

## **CENTRAL SERICULTURE RESEARCH & TRAINING INSTITUTE, MYSURU**

### **MINUTES OF 49<sup>th</sup> RESEARCH ADVISORY COMMITTEE MEETING HELD ON 17<sup>th</sup> & 18<sup>th</sup> March 2023 AT CSRTI, MYSURU**

The 49<sup>th</sup> Research Advisory Committee meeting of CSRTI-Mysuru was held on 17<sup>th</sup> & 18<sup>th</sup> March 2023 at CSRTI-Mysuru to review the progress of on-going projects, concluded projects, new projects, TOT, Training and extension activities of the Institute and its nested units for the period August 2022 to March 2023. The meeting was Chaired by Dr. Mahadev B. Chetti, Chairman RAC, Vice Chancellor of Sanskriti University, Mathura, Uttar Pradesh and former Vice Chancellor, University of Agricultural Sciences (UASD), Dharwad. The list of the participants is appended as **Annexure -I**.

The meeting started with welcoming the Chairman, Members of RAC and Dr. S. B. Dandin, Former Vice-Chancellor, UHS, Bagalkote, Dr. N. K. Krishna Kumar, DDG-Hort-Science (Retd.) & RAC-Chairman, SBRL Kodathi, Bangalore and representatives from CSTRI, Bangalore as invitees by Dr. Mary Josepha Shery A.V, Sci-D, Director In-charge, and convener of RAC. She also welcomed all the Heads of Divisions/Sections, Scientists and JRFs, SRFs, PAs of the main Institute and all Scientists from RSRs, RECs and REC sub units, who attended the meeting.

The Chairman in his introductory remarks welcomed once again all the members, invitees and the scientists of CSRTI, Mysuru to the meeting. He suggested all the scientists to undertake projects individually at least one project by one scientist which are directly useful to the farmers and silk industry and also opined that each scientist should have a minimum of one publication per year. Further, he highlighted the importance of spending more time in planning rather than doing post mortem and also to limit the number of slides to 10 in each presentation.

#### **1. R&D HIGHLIGHTS OF INSTITUTE AND NESTED UNITS DURING REPORTING PERIOD (AUGUST 2022 to MARCH 2023).**

Dr. Mary Josepha (Shery) A.V, Sci-D, Director In-charge, and convener of RAC made a brief presentation of the R&D highlights of the institute and nested units during the reporting period (August 2022 to March 2023). The Chairman and the committee appreciated the work carried out during the period..

## **2. CONFIRMATION OF THE MINUTES OF 48<sup>th</sup> RAC MEETING HELD ON 28 & 29<sup>th</sup> SEPTEMBER 2022.**

The Research Advisory Committee approved the minutes of the 48<sup>th</sup> RAC meeting as no comments were received from any of the members.

## **3. REVIEW OF FOLLOW-UP ACTION TAKEN ON DECISIONS OF 49<sup>th</sup> RAC MEETING**

The follow-up actions taken on major decisions of the previous meeting was presented by Dr. S. Balasaraswathi, Scientist-D and Head PMCE, the committee expressed satisfaction regarding the follow up action taken.

## **2. REVIEW OF CONCLUDED PROJECTS**

### **1. AIB01004 MI: Development of multivoltine breeds with improved silk quality utilizing indigenous and exotic bivoltine breeds**

**Decision:** K.B.Chandrashekar, Sci-D presented the concluded project and the committee advised to take forward the breed to the field and sensitize the LSPs, reelers and farmers on positive traits of the breeds developed.

**(Action: K.B.Chandrashekar, Sci-D, BBL)**

### **2. AIB 01011 SI - Development of multivoltine foundation crosses for productivity and high silk percentage**

**Decision:** K. B. Chandrashekar, Sci-D presented the concluded project, the committee noted the findings and felt that, as the results are not encouraging it may not be feasible for further large scale trials of the hybrids. However, it was advised to maintain the records of the identified foundation crosses for future use.

**Action: K.B.Chandrashekar, Sci-D, BBL)**

**3.PIC01007SI: Development of protocol for production of medically fit silk (cocoon, sericin & fibroin) for clinical purposes**

**Decision:** Ravindra presented the progress to the RAC and the committee noted the progress. The committee advised to maintain the organic mulberry garden and the hydroponic system developed under the project.

