



Memorandum of Understanding

Between

Karnataka State Sericulture Research And Development Institute

And

KAMMAVARI SANGHAM INSTITUTE OF TECHNOLOGY

for

Collaborative Research and Development, Education and Training

1. Purpose, Objectives and Goals:

1.1. Purpose: This Memorandum of Understanding (MoU) which establishes the framework for collaborative Research and Development, education and training efforts (hereafter called "Collaboration") entered on this date the **21st of August, 2017**, between Karnataka State Sericulture Research and Development Institute, Thalaghattapura, a Research and Development Center for sericulture, situated at Thalaghattapura, Bangalore – 560062 (hereafter called "KSSRDI"), represented by its Director, and The Kammavari Sangham Institute of Technology No. 14, Raghuvanahalli, Kanakapura Road, Bangalore-560109, Karnataka (hereafter called "KSIT"), an integrated University of higher education represented by Its Joint Registrar, states as follows:

Collaborations under this MoU are focussed on; R&D in drug delivery and tissue regeneration, nano-biotechnology, nano-materials, visiting faculty or R&D assignments, M.S. / M.Tech. / Ph.D. programs, short-term training, and short-term courses. This MoU is intended to expedite research and development of new methods and technologies that can be implemented in support of KSSRDI and KSIT's missions to enhance nation's bio-technology capability, sericulture productivity, health sector, and economic growth. It is also aimed at enhancing the quality of research and education at KSSRDI and KSIT.

Both KSSRDI and KSIT, believe that this Collaboration will contribute to more efficient resource utilization and accelerate methods and technology advancement in mutually agreeable areas of research. The two organizations further believe that successful collaboration will leverage beneficial results via method and technology transfer, education, and training.

1.2. **Objectives:** KSSRDI and KSIT will work collaboratively to expedite development of methods and technologies that are needed to address the scientific issues in the fields of interest of both the institutions.

1.3. **Goals:**

- i. Identify and formulate research and development projects that address issues in respect of fields of scientific interest and establish arrangements that describe how personnel and resources of KSSRDI and KSIT will be effectively utilized to perform research and development projects addressing the said issues.
- ii. Perform collaborative research and development projects in an expeditious manner.
- iii. Provide products from the research and development projects in a form and format that can be easily used and understood by the target group.
- iv. Set up education and training programs at KSSRDI or KSIT with resource persons from KSIT as well as KSSRDI. These may involve M.S. / M.Tech. / Ph.D. programs with guides and co-guides from the two organizations, continuing education for KSIT and other industry employees, short-term assignments at KSIT for KSSRDI (or at KSSRDI for KSIT) faculty or staff, etc.

2. **Background and Program Scope:**

2.1. **Background:** R&D in nano-medicine, nano-materials, and nano-electronics around the world has provided great impetus for the development of country's high technology industry that can be utilized to meet the health, technology, and service sector needs. However, acute shortage of skilled engineers, lack of relevant academic and research programs beyond the critical mass in the universities, and poor university-industry collaboration are hampering such development. Hence there is a pressing need for collaborative R&D in nano-technology among the National Laboratories, Industries, Academic Institutes, Universities, and the Engineering Colleges.

The KSSRDI is functioning as R&D center for the sericulture development in the state. Sericulturists are the target group for whom the R&D results have to flow. This group ultimately contributes to the state's economy besides their own economic development. The centre has laboratories that work for mulberry and silkworm productivity development besides quality improvement with cost effectiveness. Soil, Seed, Physiology, Pathology, Breeding are some of the fields of application to be considered for nano technology in the KSSRDI. KSSRDI has expertise in the said fields and can be well roped into.

The KSSRDI in the past has contributed in the form of user friendly technologies to the field in order to augment the returns of the Sericulturists by way of productivity improvement and cost reduction techniques. The Institute has the expertise in the field of transfer of technology to carry out lab results to the land effectively.

