



के. रे. बो.-केन्द्रीय तसर अनुसंधान एवं प्रशिक्षण संस्थान, राँची- 835303
CSB-CENTRAL TASAR RESEARCH AND TRAINING INSTITUTE,
RANCHI- 835303



**MINUTES OF 72nd MEETING OF THE RESEARCH COUNCIL (RC) OF CSB-CTR TI,
RANCHI HELD ON 20th DECEMBER, 2024**

The 72nd meeting of Research Council (RC) of CSB-Central Tasar Research and Training Institute was held on 20th December, 2024 at the Institute under the Chairmanship of Dr. N.B. Chowdary, Director, CSB-CTR TI, Ranchi to evaluate the new project proposals and to review the ongoing & concluded projects, TOTs, CBT and ECP programmes. At the outset, Dr. Jitendra Singh, Scientist-D & In-charge, PMCE Division, extended warm welcome to Dr. N. B. Chowdary, Chairman, Research Council and scientists of the Institute and its Nested Unit. List of the participants is appended as Annexure-1.

Dr. N.B. Chowdary, Chairman, Research Council, welcomed all the scientists of the Institute and its Nested Unit. In his opening remarks, he emphasized and advocated the scientists to bring some noticeable impact in field for promotion of tasar. He also expressed that in view of Annual Action Plan (2024-25) target, especially the young scientists should come-up with new line of research and focus on potential areas where the technologies can be percolated and adopted more easily by the stakeholders for better development of tasar. Later the meeting proceeded as per the agenda by Dr. Jitendra Singh, Scientist-D, PMCE Division.

Agenda No.1: Confirmation of the previous RC Meeting Minutes

The Minutes of 71st R.C. meeting was circulated to the Scientists of the Institute and its Nested Unit vide Email dated 14.11.2024. Since no comments/suggestions have been received so far, the Minutes may be confirmed.

Agenda No. 2: Review of Action Taken of the recommendation / decisions of the previous RC meeting

The follow-up action taken on the decisions/recommendations of the previous meetings were presented by Dr. Jitendra Singh, Scientist-D & In-charge PMCE Division. While approving the action taken report, the Chairman made the following decisions/suggestions.

Concluded Pilot Studies:

1. [CTR&TI/HPI/PS-30]: Comparative efficacy of nutrient formulations for improvement of leaf yield & quality of tasar host plantation. (Sept. 2023-February, 2024) [PI: Smt. Susmita Das, Scientist-D]

Chairman, suggested PI to submit the final report and patent application to the PMCE division for further action.

[Action: Smt. Susmita Das, Scientist-D]

2. [CTR&TI/SSRT/BP/32]: Efficacy of Vijetha and Ankush for body disinfection of tasar silkworm. (Sept. 2023-February, 2024) [PI: Dr. K. Jena. Scientist-D]

The committee suggested PI to submit final report and publish at least one popular or research article in NAAS rated/Impact factor journal.

[Action: Dr. K. Jena, Scientist-D]

3. [CTR&TUSSRT/BP/30]: Preparation and characterization of Chitosan sheet/nano fiber mat (Sept. 2023- February, 2024) [PI: Dr. K. Jena, Scientist -D]

The chairman suggested PI to submit concluded report and publish at least one popular or research article in NAAS rated/Impact factor journal.

[Action: Dr. K. Jena, Scientist-D]

4. [CTR TI/PCT/PS32]: Modification of existing softening technique followed for peduncle for better yarn quality (Jan, 2024- June, 2024) (PI: Mr. Ashu Kumar, Scientist-B)

The committee suggested PI to submit concluded report and publish at least one popular or research article in NAAS rated/Impact factor journal.

[Action: Mr. Ashu Kumar, Scientist-B]

5. [CTR TI/PCT/PS33]: Development of alternative ways of producing Ghicha tasar yarn (Jan, 2024- June, 2024) (PI: Mr. Ashu Kumar, Scientist-B)

The committee suggested PI to publish at least one popular or research article in NAAS rated/Impact factor journal and advise to submit the concluded report to PMCE division.

[Action: Mr. Ashu Kumar, Scientist-B]

6. [CTR&TI/FMA/PS-36] Characterization and evaluation of propagation traits, floral biology, morphological, biochemical and reproductive parameters in the identified improved accessions of *Terminalia arjuna*. (May, 2024-October 2024)
(PI: Dr. Shreenath Y.S, Scientist-B)

The PI presented the detailed observations and results from the concluded pilot study. Chairman advised PI to review the results thoroughly before submission of final report to PMCE Division.