**(Action:** Ravindra, Sci-C, SSC)

**4.BPS 01013 CN: Utilization and diversification of silkworm pupae products for human & animal consumption and composting.**

**Decision:** Y. Thirupathaiah, Sci-C and Vijay Shinde, Senior Technical Officer from CFTRI, Mysore presented the progress to the RAC and the committee noted the progress.

**(Action:** Y. Thirupathaiah, Sci-C, Silkworm Physiology)

**5.PIE-01014SI- Development of Distinctiveness, Uniformity and Stability (DUS) Descriptors for Mulberry (*Morus* spp.) and their Validation - Phase III**

**Decision:** Bhavya M. R. presented the progress to the RAC and the committee noted progress. Committee suggested including only the authorized varieties for DUS testing and assuring the authenticity of the variety while taking for authorization.

**(Action:** Bhavya M. R. Sci-C Mol bio I & DC-Mori)

**6. PPA 01016SI: Development of an agronomical package for tree mulberry cultivation for wide acceptance among the seri-farmers of Southern India**

**Decision:** Dhaneshwar Padhan presented the progress to the RAC and the committee noted the progress. The committee advised to mention economics instead of techno-economics in the documents. The committee also suggested to submit the final report in RMIS-10 by incorporating the leaf yield data per/hectare/year basis instead of per plant basis.

**(Action:** Dhaneshwar Padhan, Sci-C, Agronomy)

### **7.PPF01017SI: Economics of mulberry sericulture in South India**

**Decision:** Raveendra M Mattigatti presented the progress to the RAC and the committee noted the progress.

**(Action:** Raveendra M Mattigatti, Sci-D, SEEM)

### **8. PIN 01018 SI Effect of potassium mobilising bacteria *Frateuria aurentia* on growth and development of mulberry**

**Decision:** N. Dhahira Beevi, Sci-D presented the progress to the RAC and the committee advised to check the leaf area and leaf yield data and incorporate the corrected data in the RMIS-10 report.

**(Action:** N. Dhahira Beevi, Sci-D, RSRS, Salem)

### **9.MOE 01021 SI: Evaluation and popularization of improved technologies developed in the field of mulberry sector for South India**

#### **Component 1: Evaluation of Chawki Feed Supplement Formulation in Commercial chawki rearing centers**

**Decision:** Bhuvanewari, Sci-C presented the progress to the RAC and the committee noted the progress. The committee suggested to reanalyze the data and also to commercialize the formulation. It was also suggested to check the maturation and moulting schedule of the treated larvae and include it in the RMIS-10 report.

**(Action:** Bhuvanewari, Sci-C, S.W.Physiology)

#### **Component 2: Popularization of G11x G19 double hybrid in Kolar region of Karnataka**

**Decision:** Madhusudhan K.N. presented the progress to the RAC and the committee noted the progress. The committee suggested to bring the G11xG19 into seed multiplication channel. The double hybrid may be promoted in Maharashtra where it is well accepted..

**(Action:** Madhusudhan K.N., Sc-D, BBL)

### **Component 3: Evaluation of productive double hybrid, DHP5 at farmers' level**

**Decision:** Meenal R, Sci-D presented the progress to the RAC and the committee felt that the performance of the hybrid is good and to achieve the remaining 30,000 dfls target and the project may be extended by another three months.

**(Action:** Meenal R., Sci-D, Training Division)

### **Component 4: Evaluation of newly developed multiviral diseases tolerant bivoltine hybrid RDIN1**

**Decision:** Satish L., Sci-C presented the progress to the RAC and the committee noted the progress. It was suggested to inoculate the control batches also to compare the disease incidence.

**(Action:** Satish L., Sci-D, S.W.Pathology)

### **Component 5: Evaluation of Cauvery Gold (MV1 × S8): An improved cross breed for cocoon productivity and silk quality**

**Decision:** K. B. Chandrashekar presented the progress to the RAC and the committee noted the progress. RAC committee approved the extension of the project for three months to achieve the target.

