		39203.18	
p	DCPPAI	27000.00	27894451.44	27000.00	25454111.62
4	Advance paid to PBS Plan Projects		0.00		130500.00
5	GRANT FORWARD AS AN ADVANCE				
a	PBS Plan Grant forward as an advance		5000000.00		3000000.00
	TOTAL		144679096.30		131360508.80

As per our separate report of even date.


FOR Kinra & Associates
CHARTERED ACCOUNTANTS

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Date: 28-09-2023

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE


DIRECTOR


HEAD (F&A)

Kinra & Associates
Chartered Accountants

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 7 - INCOME FROM INSTITUTIONAL AND CONSULTANCY FEE

S.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
1	Testing fee	18511741.97	16332975.00
2	Consultancy fee.	13784133.00	11736506.80
3	Laboratory Fee	0.00	28000.00
4	Library Fee	17000.00	38000.00
5	M.Sc. Course Fee	363000.00	663000.00
	TOTAL	32675874.97	28798481.80

As per our separate report of even date.

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 8 - GOVERNMENT GRANT RECEIVED

S.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
1(a)	Government of India - Plan	11553019.00	3490238.00
(b)	Government of India - Plan (Capital a/c)	0.00	0.00
(c)	Swatch Action Plan	2411232.00	2017445.00
2(a)	Government of India through Development Council for Pulp, Paper & Allied Industries-Non Plan	56155743.00	59994102.40
(b)	Core Secretariate for Development Council PP&A Industry	1037620.00	1448108.00
3	Government of India through Development Council for Pulp, Paper & Allied Industries for Cess Projects		
(a)	Continious Education Training of Tech Personal	127919.75	1129144.00
(b)	Statistical Data collection Cell for Indian Pulp & Paper Industry /Cencus survey	13500.00	1016787.00
(c)	Creation of Testing Facilities for Food Packaging paper	272470.00	2023767.00
(d)	A Synergistic and Economical Approach for Treatment of Pulp & Paper Mill	178474.00	383193.00
(e)	Screening of Parents for Clonal Forestry & Hybridization for Higher Productivity	255142.14	353372.00
(f)	Demonstration of Ozone Treatment Technology	226243.00	349194.00
(g)	Biopolymeric approach for improvement of	390903.00	371488.00
(h)	Study on Delignification of Agro residu	2273282.00	441601.00
(i)	A Review study of ITS-HS classification	0.00	60441.00
(j)	Bacterial cellulose production for Driver	451857.00	163784.00
(k)	Land Application of treated effluent	537779.00	413348.00
(l)	Studied on Alternate Auto Causticization	642256.00	232780.00
	TOTAL	76527439.89	73888792.40

As per our separate report of even date.

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 9 - FEES/SUBSCRIPTION'S

Sl.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
1	Membership fees	72500.00	35000.00
2	Training fees	919750.00	195000.00
	TOTAL	992250.00	230000.00

As per our separate report of even date.

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 10 - INTEREST EARNED

Sl.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
	<u>INTEREST EARNED</u>		
1	On Term Deposite with schedule Bank	1923664.73	2963896.87
2	On Loan to staff	67553.00	73272.00
	TOTAL	1991217.73	3037168.87

As per our separate report of even date.

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 11 - OTHER INCOME

Sl.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
	OTHER INCOME		
1	Hostel rent	260150.00	266000.00
2	Lease rent	62500.00	74500.00
3	Licence fee	266744.00	264044.00
4	Miscellaneous income	552.79	117701.45
5	Sale of Publication	30000.00	0.00
	TOTAL	619946.79	722245.45

As per our separate report of even date.

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 12 - ESTABLISHMENT EXPENSES

Sl.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
	ESTABLISHMENT EXPENSES		
1	Salary & Allowances	47170659.00	49615186.40
2	CPF Contribution	4372158.00	4513125.00
3	Gratuity Paid	3606259.00	2477977.00
4	Encashment of leave	4479664.00	4900059.00
5	Reimbursement of medical expenses	821220.00	1241461.00
	TOTAL	60449960.00	62747808.40


As per our separate report of even date.