KSIT presently has oriented its research in nano and chemistry focusing on Catalysis, Electrochemistry, Neurochemistry and Energy materials. It offers a critical mass of world class researchers with unique capabilities and expertise in nano-structured assemblies, electrochemical phenomena, catalyst materials integral to energy conversion and storage, sensing technologies, together with clinical characteristics of anti disease drug potential of novel natural molecules. The Center seeks collaborations to achieve this;

- By creating and mentoring a technically excellent workforce capable of solving Industry related problems far into the future.
- By being both a catalyst for scientific discoveries and a vehicle for translating these discoveries into enhanced technology / treatment.

The center hence intends to foster a collaborative and cross disciplinary research in vigorous fashion in years to come.

2.2. Program Scope: Under this MoU the two organizations; KSSRDI and KSIT will identify areas of research and development, education, and training in the fields of interest as indicated above, that can be efficiently addressed through a collaborative approach. R&D programs and the education and training programs will be carried out in KSSRDI, Thalaghattapura and at KSIT Center for Nano & Material Sciences. Further productizing the collaborative R&D efforts at either organization, through entrepreneurial incubation cells.

3. Responsibilities:

3.1. KSSRDI agrees to;

- i. Exchange information consistent with the objectives and mandate of KSSRDI, and identify areas of collaboration. Develop, formulate, and submit proposals of interest singly or jointly with KSIT to DBT, DIT, DST, national laboratories (such as R&D projects, technology assessment, testing, calibration and consultancy), and carry out such sponsored projects, describe specific R&D projects, education activities and training programs jointly pursued by KSSRDI and KSIT.
- ii. Facilitate Ph.D. programs: Guide / Major Advisor shall be from KSSRDI or KSIT as required for the project and Co-guide shall be the other organization from KSSRDI for each such program.
- iii. Facilitate its Center for Research (laboratories, library, office support, fields, etc.) for conducting such research work.
- iv. Formulate and carry out continuing education programs / short-term courses for industry employees within KSSRDI domains of expertise. 50% concession in fees for such programs for KSIT employees shall be provided.
- v. Make provisions for KSIT faculty as deputed / Visiting Faculty or Adjunct Professors, for research, training and teaching at KSSRDI for short durations.

- vi. Participate in joint technical activities (e.g., inspections, workgroups, scientific or engineering panels) with representatives from KSIT and other organizations which may be established to provide technical advice and guidance on issues related to the fields of interest of both the organizations.
- vii. Assign a Contact Point and Technical Lead for interactions with KSIT.
- viii. Jointly prepare annual summary report on the progress made under this MoU for each of the collaborations, or other cooperative activities, that are agreed as part of this agreement (MoU).
- ix. Record, produce and maintain minutes of meeting as described in this MoU in respect of meetings held at KSSRDI.

3.2. KSIT agrees to;

- i. Exchange information consistent with the objectives and mandate of KSIT and identify areas of collaboration. Develop, formulate, and submit proposals of interest singly or jointly with KSSRDI to DBT, DIT, DST, National Laboratories (such as R&D projects, technology assessment, testing, calibration and consultancy), and carry out such sponsored projects, describe specific R&D projects, education activities and training programs that will be jointly pursued by KSSRDI and KSIT.
- ii. Facilitate research training at KSIT for KSSRDI Staff / students in areas of interest to KSIT and relevant to the M.Tech. programs pursued by the students and make provisions (Center laboratories, library, workshop, office support, etc.) for such training.
- iii. Formulate and carry out continuing education programs / short-term courses for industry employees within KSIT domains of expertise. 50% concession in fees for such programs for KSSRDI employees shall be provided.
- iv. Take KSSRDI faculty on deputation to work in KSIT on-going projects so that the faculty member may gain further experience.
- v. Participate in joint technical activities (e.g., inspections, workgroups, scientific or engineering panels) with representatives from KSSRDI, to provide technical advice and guidance on-issues related to the fields of interest of both the organizations.
- vi. Assign a Contact Point and Technical Lead for interactions with the KSSRDI.
- vii. Jointly prepare annual summary report on the progress made under this MoU for each of the collaborations, or other cooperative activities, that are agreed as part of this agreement (MoU).
- viii. Record, produce and maintain minutes of meeting as described in this MoU in respect of meetings held at KSIT.