**(Action:** K.B. Chandrashekar, Sci-D, BBL)

### **Component 7: Evaluation of robust bivoltine silkworm hybrids suitable for different regions of high temperature and high humidity conditions**

**Decision:** : Meenal R, presented the progress to the RAC and the committee felt that the performance of silk quality of the breed is very poor and hence further trials of the hybrid can be dropped.

**(Action:** Meenal R., Sci-D, Training Division)

## **5. NEW PROJECTS FOR APPROVAL**

### **1. Final yield evaluation of mulberry genotypes for leaf yield under optimal and sub-optimal input conditions**

**Decision:** Tanmoy Sarkar presented the new concept to the RAC and the committee approved the proposal with suggestions. It was suggested to take care for establishment of a rain out shelter. In case of non-availability of the rain out shelter, sub-optimal treatment need to be conducted in the field by following the same experimental design and spacing of the optimal condition.

**(Action:** Tanmoy Sarkar, Sci-C, MBG)

### **2. Development of customized fertilizer for higher mulberry productivity**

**Decision:** R. Mahesh, presented the new concept to the RAC and the committee approved the proposal.

**(Action:** R. Mahesh, Sci-C, Agronomy)

### **3. Studies on Low Budget Natural Farming (LBNF) in Mulberry for sustainability**

**Decision:** C. M. Babu, presented the new concept to the RAC. The committee approved the project with an advise to change the title as “Studies on Natural farming in mulberry for sustainability” and to replace the word techno-economics with economics in the third objective.

**(Action:** C. M. Babu, Sci-D, Agronomy)

### **4. Primary Yield Evaluation for identification of promising mulberry genotypes with enhanced physiological efficiency for higher leaf yield and quality under sub-optimal conditions.**

**Decision:** Gayathri T, presented the new concept to the RAC and the committee approved the proposal for five years with revised budget and a suggestion to change the title as “Identification of promising mulberry genotypes for physiological efficiency and their relationship with yield and

quality under sub optimal conditions” and the objective as “Evaluation of selected genotypes for high yield and quality in mulberry under sub optimal conditions”.

**(Action:** Gayathri T, Sci-C, Mulberry Physiology)

## **6: REVIEW OF PROGRESS OF ON-GOING PROJECTS**

### **1.PIB-3632: Evaluation of superior triploid genotypes for yield and adaptability under varied agro-climatic conditions**

**Decision:** M.K. Raghunath presented the progress. The committee advised to replace the word “tree” with “high bush” and to provide the recommended fertilizers (N:P:K; 350:140:100 Kg/ha/year ) on per plant basis for tree plantation.

**(Action:** M.K. Raghunath, Sci-D, MBG)

### **2.PIE 13001 MI : All India Coordinated Experimental Trials for Mulberry (AICEM) –Phase-IV**

**Decision:** Manjappa presented the progress and the committee noted the progress.

**(Action:** Manjappa, Sci-C, MBG)

### **3.PIE01022SI: Evaluation of promising mulberry genotypes for higher leaf yield and resistance to root rot and root knot diseases in Primary Yield Trial**

**Decision:** Manjappa presented the progress and the committee noted the progress.

**(Action:** Manjappa, Sci-C, MBG)

### **4. PRP-01015 SI ; Identification, evaluation and inclusion of potential antagonistic microbes in Integrated Root Rot Disease Management in Mulberry**

**Decision:** G. S. Aruna kumar, presented the progress to the RAC and the committee noted the progress and also advised to visit the hot spot areas to assess the incidence and conduct the trial of the formulation developed under the project.

(Action: G. S. Aruna kumar, Sci-C, Molecular biology & Mul.Path.)

**5.PIB-3633- Development of highly productive and widely adapted mulberry using exotics and wild germplasm**

**Decision:** G. S. Aruna kumar, presented the progress to the RAC and the committee noted the progress

(Action: G. S. Aruna kumar, Sci-C, Molecular biology & Mul.Path.)