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SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2023

SCHEDULE - 13 - ADMINISTRATIVE EXPENSES ETC

S.No.	PARTICULARS	CURRENT YEAR 2022-23	PREVIOUS YEAR 2021-22
	OTHER ADMINISTRATIVE EXPENSES ETC.		
1	To Lab & Plant Maintenance	4614765.00	4045482.00
2	To Cartage & Freight	75926.00	3350.00
3	To Electricity and water	7670710.00	7104081.00
4	To Repair & Maintenance of Assets	14794473.00	11434805.90
5	To Rent & Taxes	1201880.00	952560.00
6	To Postage & Telephone & Communication	112030.10	127159.25
7	To Printing & Stationery	1911759.00	829022.00
8	To Travelling & Conveyance Exp.	2723428.69	1193604.00
9	To Exp.on Seminar & Workshop	233009.00	5400.00
10	To Membership subscription	59000.00	12000.00
11	To Audit fees	41500.00	41500.00
12	To Hospitality Expenses	251353.00	52342.00
13	To Legal & Professional Exp.	405179.00	515814.40
14	To News Paper Exp.	30138.00	76720.00
15	To Training Expenses	8055.00	1346536.00
16	To Watch & Ward	7093778.00	6840533.00
17	To Bank charges	9152.66	26436.43
18	To Advertisement	65000.00	24114.00
19	To Testing Fee Paid	165180.00	39800.00
20	To Staff Car Maint	944541.00	822462.00
21	To Hindi Diwas Exp.	180177.00	407592.00
22	To Swachh Bharat Abhiyan Exp.	1968229.00	2089998.00
23	To Software Exp. / Expenditure on IT	1025704.20	1133453.00
24	To Paper Ex	17942.00	19930.00
25	To Expenditure on NABL	185086.00	115380.00
26	To Grant in Aid Paid	1664000.00	300000.00
27	To Honorarium	26400.00	82300.00
28	To National Festival	79322.00	63140.00
29	To Plantation & Gardening / Horticulture	55762.00	177702.00
30	To Interest paid on TDS	4610.00	0.00
31	To International Yoga Day	2000.00	0.00
32	To Electrical Consumable	386537.00	333878.00
33	To Consultancy Fee Paid	100000.00	245000.00
	TOTAL	48106626.65	40462094.98

As per our separate report of even date.

FOR Kinra & Associates
CHARTERED ACCOUNTANTS


(Gagan Kinra)
F.C.A., M.Com., LLB
M. No. 425053

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE


DIRECTOR


HEAD (F&A)

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ANNEXURE

Significant Accounting Policies & Notes on Accounts

Overview:

CPPRI is an autonomous organization registered under the Societies Act under the administrative control of Ministry of Commerce & Industry (Govt. of India) vide Government of India Gazette Notification dated 7.8.1979.

Financial Accounts:

The financial statements are prepared on the basis of historical cost convention and the Accounting Policies used in preparation of these financial statements confirm with the Accounting Principles generally accepted in India. The Institute follows the accrual method of accounting.

A. Significant Accounting Policies:

1. Revenue Recognition:

- 1.1 Testing fee is accounted for on accrual basis.
- 1.2 Lease Rent is accounted for on accrual basis.
- 1.3 Government Grant, Institutional fee, Sponsored Project, Membership fee, Training and Registration fees are accounted for on receipt basis.

2. Inventory valuation:

The inventory comprises of stores and spares are valued at cost.

3. Fixed Assets:

Fixed Assets are stated at cost less accumulated depreciation.

4. Depreciation:

- 4.1 Depreciation is provided on written down value methods, as per the rates specified in the Income Tax Act 1961.

5. Government Grants:

Government Grants received to the extent utilized for capital expenditure being added to the capital fund and to the extent utilized for revenue expenditure being treated as income in the income and expenditure account and the un-utilized grant being carried forward. This is not as per the para no.14 of the Accounting Standard (AS-12) relating to Accounting for Government Grants. The Institute was advised to consider the guidelines on the subject in consultation with the concerned organizations /agencies for implementation. The Institute in reply has confirmed that other similar organizations / agencies are also following the same pattern. This point was also discussed by the concerned officer in the training imparted by National Institute of Finance Management, Govt. of India during the course of training.

6. Foreign currency transaction:

Transactions in foreign currency are accounted at the exchange Rate prevailing on the date of transaction in Indian Currency.

