



## Annual Report: 2019-20

**CENTRE FOR SOCIAL INNOVATION AND ENTREPRENEURSHIP (CSIE)**

Indian Institute of Technology Madras



**IIT Madras - CSIE**  
(Center for Social Innovation & Entrepreneurship)

Sponsored by Alumni 1982, 1984, 1986 batch

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## 1. Introduction

Centre for Social Innovation and Entrepreneurship (CSIE) at IIT Madras was founded in August 2010 with a focus on teaching and research in the field of social enterprise in India. The Centre works in promoting social entrepreneurship through education, research and dissemination of research output. It has successfully reached out to a number of high schools, higher educational institutions and social entrepreneurs internationally through various project activities. It undertakes research projects and livelihood improvement projects to build capacities of social entrepreneurs and enrich knowledge in this sector. For all these initiatives, CSIE work closely with institutions, builds partnerships and helps them build capacities to create awareness, identify and nurture aspiring social entrepreneurs.

### 1.1 Mission

To build an environment that will facilitate the creation of social enterprise knowledge through research and empower students to apply their entrepreneurship abilities to develop solutions for greater social impact.

This is achieved by:

- **Education.** Offering academic programmes on social innovation and entrepreneurship for students across disciplines and degrees at IIT Madras and outside.
- **Research.** Providing an enabling environment for both students and faculty researchers interested in social enterprise research within the IIT campus
- **Consultancy & Outreach** Encouraging young innovators and entrepreneurs by assisting in the development of socially beneficial products and ideas
- **Collaboration.** Creating an ecosystem of social entrepreneurship and extending the same to other technology institutions including IITs.

### 1.2 Evolution of activities

2010 - 13 Education & Research	2013 - 2015 Education, Research & Outreach	2015 - 20 Education, Research, Outreach & Consultancy
<ul style="list-style-type: none"><li>• Minor Course for IITM</li><li>• Research</li></ul>	<ul style="list-style-type: none"><li>• Minor course</li><li>• IdeaSpark</li><li>• Camp for School Students</li><li>• FDP/SDP</li><li>• Research</li></ul>	<ul style="list-style-type: none"><li>• Elective Course</li><li>• Certificate Course</li><li>• International Summer/Winter School</li><li>• Ideaspark</li><li>• Camps for School Students</li><li>• FDP/SDP/CBP</li><li>• Research</li><li>• Consultancy</li><li>• Livelihood Enhancement</li></ul>

### **1.3 Impact till Date**

#### ***Education***

- 5 batches of Innovation & Social Entrepreneurship courses. Around 200 students from IIT Madras have enrolled. About 10 students have started enterprises
- 4 International Summer/Winter Schools on Social Entrepreneurship. 82 students participated
- 4 Certificate Courses. About 100 participants enrolled

#### ***Outreach***

- 5 Faculty Development Programs. 1 Student Development Program. 8 Entrepreneurship Awareness Camps. 3 Business Plan workshops conducted. Reached out to 50 colleges, 120 faculty, 1050 students from engineering colleges
- 6 school camps. 500 students from different schools in Tamil Nadu participated
- 4 Idea spark Editions. 700 students participated. 70 ideas discovered
- “Involve” a social enterprise based on peer-to-peer learning model for Government Schools was rendered incubation support

#### ***Research***

- 9 Research papers presented in International Conferences and 1 book chapter published

#### ***Capacity building & Livelihood Promotion***

- Strengthened management capacities of 105 Farmer Producer Companies( FPCs) and 22 NGOs through 8 Capacity Building Programs through which 263 farmers benefited and developed 8 case studies on ‘best practices of FPCs’
- CSIE has become key organizing node for state and national seminars on farmer producer organizations.
- Developed social media platform to promote Korai Mats - Result – 2500+ followers, 2 retailer connects and Rs. 3,50,000 worth of sales facilitated through exhibit space at IIT Madras, International Conferences and institutional sales.
- Established a Common Facility Centre (CFC) for Pathamadai Korai Mats under the “revival of languishing crafts” initiative by Tamil Nadu Government.
- Established a Skill Development Centre at Vellapakkam village under the CSR initiative of Chennai Petroleum Corporation Limited (CPCL).
- Established a rural enterprise to manufacture biochar under the Technology Transfer initiative with Shri AMM Murugappa Chettiar Research Centre.