**6.MOE 01021 SI: Evaluation and popularization of improved technologies developed in the field of mulberry sector for South India**

**Component 9: Impact of drip fertigation technology on mulberry productivity**

**Decision:** R. Mahesh, presented the progress to the RAC and the committee noted the progress.

(Action: R. Mahesh, Sci-C, Agronomy)

**7.AIB 01009 MI: Evaluation of new bivoltine silkworm double hybrid TT21xTT56 at farmers level for authorization and commercial exploitation**

**Decision:** The committee noted the progress. The committee suggested to complete the project with in the extended period and to include more reeling data.

(Action: K.N. Madhusudhan,Sci-D,BBL)

**8.AIT-01019-SI: Screening of drugs/Inhibitors to inhibit the PI3K-Akt pathway in *Bombyx mori* for controlling Nuclear Polyhedrosis Virus infection.**

**Decision:** G. Mallikarjuna, presented the progress to the RAC and the committee noted the progress

(Action: Mallikarjuna G, Sci-C, S.W.Pathology)



**9.AIC01023SI: Development of Spectroscopic Tests for Insecticide Resistant Biomarkers in silkworm, *Bombyx mori***

**Decision:** Sathish L, presented the progress to the RAC and the committee advised to repeat the bioassay to detect the effect of sub lethal dose of pesticides.

**(Action:** Sathish L Sci-C, S.W.Pathology)

**10. AIB 01024 MI: Development of productive, autosexing silkworm breeds/ hybrids of *Bombyx mori* L. in egg stage and separation of male silkworm population by optical sorting**

**Decision:** Kusuma L. presented the progress to the RAC and the committee noted the progress and suggested to consider the shape of cocoons and pattern of egg laying during selection for next generation and to present the male and female shell percentage separately.

**(Action:** Kusuma L,Sci-C, BBL)

**11.MTL01025MI -Life cycle assessment of mulberry silk: A National Assessment**

**Decision:** Amit Kumar, presented the progress to the RAC and the committee noted the progress.

**(Action:** Amit Kumar,Sci-C, SSC)

**12.AIE 01026 MI: Evaluation of new bivoltine double hybrid, BFC1xBFC10 at farmers level for authorization for commercial exploitation**

**Decision:** K. B. Chandrashekar presented the progress. The committee noted the progress and appreciated the post cocoon parameters of the field samples having 3A grade silk.

**(Action:** K.B. Chandrashekar, Sci-D,BBL)

**13.BPS 01027 CN: Immunomodulatory and Adjuvant effects of Chitosan Nanoparticles Extracted from *Bombyx mori***

**Decision:** Madhusudhan K.N, presented the progress to the RAC and the committee noted the progress

**(Action:** Madhusudhan K.N, Sci-D, BBL)

**14.BPS 01028 CN: Value Addition of Cellulose and Chitin Isolated from Sericulture Waste for Advanced Packaging Applications**

**Decision:** Madhusudhan K.N, presented the progress to the RAC and the committee noted the progress

**(Action:** Madhusudhan K.N, Sc-D, BBL)

**15.ARE01029MI : Recommendations of novel fungicidal and insecticidal applications for mulberry**

**Decision:** S. Mahiba Helen, presented the progress to the RAC and the committee noted the progress

**(Action:** S. Mahiba Helen,Sci-D,PML)

**16.PRE01030CN : Development of an integrated management package for the broad mite, *Polyphagotarsonemus latus* (Acari: Tarsonemidae), in mulberry**

**Decision:** S. Mahiba Helen, presented the progress to the RAC and the committee suggested to explore the possibility of including Dr.Chinna Madegowda, Prof.. UAS,GKVK, Bangalore in the ongoing project.

**(Action:** S. Mahiba Helen,Sci-D,PML)

**17. MOE01031CN Technology Demonstration and Evaluation of Rearing Performance of Bivoltine Mulberry Sericulture in Navasari District (Gujarat)**

**Decision:** Jadhav Ashok Limbaji, presented the progress to the RAC and the committee advised to recheck the cocoon weight under the trial rearing.