B. Notes forming part of Accounts:

1. Information about the activities of the Institute:

The Institute running under the Administrative control of Ministry of Commerce & Industry, Department for Promotion of Industry and Internal Trade (DPIIT), New Delhi is engaged to promote Research and other scientific work connected with Pulp, Paper & Allied Industries to establish and maintain Laboratories, Pilot Plant, and Workshop etc and to edit, print, publish and exhibit books, papers and periodicals bearing upon the said industries. Besides that the Institute also under take Cess funded projects and Sponsored projects from Govt. of India, Government Institutions and other Organizations also.

2. Retirement Benefits:

- 2.1 Provision for Gratuity payable on death/retirement of employees, during this year is Rs. 3606259.00 and for leave encashment is Rs. 4479664.00 payable to them based on accrual basis done by Central Pulp & Paper Research Institute, Saharanpur.

3. Current Assets Loans & Advance:

Management has stated that the current assets, loans and advances have full value on realization in the ordinary course of Business.

4. Corresponding previous year figures have been re-grouped or re-arranged wherever necessary.
5. Total advances stand as on 31.3.2023 is Rs. 11735702.44 excluding advance to staff relates for advance against supply of equipments etc.
6. As per Schedule No.1 of the Balance-sheet, capital fund shows that Grant of Rs. 8345861.00 has been incurred as capital expenditure while as per Schedule No.5 of the Balance-sheet relating to fixed assets shows an addition of Rs.9700226.90 Regarding more capital expenditure of Rs. 1354365.90 it is stated by the management that it is due to adjustment of suppliers bills and from letter of credits in the current year.
7. The management has confirmed that:
 - 7.1 The provisions of all known income, expenditure and liabilities have been made.
 - 7.2 No contingent liability exit on the date of Balance-sheet.
 - 7.3 No significant event has occurred from the date of Balance-sheet and audit.

For Central Pulp & Paper Research Institute



Head (Finance & Accounts)



(DIRECTOR)

**For Kinra & Associates
Chartered Accountants**



(GAGAN KINRA)

F.C.A., M.Com., LLB

M. No. 425053

Date: 28-09-2023

Place: Saharanpur

THE STAFF

SCIENTIFIC STAFF

Scientist-F	Dr. Kawaljeet Singh, M.Sc., Ph.D., M.B.A. Dr. A.K. Dixit, M.Sc., Ph.D.
Scientist E-II	Dr. Shivaker Mishra, M.Sc., Ph.D. (Superannuated on 30.06.2022) Dr. Priti Shrivhare Lal, M.Sc., Ph.D. Smt. Anuradha V. Janbade, M.Sc. Dr. Nitin Endlay, M.Sc., PGDIPM (PG Diploma in Industrial Pollution Management), Ph.D. Dr. Sanjay Tyagi, B.E., M.E., Ph.D. Accredited Energy Auditor Shri. Alok Kumar Goel, M.Sc., Certified Energy Manager
Scientist E-I	Shri. Satya Dev Negi, M.Sc., PGDPPT (PG Diploma in Pulp & Paper Technology)
Scientist B	Dr. Arvind Kumar Sharma, M.Sc., PGDPPT (PG Diploma in Pulp & Paper Technology), Ph.D. Mohd. Salim, M.Sc. Shri Kumar Anupam, B.Tech., M.Tech. Dr. Shubhang Bhardwaj, B.Tech., M.Tech., Ph.D. Dr. Nitin Kumar, B.Tech., M.Tech., Ph.D. Dr. Jitender Dhiman, M.Sc., Ph.D.

TECHNICAL & SUPPORTING STAFF

Technical Officer E-1	Shri. N.K. Naik, Diploma in Engineering (Industrial Electronics)
Technical Officer-B	Shri Pankaj Kumar Goley, B.Tech., (Electrical Engineering)
Library Officer –B	Smt. Sarita Sharma, M.A., MLISc.

Technical Grade VI

Shri Dushyant Kumar

Shri Soban Singh (Superannuated on 30.04.2022)

Shri Gopal Dutt (Superannuated on 30.08.2022)

Shri R.K.Kapoor

Shri Gopal Singh

ADMINISTRATIVE AND FINANCE STAFF

Director

Dr. M.K. Gupta, M.Sc., Ph.D.

Section Officer

Shri H. C. Pandey, M.Com (Superannuated on 31.03.2023)

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Technical Review

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