

ITEC TRAINING
on
“SERICULTURE AND SILK INDUSTRY”

3rd to 30th September, 2026



COURSE CONTENT

**CENTRAL SERICULTURAL RESEARCH AND TRAINING INSTITUTE (CSR&TI),
CENTRAL SILK BOARD, MINISTRY OF TEXTILES, GOVT. OF INDIA,
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**International Training on “Sericulture and Silk Industry” under the
Indian Technical and Economic Co-operation (ITEC),
Ministry of External Affairs, New Delhi, India**

1. INTRODUCTION:

India has the unique distinction of being the only country producing all the known commercial varieties of natural silk, viz., Mulberry, Tropical Tasar, Temperate Tasar (Oak Tasar), Eri and Muga. India ranks second among the silk producing countries of the world accounting for about 42% of the total global silk production with productivity level of 110 kg/ha. Central Silk Board (CSB), a statutory body under the administrative control of Ministry of Textiles has been entrusted with the overall responsibility of developing silk industry covering the gamut of sericultural activities in the country. Central Silk Board has its head quarters in Bangalore. Under the umbrella of Central Silk Board, good numbers of research institutions are working for the cause of technology development and Human Resource Development.

2. RATIONALE OF THE PROGRAMME

Trained human resource is one of the critical requirements for the production of quality silk at a reasonable cost. Sericulture is playing an important role in the economic development of many developing countries especially the rural poor. However, the industry in these countries needs trained technical personnel to transfer the technology to the rural mass. Training is one of the key areas of Central Silk Board’s mandate and since its establishment, CSB has been playing a pivotal role in generating the required technical man power in most developing countries practicing sericulture. In this direction, CSB is organizing different training programmes at CSRTI, Mysore for the benefit of various stakeholders of the industry. These programmes are tailor-made to meet the specific needs of each sector and of immense help in updating the knowledge and skills of the extension personnel and the sericulturists, as well. This exercise is having the dual advantage of development of essential human resource for the industry and complementing the efforts of effective transfer of technologies.

With the new developments taking place in the field of sericulture, the training and development activity is considered as a necessity by all forward-looking organizations both national and international for updating the knowledge and skill and hence the training needs will continue to exist at all levels of silk industry world wide.

Central Sericultural Research and Training Institute (CSRTI), Mysore is the pioneer Sericultural Research Institute under Central Silk Board, accredited with ISO 9000:2008 involved in the Research and Development of technologies to increase the productivity and improve upon the

quality of silk produced in the country. The Institute also conducts Training programmes on different aspects of sericulture for national as well as foreign candidates. To assist sericulture industry in developing countries, an International Centre for Training and Research in Tropical Sericulture (ICTRETS) under Indo-Swiss bilateral co-operation in September, 1980 was established. Training was imparted to more than 550 foreign students from 30 countries under this programme. Similarly, the international training Programmes for foreign national were also conducted under JICA from 1997 to 2012.

The Institute has so far successfully undertaken three batches of the ITEC sponsored training on sericulture and silk industry.

3. DETAILS OF THE TRAINING PROGRAMME

Keeping in view of the requirements of the sericulturally developing countries, the Govt. of India has considered to organize a training programme on “Sericulture and Silk Industry” in Central Sericultural Research and Development Institute, Mysore for a period of 4 weeks with a view to replicate successful model of commercial sericulture practice to other developing countries.

3.1. OBJECTIVES OF THE TRAINING:

1. To assist in introducing and developing sericulture activities in Third World countries,
2. Generation of skilled man power in the field of sericulture,
3. To impart training in extension management and transfer of technology,
4. To impart training in Post Cocoon Technology, and
5. To enlighten the successful model of commercial sericulture practice for replicating in other developing countries.