(Action: Jadhav Ashok Limbaji, Sci-C, REC, Parbhani)

**18.AIB 01032 SI: Validation of silk regulators - ubiquitin and mannosidase among silkworm breeds**

**Decision:** Kusuma L, presented the progress to the RAC and the committee noted the progress

(Action: Kusuma L, Sci-C,BBL)

**19.ARP-01033CN: Mulberry Silkworm Disease Monitoring and Management in Southern States of India.**

**Decision:** G. Mallikarjuna, presented the progress to the RAC and the committee noted the progress.

(Action: Mallikarjuna G, Sci-C, S.W.Pathology)

**Item No. 7. Progress of RSRSs, P4 Hassan and SSBS, Conoor**

**RSRS, Kodathi**

V. Lakshman, Sci-D presented the progress of activities of CBT, ECPs and CPP activities and the committee noted the progress.

(Action: V. Lakshman, Sci-D, RSRS Kodathi)

**RSRS, Ananthapur**

K.P. Kiran Kumar, Sci-D presented the progress of activities of CBT, ECPs and CPP activities and the committee noted the progress.

( Action : Srinath , Sci.-D, RSRS Ananthapur)

**SSBS Conoor**

V. Vijay, Sci-C presented the progress of activities of the station and the committee noted the progress. It was suggested to invite scientists from P3 station during cocoon selection.

(Action: V. Vijay, Sci-C, SSBS Conoor)

**P4 Hassan**

Dayananda, Sci-D presented the progress of activities of the station and the committee noted the progress. It was suggested to invite scientists from P3 station during cocoon selection.

(Action: Dayananda, Sci-D, P4 Hassan )

## **REC, Maddur**

Dr. Shivakumar, Sci-C, presented the progress and the committee noted the consistency in cocoon yield in clusters. The committee suggested to present the progress with a small map indicating clusters. It was also suggested to analyze the data and to present season wise data.

**(Action: Shivakumar, Sci-C, REC, Maddur)**

## **REC Parbhani**

Mr. Ashok Jadav Limbaji, Sci-C, presented the progress and the committee noted the progress. The committee suggested him to explore the possibility of expanding Mulberry to Bundelkhand region to up lift the economic conditions of farmers in the region.

**(Action: Ashok Jadav Limbaji, Sci-C, REC, Parbhani)**

## **Item No.8. Extension and other programmes**

R. Bhagya, Sci-D, SEEM presented the progress of extension division and the committee noted the progress. The committee suggested to present the specific issues of the extension centres along with progress in the next meeting.

**(Action: Sci-D,SEEM)**

## **Item No. 9. Training (Capacity Building and Training) and other programmes**

R. Meenal, Sci-D presented the progress of the Training Division. The committee noted the achievements.

**(Action: Sci-D, Training Division)**

## **Item No. 11. Any other points for discussion**

### **1. Top challenges and Opportunities:**

As per the RCC suggestion, the committee elaborately discussed and re drafted the top challenges and Opportunities as follows:

## **Challenges**

- Making bivoltine sericulture more successful in humid areas
- Mechanization to make sericulture more labour saving and productive
- Organic plant protection measures
- Methods to detoxify the pesticide residues in the soil for taking up sericulture
- Outbreak of new pests and diseases
- Lack of area for further horizontal expansion of mulberry

## **Opportunities**

- Use of Sericulture by-products in pharma and bio technology
- Developing a sustainability index
- Inter institutional collaboration
- Quantification of impact and impact analysis of CSRTI
- Main streaming silk and blended silk on the map of world fabric
- By-product utilization for human and animal consumption
- Mulberry sericulture a role model for other silk such as eri, muga and tasar
- Focusing on tree mulberry cultivation and its future prospects..

The committee suggested all the scientists to present the ATR in at least one slide addressing the challenges and opportunities in the next RAC. It was also suggested to the Bio-technologists and Molecular biologists of the institute to take up study on war footing basis on the non-spinning syndrome and its cause as it is a common problem expressed by farmers all over south India and also suggested to have tree mulberry plantation as the part of Integrated Farming system.

**(Action: All Scientists)**

## **Concluding remarks by RAC Chairman and members**

### **Director (Tech)**

He advised to make brief and clear presentation and also advised to replace old recommendations with new recommendations in the pamphlets released by CSRTI-Mysuru.

**Director NSSO**

He suggested that, to enhance the productivity more care must be given for maintenance of the mulberry garden and to take up projects based on the challenges identified. It was also suggested to increase the number of publications and to contribute papers in IJS regularly. It was advised to make videos on Integrated Farming Models practiced by progressive farmers.