4. Memorandum of Understanding (MoU) Administration:

- 4.1. **Reports:** The status of work performed under this MoU will be reviewed on an annual basis. The KSIT Contact Point will take the lead and be responsible for organizing meetings (planning meetings and annual meetings), developing agenda and recording results of the meetings. Minutes of the meetings will be produced by KSIT and be distributed to meeting participants as well as to the Director of KSSRDI, and Joint Registrar, KSIT. A central file (retained by KSIT) will be maintained. ...5

- 4.2. **Information Releases:** Joint Registrar, KSIT and Director, KSSRDI will jointly review and approve information regarding MoU activities (meetings, new developments, etc.) prior to public release. Reports prepared under this agreement will stipulate specific procedures for the coordination, handling and public disclosure of information. All information disclosures concerning activities under this MoU or subsequent reports will comply with the guidelines of both the organizations governing the release of information. Where particular information protocols apply to a particular laboratory, or network of laboratories, those protocols will be followed by both parties to this MoU.
- 4.3. **Security Classification:** The highest security classification applied by both the parties will govern the handling of information and reports under this MoU, as appropriate. The security classification and procedures will be stipulated in each report.
- 4.4. **Facility Security, Health, Safety, and Environmental Compliance:** The host facility's security, health, safety, and environmental compliance programs will be followed by personnel when engaged in work activities as outlined in this MoU. Workers Injury Claims shall be covered by the employee's agency.
- 4.5. **Reimbursement Policy:** Each party to this agreement will handle and expend its own funds, except as otherwise noted in this MoU. The responsibilities assumed by each party are contingent upon funds being available from which expenditures legally may be met.
- 4.6. **Annual Management Meetings:** KSSRDI and KSIT will meet annually to plan and coordinate Collaboration under this MoU. Such meetings will be held at a mutually agreed upon location and on a date that is compatible with the planning and budgeting cycle of each organization. At this meeting, recommendations for adjustments to current activities, projects, and budget priorities will be proposed and agreed upon by the Contact Point for submission to the KSSRDI Director and Joint Registrar, KSIT for further action.
- 4.7. **Semi-Annual Technical Discussions:** KSSRDI and KSIT will meet at least twice a year to discuss technical progress under each project or activity. These reviews will require technical information exchange by KSSRDI and KSIT Technical Leads. These meetings may include individuals from outside of KSSRDI and KSIT as mutually agreed to by the respective Points of Contact.
- 4.8. **Technical Lead Responsibilities:** Technical Leads for each project or activity will strive to engage in:
- Providing technical information exchange consistent with agency regulations governing the exchange or release of information
 - Delivering written or verbal technical evaluations of progress
 - Conducting visit to sites where research is underway
 - Organizing and participating in technical workshops and scientist-to-scientist meetings.

- Reporting on any exceptional accomplishments from, or impediments to, successful program or project execution
- Recommending improvements for the MoU activities

4.9. **Approvals:** All plans and activities designed to carry out this MoU must be agreed to and approved by KSSRDI and KSIT prior to commencement of any technical work.

4.10. **Disclosure and Use of Proprietary Information:** Both KSSRDI and KSIT recognize that successful Collaboration depends on full and prompt exchange of Proprietary information (Information not generated in the performance of this MoU and is proprietary to the disclosing party) necessary for carrying out this MoU. The nature and amount of Proprietary Information to be acquired by either party will be consistent with the objectives stated in Section 1.2 (Objective), Section 1.3 (Goals) of this MoU.