[Action: Dr. Shreenath Y.S, Scientist-B]

7. [CTR TI&TI/FMA/PS/35] Isolation and characterization of culturable bacterial communities associated with salivary glands of *Forcipomyia* spp. an *ectoparasite* on *Antheraea mylitta*. (May, 2024 – October 2024) (PI: Dr. S.M Majumdar, Scientist-C)

Dr. H.S. Gadad, Scientist-C and CI of the project presented the concluded pilot study. Chairman advised PI for timely submission of concluded pilot study report in RMIS10 to PMCE Division by 15.01.2025 and publish at least one research paper from conclude pilot study.

[Action: Dr.S. M. Majumdar, Scientist-C]

8. [CTR TI/FMA/PS/34] Enhancement of sexual and asexual reproduction in Asan [PI: Mr. Haragopal Dutta, Scientist-B]

Mr. Haragopal Dutta, Scientist-B presented the findings of the pilot study and the Committee suggested to review the methodology with IF rated journal and Submit final report to PMCE Division.

[Action: Mr. Haragopal Dutta, Scientist-B]

Evaluation of New Research Proposals:

- 1. Study on lab to land gaps of tasar technologies in major tasar growing areas** [PI: Dr. Vishal Mittal, Scientist-D]

RCS has considered concept note with some suggestions and accordingly it was advised to revise proposal as per the RCS comments and submit project proposal in RMIS-02 to PMCE Division by 10.01.2025.

[Action: Dr. Vishal Mittal, Scientist-D]

- 2. Recurrent selection for high fecundity line in Tropical Tasar silkworm** [PI: Dr. Nidhi Sukhija, Scientist-B]

RCS has considered concept note with major correction and accordingly it was advised to revise proposal as per the RCS comments and re-submit project proposal in RMIS-01 to PMCE Division by 10.01.2025 for further action.

[Action: Dr. Nidhi Sukhija, Scientist-B]

- 3. Systematic identification of food plant metabolites controlling expression of gene involved in silk synthesis in *Antheraea mylitta* D.** [PI: Dr. Nidhi Sukhija, Scientist-B]

RCS has considered concept note for DBT funding with some suggestions and accordingly it was advised to revise proposal as per the RCS comments and submit it to PMCE Division by 10.01.2025 and after confirmation from the Competent Authority, submit proposal to DBT for funding.

[Action: Dr. Nidhi Sukhija, Scientist-B]

- 4. Evaluation of the efficacy of identified formulations for the management of Cytoplasmic Polyhedrosis Virus in *Antheraea mylitta*.** [PI: Dr. Sruthy, K. S, Scientist-B]

RCS has considered concept note with some suggestions and accordingly it was advised to revise proposal as per the RCS comments and submit project proposal in RMIS-02 to PMCE Division by 10.01.2025.

[Action: PI: Dr. Sruthy, K. S, Scientist-B]

- 5. Nutrient management in tasar culture through nano fertilizers** [Dr. Shantakar Giri, Scientist-D, RSRS]

Dr. Shantakar Giri, Scientist-D, RSRS, Dumka submitted the revised RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

[Action: PI: Dr. Shantakar Giri, Scientist-D, RSRS, Dumka]

- 6. Development of Oak Tasar rearing Technology for early spring crop** [PI: Mr. A.S. Verma, Scientist-D, RSRS, Bhimtal]

Committee suggested PI to submit project proposal to the PMCE division and eSubMIS by

10.01.2025 for further action.

[Action: Mr. A.S. Verma, Scientist-D, RSRS, Bhimtal]

7. Host-Pathogen Interaction by Genome-Wide Expression profiling of *Antheraea mylitta* Immune Genes in Response to *Nosema mylitta*. [PI: Dr. Divya Rajawat Scientist-B]

RCS has considered concept note for DBT funding with some suggestions and accordingly it was advised to revise proposal as per the RCS comments and submit it to PMCE Division by 10.01.2025 and after confirmation from the Competent Authority, submit proposal to DBT for funding.

[Action: Dr. Divya Rajawat, Scientist-B]

8. Socio-economic impact assessment of tasar sericulture technologies in major tasar growing areas [PI: Dr. Arnab Roy, Scientist-B]

RCS considered concept with condition to merge concept note with Dr. Vishal Mittal Scientist-D project proposal entitled “Study on lab to land gaps of tasar technologies in major tasar growing areas proposal” and make it as one of objective of the project, accordingly revised it.