## **2. GOVERNANCE STRUCTURE**

The Governance Committee (GC) consists of representatives from the sponsors ('84 batch), IIT Madras faculty members and the partnering agency. The members of GC are:

- Dr. R. Nagarajan, Project Coordinator, CSIE  
Professor and Head, Chemical Engineering
- Prof. L.S. Ganesh, Professor, Management Studies
- Prof. Ashwin Mahalingam, Associate Professor, Civil Engineering
- Prof. Devendra Jalihal, Professor, Electrical Engineering
- Prof. L. Prakash Sai, Professor, Management Studies
- Prof. Mahesh Panchagnula, Dean, International & Alumni Relations  
Professor, Applied Mechanics
- Dr. V. Kalyanaraman, Project Consultant, RuTAG, IIT-M
- Dr. Tamaswati Ghosh, CEO, IIT-M Incubation Cell
- Mr. Joseph Thomas, Development Office, IIT-M
- Mr. Rangarajan Ganesan, Advisor, C-TAP, IIT-M

### **2.1 Staff**

- James Rajanayagam, Senior Project Advisor, CSIE
- Gangaram Sandeep Kumar, Project Officer, CSIE
- Aishwarya Raman, Senior Project Officer, CSIE
- Krishnaveni P, Senior Project Assistant, CSIE
- Suba Ramesh, Project Associate, CSIE

### 3. Activities

#### 3.1 Education

Education in the field of Social Entrepreneurship was identified as one of the primary objectives of CSIE. CSIE believes that by educating students in the field of social entrepreneurship, we are creating a ready-source of talent for the sector.

##### **3.1.1 International Winter School on Social Entrepreneurship:**

**International Winter School on Sustainable Architecture. 9 - 14 December 2019** From the success of the first 3 editions of the International Summer/Winter School on Social Entrepreneurship, CSIE embarked on a new theme - 'Sustainable architecture' in its flagship programme 'International Winter School' in December 2019 and came out with enthusiastic participants by their interactions with architects, academicians and entrepreneurs symbolizing Indian architecture. While developing such a tailored programme on the new theme, CSIE was able to tap not only the IITM ecosystem but also the relevant departments of local state governments such as 'Slum Clearance board' and renowned PPP projects in the city.

*"It is highly valuable. I was able to get inputs on environmental sustainability as well as architecture and the intertwining aspects of these domains. The site visits are incredible and conveyed us how the traditional housing models had such environmental concerns in the core and how we need to adapt in the current scenario."* – **Ryan Mueller, Architecture Student-Swinburne University of Technology**

*"Interesting challenges, we observed here in the context of sustainable housing. Tackling the social and environmental concerns along with the individualistic preferences in adapting to sustainable housing was well covered through the field visits. The interactions with the builders were incredibly useful for students. Innovation at India with targets of rapid construction for houseless was unveiled by these exposures. The course content also covered the cultural context and the urbanization led challenges in South Indian architecture"*- **Prof.Marcus White, Swinburne University of Technology**

The resource persons of the schools include faculty members of IIT Madras, experts, social entrepreneurs from the industry and government.

The two-week Winter School includes classroom lectures, field visits for orientation and immersion, interactions with accomplished social entrepreneurs, discussions on case studies and documentaries, including self-study and peer learning opportunities.

Participants had to give presentations and submit reports as part of the course.

More details here - <http://csie.iitm.ac.in/socentschool/>

### **3.1.2 MSDE – UKIERI Social Entrepreneurship Capacity Building**

CSIE is actively engaged in UK-India Social Entrepreneurship Education Network (UKISEEN) through University of Southampton. The network is engaged in education promotion activities through conferences, seminars, workshops, competitions and related projects.

Centre for Social Innovation & Entrepreneurship (CSIE), IIT Madras along with Social Impact Lab at University of Southampton, UK is now working towards “Building Social Entrepreneurship Capacity among Technology Graduates”.

The program aims to build capacity for socially entrepreneurial activity with specific focus on skill-based opportunities in the domains such as handicrafts, food processing by providing college students in Tamil Nadu and Kerala with skills training through curriculum-based social entrepreneurship education. The skills will be in the areas of social media technologies, value addition to food processing, big data analytics, etc.

This is being done by supporting teachers in technology colleges to develop and implement social entrepreneurship modules with focus on the skills listed above and providing students with experiential and cross-cultural learning opportunities in social venture creation and real-world problem-solving.

#### Activities:

- A Consultation meeting for the 11 colleges from Tamil Nadu and Karnataka interested in the project was organized on 19 September 2019 at IIT Madras.
- A 3 - day Faculty Development Program was conducted on 25 -27 November 2019 at IIT Madras focused on Skill based Social Entrepreneurship. 11 colleges participated in the program.
- Free Elective and Certificate courses were deemed feasible by most of the participating colleges..
- CSIE had one-on-one meetings with 3 colleges interested in introducing the Social Entrepreneurship courses at their respective universities.
- CSIE is currently working on designing the course structure to be implemented in the interested colleges. Two formats are being designed:
- 3- credit course – 45 hrs and Certificate Course – 30 hrs

More details here: <http://ukiseen.org/msde-ukieri-sept>

### **3.3 -Consultancy**

CSIE undertakes consultancy assignments to provide business development support for social enterprises (including FPCs) and also undertakes impact assessment for philanthropic projects.