Disclosure: Each party, upon request, will disclose to the other party any relevant Proprietary Information provided that:

- a) Such Proprietary Information is necessary to or useful in the R&D purposes under this MoU and will be considered as confidential information and shall not be disclosed to any third party without the disclosing party's consent;
- b) Such Proprietary Information may be made available without incurring liability to holders of proprietary rights; and
- c) Disclosure is consistent with the rules and regulations of the disclosing party and other may use the Proprietary Information however, the disclosing party will retain all its rights with respect to such Proprietary Information.

4.11. **Inventions and Licensing:** Activities conducted under this MoU and any project or other extramural arrangements may result in products or processes that are patentable. The organization whose work results in the invention shall disclose the invention to the other organization and then prepare, file, and *process* patent applications. If protection is granted, the inventing organization will manage the invention in accordance with its rules and regulations. To be more clear, title to all inventions and discoveries made by KSSRDI resulting from the research performed hereunder shall reside in KSSRDI; title to all inventions and discoveries made by KSIT resulting from the research performed hereunder shall reside in KSIT; title to all inventions and discoveries made jointly by KSSRDI and KSIT resulting from the research performed hereunder shall reside jointly in KSSRDI and KSIT.

Both parties agree to grant to the other party an option to negotiate an exclusive, royalty-bearing license to make, use or sell any invention or discovery owned wholly or partly by KSSRDI or KSIT and made or conceived and reduced to practice during the term of this MoU which have directly resulted from the performance of the research hereunder. KSSRDI or KSIT shall notify the other party of its desire to enter into such a license agreement, and a license agreement shall be negotiated in good faith between the parties.

5. Period of Agreement:

- 5.1. This MoU shall be effective for 10 (ten) years from the date of the last signature unless cancelled in writing by either of the participating organization with 90 days notice.
- 5.2. This MoU will be reviewed annually by the Contact Point to determine if any changes or amendments should be incorporated. Such changes or amendments will be formally incorporated in the MoU within 90 days of the annual review.
- 5.3. Within 30 days of its expiry, this MoU may be renewed on same terms as on the date of expiry upon a signed agreement of renewal between the respective Director of KSSRDI and Joint Registrar, KSIT.
6. **Governing Law:** Except as specifically provided for herein, all questions, disputes or differences arising under, out of or in connection with this MoU shall be settled in accordance with laws of India (both procedural and substantive) from time to time in force.
7. **Patent / Copyright Indemnification:** Either party will defend any suit against the other party arising out of any actual or alleged patent or copyright infringement of a valid Indian patent or copyright, to the extent based on the Proprietary Information disclosed by disclosing party to the aggrieved party, and indemnify for any final judgment assessed against aggrieved party resulting from the suit provided that aggrieved party notifies the disclosing party at the time it is apprised of the third-party claim.

8. Names and Addresses of Parties:

For KSSRDI

Dr. P.G.Radhakrishna
Director,
Karnataka State Sericulture Research &
Development Institute, Kanakapura Road,
Thalaghattapura, Bangalore 560109

For KSIT

Dr.T.V.Govindaraju
Principal/Director
Kammavari Sangha Institute of
Technology, #14, Raghuvanahalli
Kanakapura Road, Bengaluru - 560109

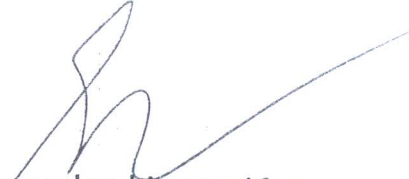
9. General Provisions:

- 9.1. Nothing in this MoU supersedes any other memorandum of understanding held by either party.
- 9.2. This MoU in no way restricts the parties from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

9.3. This MoU describes in general terms, the basis upon which the parties intend to cooperate. It does not create binding, enforceable obligations against any party.



Approved and Accepted for
KSSRDI ~~Kernatake~~ State Sericulture
Research & Development
Institute, Thalaghattapura,
Bangalore-560 062



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