[Action: Dr. Arnab Roy, Scientist-B]

9. An investigation on consumer behaviour and Preferences towards Tasar apparel [PI: Dr. Arnab Roy, Scientist-B]

Committee suggested PI to kept proposal on hold.

[Action: Dr. Arnab Roy, Scientist-B]

Agenda No. 3: New concept notes for approval:

1. Assessment of the Efficacy of Commercial Drug Formulations against Pebrine in Tasar Silkworm. [PI: Dr. Sruthy, K. S., Scientist-B]

Dr. Sruthy, K. S., Scientist-B presented the research project proposal. Committee advised PI to revise the first objective and replace the Dr. H.S Gadad, Sc.-C, as Co-Investigator. Research Council approved the concept and advised to include all suggestions before submission in eSubMIS. PI also advised to submit revised project proposal to the PMCE division by 10.01.2025 for further action.

[Action: Dr. Sruthy, K. S., Scientist-B]

2. Comparative Analysis of physical and chemical properties of Oak Tasar, Korean Tasar, Muga and Tropical Tasar Silk: A Study on Colour, Strength, Fineness, and Durability [PI: Mr. Ashu Kumar, Scientist-B]

Mr. Ashu Kumar, Sc.-B presented the research project proposal. Committee suggested PI to include mulberry silk also in the objectives and revise the title. Committee considered it for pilot study and advised to submit revised project proposal to the PMCE division by 05.01.2025 for further action.

[Action: Mr. Ashu Kumar, Scientist-B]

Agenda No. 4: Review on concluded projects Concluded Project (as PI): Nil

Agenda No. 5: Progress of Ongoing projects

1. **[PIB 04009 SI]** Evaluation of identified hybrids of *Terminalia arjuna* x *T. tomentosa* and drought tolerant *T. arjuna* for their suitability in different tropical tasar silkworm rearing regions. (October 2021 - September 2026)

Dr. Aparna Kopparapu, Scientist-C presented the progress of the project. The committee suggested to conduct better statistical analysis of the findings of the projects

[Action: Dr. Aparna Kopparapu, Scientist-C & PI]

2. **[PPA 04010 CN]** Region and season specific selection of pruning and brushing schedule for tasar food plants and silkworm protection. (February 2022-January 2025)

Dr. Jitendra Singh, Scientist-D presented the progress and committee took note the progress.

[Action: Dr. Jitendra Singh, Scientist-D & PI]

3. **[ARP 04012 SI]** Developing ectomycorrhizal bio-inoculants for improving survival and leaf yield of *Terminalia arjuna* and *T. tomentosa*. (Feb. 2022- Jan.2026)

Dr. Aparna Kopparapu, Scientist-C presented the progress and committee suggested PI to ensure progress of the project as per mile stone.

[Action: Dr. Aparna K., Scientist-C & PI]

4. **[SIP 04022 SIC]** Impact of weather change on tasar food plants and silkworm (March, 2024 - February, 2027).

Dr. Jitendra Singh, Scientist-D presented the progress and committee suggested PI to hasten the process to purchase the weather station.

[Action: Dr. Jitendra Singh, Scientist-D & PI]

5. **[PPA 04023 SIC]** Identification of suitable package of practices for establishment of *Lagerstroemia speciosa* (Jarul) for quality leaf production (March, 2024 – February, 2029).

Smt. Susmita Das, Scientist-D presented the progress and committee took note the progress.

[Action: Smt. Susmita Das, Scientist-D]

6. **[PPA 04024SIC]** Effect of different plant spacing and pruning heights on chawki leaf productivity of tasar host plants (*Terminalia arjuna*, *T. Tomentosa* and *Lagerstroemia speciosa*) and chawki silkworm rearing. (March 2024 – February, 2027)

Dr. Harendra Yadav, Scientist-C presented the progress and committee took note the progress.

[Action: Dr. Harendra Yadav, Scientist-C]

7. **[AIE 04004 CN]** Study on existence of tropical tasar silkworm eco-races and their

subsist places with the help of geospatial technology. (March, 2020- February 2023 extended Feb, 2025)

Dr. Jitendra Singh, Scientist-D presented the progress and committee suggested PI to complete the project within extended period.

[Action: Dr. D.I. G. Prabhu, Scientist-C & PI]

8. **[ARE 04011 MI]** Diversity, yield loss and management of predatory wasps attacking *Antheraea mylitta* Drury [February 2022- January 2025)

Dr. H.S. Gadad, Scientist-C presented the progress of project and chairman suggested to explore the effective chemical as a recommendation for pest management.