**Dr.N.K. Krishnakumar, RAC Chairman SBRL Kodathi, Retd.DDG (Horti.)**

He opined that a mega textile park is being established by Government of Karnataka and CSRTI-Mysuru can explore the possibilities in making use of the above facilities. He also suggested to take up Inter disciplinary research projects in future.

**Dr.S.B.Dandin, Ex-VC (Retd.), UHS Bagalkote, RCC Member – Invitee**

He expressed his concern that the reporting of cocoon yield per 100 dfls at field level is misleading. The committee felt that there is a need for this institute to follow international standards for quantifying the cocoon yield per grams of eggs rather than Yield/100 dfls. In this regard Chairman suggested Dr. S. B. Dandin and Dr. H. K. Basavaraj to provide one page note on background of the issue and suitable guidelines along with proper justification to RCC for taking final decision on the issue. He advised the scientists to take up need based research projects .

**Dr. H. K. Basavaraja, Retd. Director (I/C), CSB, Member**

He suggested to consider the consistency in yield performance as one of the criteria for evaluation of new breeds and for maintenance and multiplication of P3 and P4 seeds the recommended methodology has to be followed strictly. It was also advised to provide suggestions to the farmersto handle the pesticide residue effect. He suggested to come out with biotechnological tools with field applications.

### **DOS, Tamil Nadu Representative**

He suggested to come out with need based projects especially on development of disease resistant mulberry varieties and silkworm races. He also opined to popularize Tree mulberry Cultivation technology. He opined to make effort for introducing uniform chawki charges all over South India.

### **Scientist-D, RCS**

He has suggested to improve PPT presentation with a uniform format.

### **Dr. Mahadev B. Chetti, Chairman RAC, Vice Chancellor of Sanskriti University, and former Vice Chancellor, University of Agricultural Sciences (UASD) Dharwad.**

He suggested that before releasing hybrids, sustainability and stability of their characters should be ascertained and the publications made in Indian Silk should be considered while assessing scientists achievements to promote Indian Silk magazine. He also opined to extend the sericulture activities to Bundelkhand region in Madhya

Pradesh which is a potential area. He advised scientists to get involved in teaching programmes in universities. He has appreciated the efforts of CSRTI, Mysuru in conducting successfully Seri Vigyan Day and Resham Krishi Mela.

The meeting ended with vote of thanks to the chair.

  
Chairman RAC

#### Annexure-I

#### List of Members attended 49<sup>th</sup> Meeting of RAC held on 17<sup>th</sup> & 18<sup>th</sup> March 2023

| #  | Name of the Member  |
|----|---|
| 1  | Dr. Mahadev B.Chetti, Vice Chancellor, Sanskriti University, Mathura. Former Vice Chancellor,UAS, Dharwad- Chairman |
| 2  | Dr.Mary Josepha Shery (A.V) Sci-D & Director(I/C) -Member Convener  |
| 3  | Dr. B.T. Sreenivasa, Dirrctor (Tech.) CSB, Bengaluru - Member   |
| 4  | Dr. S. M.Moorthy, Director, NSSO, Bengaluru - Member  |
| 5  | Dr. H. K. Basavaraja, Director (I/C) (Rtd.), CSB, Bengaluru -Member   |
| 6  | Dr. S. B. Dandin, Ex-VC (Retd.), UHS Baghalkote - Invitee   |
| 7  | Dr. N. K. Krishna Kumar, Retd.DDG (Horti.) - Invitee  |
| 8  | L.Chanrashekar, JD (HQ), representing DoS TN  |
| 9  | Dr. G.V.Kalpana, Sci-D, P3,Mysuru   |
| 10 | Dr. Kariyappa representing Director, CSTRI Bengaluru - Invitee  |
| 11 | Dr. Sheik Nazeer Ahmed Saheb, Sci-D , RCS, CSB, Bengaluru - Member  |
| 12 | Devendra, AD (DOS, Mysuru), Representing DoS Karnataka -Member  |