3.2. COURSE CURRICULAM:

The programme will be of 28 days (4 weeks) duration and the batch strength will be for 15-30 persons. The training programmes will be conducted by covering the following subjects:

- (a) Mulberry cultivation technologies,
- (b) Silkworm rearing (Young age and Late age silkworm rearing),
- (c) Silkworm seed production technology,
- (d) Extension management and transfer of technology, and
- (e) Post cocoon technology

The above subjects would be covered mostly by practical and interactive sessions. Towards this purpose, one silkworm rearing will be conducted specially for the training programme, wherein, the trainees themselves will participate and acquaint themselves with the practical aspects. Practical sessions will also be arranged on different aspects of sericulture. The Resource persons will use audio-visual methods for effective communication. The trainees will also be exposed to field activities among the farmers through field visits. The schedule of the training shall be on the following manner:

Day	Topic/Activity
Day 1 Thursday	Arrival at Mysore Registration and Orientation on ITEC Training programme
Day 2 Friday	Inauguration of training programme and pre- test. Orientation visits to different sections of CSRTI, Mysore
Day 3 Saturday	Soils suitable for mulberry cultivation and soil fertility management (Theory) Soil sampling and testing (Practical)
Day 4 Sunday	Holiday - Mysore Local visit
Day 5 Monday	Hands on training on Brushing of larvae (Practical) General sericulture Scenario in India Hands on training on silkworm rearing - Practical
Day 6 Tuesday	Hands on training on bivoltine silkworm rearing – Practical Central Silk Board – its organizational structure and role in the development of silk industry in India
Day 7 Wednesday	Hands on training on bivoltine silkworm rearing - Practical
Day 8 Thursday	Hands on training on bivoltine silkworm rearing - Practical Economics of sericulture
Day 9 Friday	Hands on training on bivoltine silkworm rearing - Practical Chawki garden concept, importance of pruning & training of plants (Theory & practical) Late age silkworm rearing technology
Day 10 Saturday	Visit to Kollegal & Chamarajanagar & nearby farmers & weavers (Rainfed area)
Day 11 Sunday	Holiday

Day 12 Monday	Holiday (Festival- 14.09.2026)
Day 13 Tuesday	Hands on training on bivoltine silkworm rearing -Practical (2 sessions) Mulberry pests and their management (Theory) Mulberry pests and their management (Practical)
Day 14 Wednesday	Hands on training on bivoltine silkworm rearing - Practical (2 sessions) Leaf estimation in mulberry plot (Practical) Use of artificial diet in chawki rearing
Day 15 Thursday	Hands on training on bivoltine silkworm rearing - Practical (2 sessions) Silkworm pests and their management (Theory) Silkworm pests and their management (Practical)
Day 16 Friday	Hands on training on bivoltine silkworm rearing – Practical Preparation & selection of mulberry cutting and their plantation in nursery beds (Practical). Seri-composting and Vermi -composting Microsporidian diseases of silkworm – causative agent, symptoms and management (Theory). Use of Sampoorana in silkworm rearing
Day 17 Saturday	Visit to P4 station Hassan, nearby places of cultural and historical importance
Day 18 Sunday	Holiday
Day 19 Monday	Hands on training on bivoltine silkworm rearing & arrangement of mountages (Practical2 sessions). Scope and role of mechanization in sericulture
Day 20 Tuesday	Visit to Karnataka Silk Industries Corporation (KSIC), Cold Storage and Silkworm Seed Production Centre (SSPC), Mysuru. Acid treatment of bivoltine silkworm eggs and their preservation schedules
Day 21 Wednesday	Training on silkworm seed production Flagships programmes of India
Day 22 Thursday	Introduction to Reeling technology – Cocoon quality, testing & Grading. Shell ratio, defective cocoon and reelability (Theory). Stifling – Objective, methods, their merits & demerits. Storage & Sorting Practical on cocoon testing – Shell ratio, Defective cocoon %, cooking & Reeling.
Day 23 Friday	Outstation Visit: Marketing of silk cocoons at Cocoon market, Ramanagaram (A visit to cocoon market where bivoltine cocoons are transacted). Visit to Central Silk Board (CSB), Bangalore, Central Silk Technological Research Institute (CSTRI), Bangalore. Halt at Bangalore
Day 24	Visit to Loopworm, Fibroheal, local areas in Bangalore and leave to Mysore