[Action: Dr. H. S. Gadad, Scientist-C & PI]

9. **[APR 04015CN]** Documentation and Validation of Indigenous Technical Knowledge (ITKs) in Tropical tasar Zone (December-2022 to November-2025)

Dr. Jagadajyothi Binkdakatti, Scientist-D & PI of project presented the progress and committee took note the progress.

[Action: Dr. Jagadajyothi Binkdakatti, Scientist-D & PI]

10. **[ARP04016M1]** Tasar Silkworm Disease Monitoring and Management in North and Central states of India (March, 2023-Feb, 2028)

Dr. J.P. Pandey Scientist-D & PI of the project presented the progress and committee took note the progress. PI was suggested to explore the quality control measures for disposal of disease infected larvae/moth and advised to discuss with Soil Science Section.

[Action: Dr. J.P. Pandey Scientist-D, Scientist-C & PI]

11. **[A1B04017MI]** Recurrent Selection and Multiplication of Thermo-Tolerant Line (s) of Tropical Tasar Silkworm (March, 2023-Feb, 2026)

Dr. H.S. Gadad, Scientist-C presented the progress of project and committee suggested PI to ensure project running as per milestone.

[Action: Dr. I. G. Prabhu, Scientist-D & PI]

12. **[AIB 04018 MI]:** In situ Conservation of Modal Ecorace of Tasar Silkworm in Odisha (March, 2023-Dec, 2027)

Dr. H.S. Gadad, Scientist-C presented the progress of project and committee suggested PI to complete the signing of MoA between different organizations.

[Action: Dr. I. G. Prabhu, Scientist-D & PI]

13. **[AIB 04019 MI]:** In situ Conservation of Raily Ecorace of Tasar Silkworm in Chhattisgarh (March, 2023-Dec, 2027)

Dr. H.S. Gadad, Scientist-C presented the progress of project and committee suggested PI to complete the signing of MoA between different organizations.

[Action: Dr. H.S.Gadad, Scientist-C & PI]

14. **[AIB 04020 MI]:** In situ Conservation of Sarihan Ecorace of Tasar Silkworm in Jharkhand (March, 2023-Dec, 2027)

Dr. H.S. Gadad, Scientist-C presented the progress of project and committee

suggested PI to ensure project running as per milestone.

[Action: Dr. S. Giri, Scientist-D. RSRS, Dumka & PI]

15. [CEM 04021 MNC]: Evaluation of technologies and machines developed in tasar post cocoon technology (March 2024 – February, 2026).

Shri. Ashu Kumar, Scientist-B presented the progress and committee took note of the progress. The PI was advised to fine tune the existing technologies and try to arrange one wet reeling machine for the institute.

[Action: Shri Ashu Kumar, Scientist-B & PI]

16. [BPC 04025 SNC] Management of type II diabetic (T2D) condition through tasar sericin (March 2024 – September, 2026). (PI: Dr. K. Jena, Scientist-D)

Dr. K. Jena, Scientist-D & PI of the project presented the progress and committee took note of the progress.

[Action: Dr. K.Jena, Scientist-D & PI]

17. [BPS 04026 SNC] Studies on nutraceutical properties of silkworm pupae oil and development of a low-cost combination of vanya and mulberry pupae meal based feed for carp broodstock, and cultivable aquatic species (March 2024 – February, 2026) (PI: Dr. K. Jena, Scientist-D)

Dr. K. Jena, Scientist-D & PI of the project presented the progress and committee took note of the progress.

[Action: Dr. K.Jena, Scientist-D & PI]

18. [AIT 04026 SIE] Development of KASP Based SNP Barcoding System for the Molecular Identification of Tropical Tasar Silkworm Ecoraces [PI: Dr. I. G. Prabhu, Scientist-D]

Dr. Jitendra Singh, Scientist -D presented the progress of the project and the Committee noted the progress

[Action: Dr. I. G. Prabhu, Scientist-D & PI]

19. [AIT04028SNE] : Inflatable mucoadhesive vaginal tablet coin (VTC) for instant spermicidal action as local vaginal contraceptive and microbicide (PI: Dr. K. Jena, Scientist-D)

Dr. K. Jena, Scientist-D & PI of the project presented the progress and committee took note of the progress.