**List of participants of Institute & Nested units attended 49<sup>th</sup> Meeting of RAC**

| #  | Name & Designation (In person)                | #  |  |
|----|---|----|--|
| 1  | Dr. S. Balasaraswathi Sci-D CSRTI, Mysore     | 31 | Mrs. Bhavya M. R. Sci- B CSRTI, Mysore         |
| 2  | Dr.R.Bagya, Sci-D CSRTI, Mysore               | 32 | Dr. Ravindra Sci-C CSRTI, Mysore               |
| 3  | Dr. R. Meenal Sci-D CSRTI, Mysore             | 33 | Sri. M. Dandapani, AD(Comp)                    |
| 4  | Dr. Muthulakshmi Sci - D, CSRTI Mysore        |    | <b>RSRSs/RECs/SSBS Conoor/P4 BSF Hassan</b>    |
| 5  | Dr. Gayathri .T, Sci-C CSRTI Mysore           | 1  | Dr. N. Dhahira Beevi Sci-D RSRS Salem          |
| 7  | Dr. Divya Singh Sci- B CSRTI, Mysore          | 2  | Dr. V. Lakshmanan, Sci-D, RSRS Kodathi         |
| 8  | Dr. S. Mahiba Helen Sci-D CSRTI Mysore        | 3  | Dr.B.Srinath Sci-D RSRS Ananthapur             |
| 9  | Dr. Bhuvaneshwari , E. Sci-C CSRTI, Mysore    | 4  | Dr.K.P.Kiran kumar Sci-D RSRS Ananthapur       |
| 10 | Dr. Kusuma L. Sci-C CSRTI, Mysore             | 5  | Dr. Ashok Jadhav Limbali , Sci-C, REC Parbhani |
| 11 | Dr. Raghunath M.K. Sci-D CSRTI, Mysore        | 6  | Dr. V. Vijay, Sci-C, SSBS, Conoor              |
| 12 | Dr. Mahesh R. Sci -C CSRTI, Mysore            | 7  | Dr. Dayanada Sci-D, P4 BSF, Hassan             |
| 13 | Dr. Shivakumar, Sci-C, Mysuru                 |    | JRF/SRF/PA                                     |
| 14 | Dr. Mallikarjuna G. Sci-C CSRTI, Mysore       | 1  | Keerthana Varshini, PA                         |
| 15 | Mr.Sanath kumar Sci-D CSRTI, Mysore           | 2  | Mega H.T, PA                                   |
| 16 | Dr. Manjappa Sci-C CSRTI, Mysore              | 3  | Prarthana M.S, JRF                             |
| 17 | Dr. Thirupathaiah Y. Sci-C CSRTI, Mysore      | 4  | Navyashree, PA                                 |
| 18 | Dr. C. M. Babu Sci -D CSRTI, Mysore           | 5  | Sahana K.P, JRF                                |
| 19 | Dr. Amit Kumar, Sci-C, Mysuru                 | 6  | Nisarga N. R., JRF                             |
| 20 | Dr. Satish L Sci-C CSRTI, Mysore              | 7  | Mr. Mahesh M.R. JRF                            |
| 21 | Dr. Arunakumar G. S. Sci-C CSRTI, Mysore      | 8  | Mr. Kuldeep B, PA                              |
| 22 | Dr. K. N. Madhusudhan Sci -D CSRTI, Mysore    | 9  | P. Sowbhagya, SRF                              |
| 23 | Dr. Dhaneswer Padhan Sci- B CSRTI, Mysore     | 10 | Harshitha K.M., PA                             |
| 24 | Dr. Ravindra Mattigatti Sci - D, CSRTI Mysore | 11 | Gowtham K, JRF                                 |
| 25 | Mr.Anand Kumar Sci-D, CSRTI, Mysuru           | 12 | Raveendranath H. R., PA                        |
| 26 | Dr. Tanmoy Sarkar. Sci-C CSRTI, Mysore        | 13 | Harshitha R., PA                               |
| 27 | Dr.G.S.Geetha, SRA(SS), CSRTI, Mysore         |    |  |
| 28 | Mr. H.M. Munikrishnappa AD, CSRTI, Mysore     |    |  |
| 29 | Rekha M., DD(Stat)                            |    |  |
| 30 | Dr.K.B. Chandrashekar, Sci-D CSRTI, Mysore    |    |  |