Saturday	
Day 25 Sunday	Holiday
Day 26 Monday	Reeling Machines, production calculation, Reelability, reel permeation etc. reeling lacing, skeining bundling. Practical on cocoon testing –Reeling, production calculation, Reelability, reel permeation, reeling, lacing, skeining, bundling and packing
Day 27 Tuesday	Practical on single cocoon filament length, denier & its variations using Epprovette. Raw silk testing & Classification. By product utilization, non-textile application of silk/silk beyond textiles (Theory)
Day 28 Wednesday	Country Report Presentation, Feedback, Valedictory and issue of Certificates of participation. Leave to their respective countries

3.3. SYLLABUS:

- Orientation,
- Presentation of Job Report by the participants,
- Plan and policies of sericulture in India, development of sericulture through various plan periods, Important projects implemented during the country,
- Soil fertility and it's management, general sericulture, package of practices for mulberry, calculation of fertilizers, Mulberry pests and diseases and their management, leaf harvesting,
- Silkworm breeds for tropical sericulture, Silkworm seed multiplication system followed in India, disinfection of rearing house, calculation of disinfectant solutions, Chawki rearing, late age rearing, Silkworm rearing – Practical,
- Mounting, types of mountages, Cocoon quality parameters, etc.,
- Mechanization in sericulture,
- Economics of sericulture, marketing, concepts of benefit cost ratio, net present value, break even analysis and it's importance,
- Extension education, extension communication methods, teaching aids, elements of learning, knowledge, skill and attitude, supervision, diffusion of innovations, etc.,
- Post cocoon activities in sericulture, and

- Visit to important sericulture practicing areas in south India, cocoon markets, silk exchange, department of sericulture, research institutes, etc.

3.4. ELIGIBILITY OF CANDIDATES

- Officials in Government, Public and Private Sectors, Universities, Chambers of Commerce and Industry, etc.
- Candidates should possess one year work experience in the related field.
- Minimum of University Degree or other equivalent qualifications,
- Working knowledge of English is required to follow the Course.
- Age between 25 to 45 years.
- Medically fit to undertake the training.

3.5. TEACHING METHODOLOGY:

The teaching shall be conducted by a group of highly experienced scientific personal, whose CVs are attached. The training methodology shall be on the following lines:

- Audio- Visual presentation,
- Case analysis,
- Practical classes
- Group discussion, and
- Interactive lecturing

3.6. FACILITIES AVAILABLE

The Institute has all the necessary facilities for conducting training programmers. The important facilities are listed below:

- a) Separate rearing houses for young age and late age rearing of silkworm,
- b) Well developed mulberry garden,
- c) Well equipped class rooms with audio-visual facilities,
- d) Well qualified and experienced faculty in different aspects of sericulture,
- e) Well equipped laboratories,
- f) Library facility with access to internet,
- g) Hostel facilities at the Institute premises,
- h) Canteen facility,
- i) Seminar hall, and