[Action: Dr. K.Jena, Scientist-D & PI]

20. **Ongoing Projects as Co-PI**

[SRP08012MNC] Development of a Rapid Antigen Test Kit for Diagnosis of Cytoplasmic Polyhedrosis in Vanay Silkworms (*Antheraea assamensis*, *A. mylitta* and *A. proylei*) (Collaboration with SBRL) (February 2024- January 2026)

Dr. H.S. Gadad, Scientist-C presented the progress and committee took note of the progress.

[Action: Dr. H.S. Gadad, Scientist-C & PI]

AGENDA NO. 6: PROGRESS OF PILOT STUDIES/ PROGRAMME OF WORK

A. Ongoing Pilot Studies:

1. [CTRRT&TI/BSMTC/PS/40] Studies on standardizing techniques for preservation of Diapausing nucleus Seed cocoons and Egg production in basic seed Grainage [PI: K. S. Prakash, Scientist-D., Scientist-D, BSMTC R.C Varam, AP]

Dr. H.S. Gadad, Scientist-C presented the progress and submit the final report to PMCE Division.

[Action: K. S. Prakash, Scientist-D, BSMTC, R.C Varam, AP]

2. [CSB-CTRRTI/2024-25HP/PS/02] Design & Development of Conveyor Belt for Tasar Silkworm Pebrine Identification System (October 2024 –March, 2025) [PI: Ms. Susmita Das., Scientist-D]

Ms. Susmita Das., Scientist-D presented the progress and committee took note of the progress.

[Action: Ms. Susmita Das., Scientist-D]

3. [CSB-CTRRTI/2024-25HP/PS/01] Development of a counting machine for tasar cocoons (October 2024 –March, 2025) [PI: Ms. Susmita Das., Scientist-D]

Ms. Susmita Das., Scientist-D presented the progress and committee took note of the progress.

[Action: Ms. Susmita Das., Scientist-D]

4. [CTRRTI/SEEM/PS/38] An analysis of the causes of low tasar raw silk production (July 2024- December, 2024) [PI: Dr. Jagadajyothi Binkdakatti ., Scientist-D]

Dr. Jagadajyothi Binkdakatti, Scientist-D presented the findings of the pilot study. PI was advised to collect the state wise data related to tasar culture from Statistical Section, CO-CSB, Bengaluru and submit the final report to PMCE Division.

[Action: Dr. Jagadajyothi Binkdakatti ., Scientist-D]

5. [CTRRTI/BP/PS/41] Exploring the Feasibility of Rearing of Tasar Silkworm on Lac Food Plants: Implications for Sustainable Silk Production (July 2024- December 2024) [PI: Dr. K. Jena., Scientist-D]

Dr. K. Jena., Scientist-D presented the progress of the project and committee suggested to submit the final report to PMCE Division.

[Action: Dr. K. Jena., Scientist-D]

6. [CTRRTI/BP/PS/39] Eco Friendly Bioplastic Production Using Tasar Silk Eggshell: A Sustainable Approach (July 2024-December 2024) [PI: Dr. K. Jena., Scientist-D]

Dr. K. Jena., Scientist-D presented the progress of the project and committee suggested to submit the final report to PMCE Division.

[Action: Dr. K. Jena., Scientist-D]

7. CTR&TI/BT/PS/37: Possibilities of indoor rearing in Tropical Tasar Silkworm *Antheraea mylitta* (July 2024-December 2024) [PI: Dr. Divya Rajawat, Scientist-B]

Divya Rajawat, Scientist-B presented the progress of the project and committee suggested to submit the final report to PMCE Division.

[Action: Dr. Divya Rajawat, Scientist-B]

8. Assessment of Arjun plants growth and yield parameters in different plant spacing [PI: Dr. Harendra Yadav, Scientist-C]

Dr. Harendra Yadav, Scientist-C presented the progress of the pilot study. Committee suggested to explore the possibilities to deploy drip irrigation in the farm.

[Action: Dr. Harendra Yadav, Scientist-C &PI]

9. Metabolite profiling of tasar food plants and silkworms to study their potential impact on silk production. [PI: Dr. Nidhi Sukhija, Scientist-B]

Dr. Nidhi Sukhija, Scientist-B presented the progress of the pilot study.