j) Banking facility within the campus

4. PARTICIPATING COUNTRIES

ITEC Member Countries

5. PERIOD OF TRAINING:

3rd to 30th September, 2026

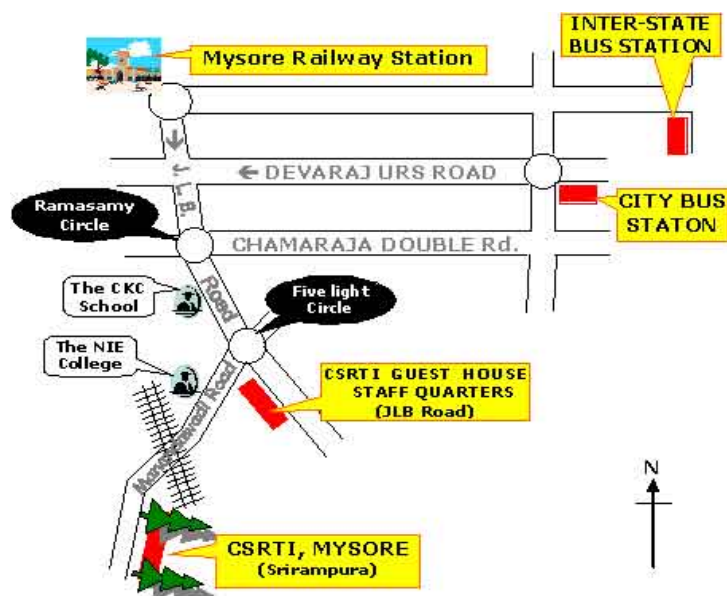
6. EXPECTED OUTCOME:

The participants from third world countries will be trained in different aspects of advanced sericulture technologies. This will help in strengthening of sericulture in their respective countries. Besides, the acquired knowledge would improve their skill thereby enhance the livelihood income from sericulture practice. The trained candidates could be evolved trainers to disseminate the technologies to the grassroots level stakeholders in their country. The training would facilitate to replicate the successful model of sericulture practice developed in India in their respective countries.

7. LOCATION OF THE TRAINING INSTITUTE:

The CSRTI is located in the southern part of Mysore city on the H.D. Kote - Manandavadi Road at about 8 km from Mysore Railway Station. Mysore city is located about 180 km from Bangalore International Airport. Bangalore is the capital city of the province of Karnataka. More details about the training institute can be obtained from their website <http://www.csrtimys.res.in/>

Mysore has a long illustrious history of being one of the major seats of learning in southern India. Apart from being the centre of advanced studies under University of Mysore, the city also houses a number of academic and research institutions of International repute. Mysore is situated at an altitude of 759.9 m (2492 ft) above mean sea level, with latitude 12.18°N and longitude 76.42°E. Mysore receives an average rainfall of 710 mm with the temperature ranging between 33 °C and 18 °C.



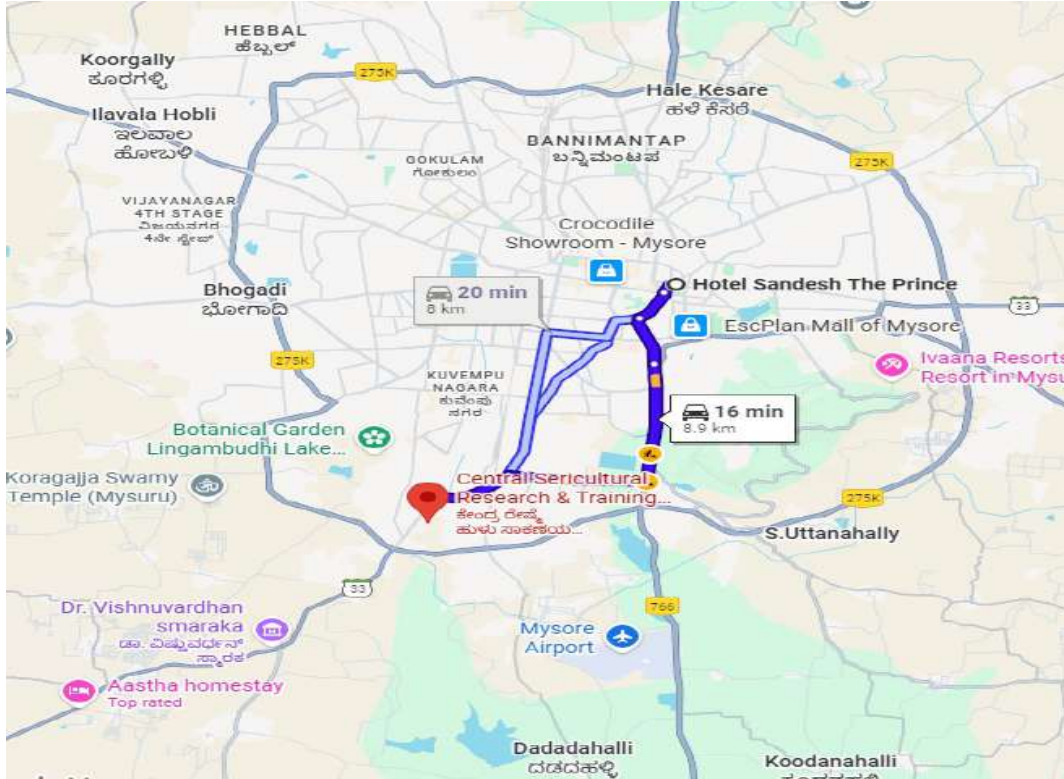
8. ARRIVAL ASSISTANCE:

The trainees will be received at the Bangalore International Airport by the representatives of the training institute. Arrangement also will be made to receive the trainees from Mysore domestic airport. The trainees shall be received by the representatives from training institute and will be taken to Hotel by road.

9. ACCOMMODATION:

The accommodation would be arranged in the **hotel Sandesh The Prince, Mysore** for international ITEC trainees. The hotel is of three-star property having well-ventilated spacious rooms, Gym, Swimming pool, security systems, fire safety measures, lockers, etc., and provides hygienic continental food. The trainees shall be provided with single occupancy rooms, mineral water, and breakfast.

The hotel is 180 km away from Bangalore International airport and around 10 km away from both Mysore domestic airport and the training institute. The trainees are transported regularly through arranged vehicle by the institute.



The address details of the hotel is as follows:

Hotel Sandesh the Prince,

No 3, Nethra Nivas, Nazarbad Main Rd,

Mysuru, Karnataka 570010

Phone: 0091 821 243 6999

Email: gm@sandeshtheprince.com

Contact Person: Mr. Ramesh, General Manager,

Contact No. 0091 9845835669

10. TRAINING ALLOWANCE:

The allowance admissible to the participants includes the cost of air passage, free tuition, living allowance and lodging as per availability of accommodation. INR 1500/- per day would be provided as Living allowance. The air ticket will be arranged by the Indian Mission in the respective countries. The living allowance shall be released by the training institute on weekly basis.

11. WEATHER :

Daytime temperatures usually reach 29°C in Mysore in September with moderate heat and humidity, falling to 20°C at night. There are normally 5 hours of bright sunshine each day in Mysore in September - that's 43% of daylight hours. There are usually 8 days with some rain in Mysore in September and the average monthly rainfall is 128mm.

The trainees are advised to bring light winter cloths.

12. TOURIST ATTRACTIONS:

There are many tourist places within the city of Mysore. The trainees may explore these places on holidays for which escort services would be provided by the institutes on request. The following are some of the places of interest:

- a) **Mysore Palace** : The palace consists of pavilions, large halls, and various shrines. During the most celebrated Dasara festival, the palace is richly decorated to display the culture and heritage of those times. In the evening time, when illuminated by 98000 light bulbs, it is a spectacular sight worth capturing in your minds for forever.
- b) **Lalitha Mahal** : The exquisite interiors of the palace adorned with Belgian crystal chandeliers and Persian carpets are spectacular. A part of the palace has now been converted to a heritage hotel and is being managed by India Tourism Development Corporation (ITDC).
- c) **Jagmohan Palace**: One of the best places to visit in Mysore today, Jagannmohan Palace was initially constructed to be used as a residence for royal family but it was later on converted to an art gallery. The gallery houses many valuable artifacts and artworks from South India. The famous works of Indian artists such as Raja Ravi Verma's oil paintings and S.G.Heldnr's "Lady with the lamp" are also kept here. The antiques and some intricate masterpieces also feature at the art gallery.
- d) **Karanji Lake** : Capturing over 90 acres, the largest lake in Karnataka is among the most gorgeous tourist places in Mysore. Karanji Lake is situated at the base of Chamundi hills and qualifies as the best option for enjoying nature's scenic views. Adding to it, the highlight of the lake is **India's largest walk-through aviary** that houses more than 70 species of birds. Serving as a home to migratory birds, it is a picturesque spot for all the bird lovers and nature admirers and one of the must-visit tourist places in Mysore.
- e) **Melody World Wax Museum**: The **third largest art museum of India**, Melody World is a one of its kind. As the name suggests, the museum showcases a collection of over a hundred wax statues and over three hundred music instruments. The instruments and bands are displayed here range from stone age to the modern date showcasing different genres such as Jazz, Pop, Chinese, Tribal, Rock, Punjabi Bhangra, Hip Hop etc. It is a tribute to the famous music artists from all over the world. Also, it is one of the most famous **Mysore sightseeing places**.
- f) **Railway Museum**: The railway museum in Mysore is second largest after the one in Delhi and it is certainly one of the best places to see in Mysore. The museum also puts on display the initial locomotives and steam engines. A mini train takes the visitors on the ride through the premises of the museum. A section also displays the luxurious travels undertaken by royal dynasties of Mysore which consists of dining rooms, kitchen,

and royal toilet. Kids love the place owing to the storehouse of interesting stuff around. Among all the best Mysore tourist places, this is the best attraction visit with kids.

- g) **St. Philomena Church:** Clearly, Mysore is all about grand architectures! Next in the list of best **places to see in Mysore** is St Philomena church, which is one of the largest Cathedrals of South Asia. Built in Gothic style, the construction plan of the church has been laid very thoughtfully. The church's basement has catacombs below the main altar. The floor plan is laid in the shape of the Holy Cross with Congregation Hall, Choir and Transepts over its ends. The stained glass windows depict the paintings of famous events of Christ's era.
- h) **Chamundi Hills And Chamundeshwari Temple:** Chamundi hills are located 13 km from Mysore and there lies a beautifully sculptured Chamundeshwari temple atop the hills. To reach the temple, the flight of 1000 steps needs to be taken. The architecture of the temple is unique and eye catching with 7 tier *gopuram* and 7 golden *kalash* at the top. Handcrafted with excellence, the temple is dedicated to Goddess Durga and depicts her with 8 hands (also known as Ashta Bhujas). A tour to the hills and the temple is perfect for a day of sightseeing in Mysore. This is one of the most **famous places in Mysore** for visiting with family.
- i) **Sri Nandi Temple:** Adjacent to Chamundi hills, in the halfway while climbing up to the Chamundeshwari temple, lies the Nandi temple – one of the best **must visit places in Mysore** for religious tourists. In the mythology, Nandi is depicted as a sacred bull and the friend of Lord Shiva. The 5 meters tall idol of Nandi is believed to be carved out of a single rock. There are many monkeys around the place, so one needs to be bit careful about their belongings.
- j) **Brindavan Gardens:** Built across Krishnaraja Sagar Dam, Brindavan gardens are located 23 km from Mysore. It is a famous spot for sightseeing near Mysore and a perfect space to spend a pleasant evening. The magical fountain show is the highlight, ornated with beautiful lights and cheerful music. Boat rides and fruit orchards serve as the icing on the cake.
- k) **Sri Chamarajendra Zoological Gardens:** Popularly known as the Mysore Zoo, Sri Chamarajendra Zoological Gardens was established in 1892. The zoo is among the top places to see in Mysore, especially with kids. Today it expands over an area of 78 acres. Other than the animals found in our country, this zoo also has some exotic animals acquired from foreign zoos. If you are here for a long weekend, then the zoo is definitely one of the **places to visit in Mysore**. Also, if you are visiting with kids, then this is one place that should be on your itinerary.

13. CONTACT DETAILS:

For support and assistance, you may contact the following persons:

a) Dr. Deepa P,

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