[Action: Dr. Nidhi Sukhija, Scientist-B & PI]

10. Utilizing Tasar Host Plant Wood Waste for Cellulose Production: A Green Approach [PI: Mr. Haragopal Dutta, Scientist-B]

Mr. Haragopal Dutta., Scientist-B presented the progress of the pilot study and committee suggested to develop the cellulose based products

[Action: Mr. Haragopal Dutta., Scientist-B &PI]

11. Evaluation of Efficacy of Commercial Drug Formulations against Pebrine in Tasar Silkworm (*Antheraea mylitta*) [PI: Dr. Sruthy, K. S., Scientist-B]

Dr. Sruthy, K. S., Scientist-B presented the progress of the pilot study.

[Action: Dr. Sruthy, K. S., Scientist-B &PI]

B. On-going Programme of Work (of continuous nature)

PI presented the progress of Programme of Work.

[CTR&TI/HPP/POW-02] Farm Management & Developmental works

Dr. Harendra Yadav, Scientist-C presented the progress of farm management and committee took note the progress.

[PI: Dr. H. Yadav, Scientist-C]

AGENDA NO. 7: TRIAL OF TECHNOLOGIES (OSTs/ OFTs)

Dr. Jagadajyoti Binkadakatti., Scientist-D of SEEM Division presented the progress of TOTs. Committee took note of the progress. The progress was found to be satisfactory.

[Action: Dr. Jagadajyoti Binkadakatti, Scientist-D]

AGENDA NO. 8: EXTENSION (ECP) AND OTHER PROGRAMMES

Dr. Vishal Mittal, Head, SEEM Division presented the progress of ECPs. The council took note of the progress. The progress was found to be satisfactory.

[Action: Dr. Vishal Mittal, Scientist-D]

AGENDA NO. 9: TRAINING (CBT) AND OTHER PROGRAMMES

Dr. Vishal Mittal, Scientist-D and Head Training Division presented the progress of CBT. The committee took note of the progress. The progress was found to be satisfactory. It was advised to expedite the establishment of new SRC as per the set milestones.

[Action: Dr. Vishal Mittal, Scientist-D]

AGENDA NO. 10: DISCUSSION ON GENERAL COMMENTS/SUGGESTIONS OF RC/ RAC

Chairman appreciated the efforts of all the Scientists for their active deliberations and meaningful interaction. He highlighted the importance of identification of research priorities in alignment with the needs of the industry and emphasized the need for guidance and timely reorientation. He also opined that the Co-investigators should involve in the project activities actively and so that individual contributions in the form of output significantly reflected. He also expressed concerned about the low utilization of budget for some projects and PI was advised to take necessary action for timely utilization of budget.

AGENDA NO. 11: ANY OTHER POINT WITH PERMISSION OF THE CHAIR

The meeting ended with a vote of thanks to the chair.

Date: 04.01.2025



Dr. N. B. Chowdary,
Director

LIST OF PARTICIPANTS ATTENDED 71th MEETING OF THE RESEARCH COUNCIL (RC) OF CTR&TI RANCHI HELD ON 17th -18th OCTOBER, 2024

1. Dr. N. B. Chowdary, Director, CSB-CTR&TI, Ranchi (Chairman)
2. Ms. Susmita Das, Scientist-D, CSB-CTR&TI, Ranchi
3. Dr. J. P. Pandey, Scientist-D, CSB-CTR&TI, Ranchi
4. Dr. Vishal Mittal, Scientist-D, CSB-CTR&TI, Ranchi
5. Dr. K. Jena, Scientist-D, CSB-CTR&TI, Ranchi
6. Dr. Jitendra Singh, Scientist - D, CSB-CTR&TI, Ranchi
7. Dr. Dr. Jagadajyoti Binkadakatti, Scientist-D, CSB-CTR&TI, Ranchi
8. Dr. Harendra Yadav, Scientist-C, CSB-CTR&TI, Ranchi
9. Dr. H.S. Gadad, Scientist-C, CSB-CTR&TI, Ranchi
10. Dr. Aparna K., Scientist-C, CSB-CTR&TI, Ranchi
11. Dr. Shreenath Y. S, Scientist-B, CSB-CTR&TI, Ranchi
12. Mrs. Divya Rajawat, Scientist-B, CSB-CTR&TI, Ranchi
13. Dr. Arnab Roy, Scientist-B, CSB-CTR&TI, Ranchi
14. Mr. Haragopal Dutta, Scientist-B, CSB-CTR&TI, Ranchi
15. Dr. Sruthy K. S, Scientist-B, CSB-CTR&TI, Ranchi
16. Dr. Nidhi Sukhija, Scientist-B, CSB-CTR&TI, Ranchi
17. Mr. Ashu Kumar, Scientist-B, CSB-CTR&TI, Ranchi