#### **3.3.1 CAPACITY BUILDING OF PRODUCER COMPANIES (FPCs) FOR BETTER MANAGEMENT PRACTICES & SUSTAINABLE GROWTH**

**Objective:** To build capacities of Farmer Producer Companies (FPCs) in way of equipping them to make active role in the agricultural supply chain network

##### **Activities**

- A state level seminar was organized to corroborate the ecosystem of FPCs in Tamil Nadu
- The centre represented in a national seminar on FPOs at XIMB, Bhubaneswar
- New projects and agreements embarked on supporting women entrepreneurs

##### **Seminar- Building the ecosystem of FPCs**

CSIE along with ‘Sustainable Livelihood Institute’, Pondicherry organized a state level consultative seminar on ‘Building an ecosystem for FPOs in Tamil Nadu’ on 25-26 July, 2019. Representatives from World Bank, RBI, agribusiness providers, organic certification agencies, ecologists, academicians and stakeholders representing senior management of FPOs across Tamil Nadu attended the program. The discussions and briefings from various forums of the seminar have streamlined the interventions derived for ‘Tamil Nadu Rural Transformation (TNRTP)’ project, a mega project being implemented in 26 districts of Tamil Nadu.

##### **National Seminar on FPOs**

The seminar is organized every year and CSIE has been representing for the past 2 years. In the context of FPO policies, operational guidelines, practices and research outputs, a set of multi-dimensional issues and questions relating to the sustainability of FPOs were deliberated at the National Seminar on FPOs. The deliberations and outputs of this Seminar relate to the experiences of researchers, scholars from various fields, senior policy executives and senior practitioners in the field of FPOs that can improve the implementation process and give insights for further research on FPOs and related issues. The case studies and insights conveyed by CSIE have been included in the [‘Synthesis report’](#) drafted further to the seminar and the document is available online.

Apart from state and national level representations and deliberations on this context, Aishwarya Raman, Senior Project Officer at CSIE also made it to an international workshop organized by ICRA, Netherlands as ‘Making Agribusiness Work’. The workshop was organized at Ibadan, Nigeria and it enabled cross cultural knowledge sharing and learning of novel tools and techniques in the value chain analysis of farmer collectives.

- Presented CSIE’s activities and research on FPOs to ‘Additional Chief Secretary, Rural Development & Panchayat Raj’
- Made visits to SIRD, Maraimalainagar to establish potential focus areas for CSIE in TNRTP

### **3.3.2 Business Development and Livelihood enhancement of Pathamadai weavers' community**

**Funding source: Tamil Nadu Handicrafts Development Corporation Ltd., RmKV Silks CSR**

**Objective:** To improve the livelihood of the weavers in Pathamadai by penetrating technology developed by Rural Technology Action Group -RuTAG and business development by establishing market linkage.

**Activities:**

- A part of the Pathamadai Mat Weaving Society has been renovated into a Common Facility Center by commissioning 2 of the RuTAG developed Electronic Jacquard Handlooms. Training has been given to the weavers.
- After successful training of the weavers, CSIE appointed a Marketing cum Production, Mohammed Fathima (daughter of one of the weavers) for the Pathamadai Mat Weaving Society along with training in Social Media Marketing.
- 32 Designs; 100+ Mats; Rs. 2,00,000+ in revenue has been facilitated with the current infrastructure and training.
- IIT Madras placed an order for Gandhi Motif mats and presented to the Hon'ble Prime Minister of India Shri. Narendra Modi during the convocation ceremony in August 2020.
- The picture has been shared on PM's official Social Media Handles; Instagram, Twitter and Facebook.
- 4 more machines have been installed by RuTAG IIT Madras in January 2020.

### **3.3.3 Commercialization and Transfer of Technologies developed by Shri MurugappaChettiar Research Center (MCRC)**

**Funding source: MCRC**

**Objective:** To identify the technologies which are market ready for transfer and to connect potential entrepreneurs to take up the selected technologies.

**Activities:**

CSIE facilitated interaction with three entrepreneurs for two technologies: Fortified Panchagavya (FP) and Biochar during the Phase1 of the project. As a result, one entrepreneur has commenced production of FP on a trial basis.

CSIE has received additional funding from MCRC to undertake the Phase2 of the project involving Technology Transfer.

CSIE facilitated technology transfer of Biochar technology to M/S SSV Oil Mills, Pattukottai. The unit was commissioned on 03 August 2019. Production at SSV Mills started at capacity of 50 Kg selling to local goldsmiths and laundry workers with plans to expand the capacity.



### **3.3.4 Skill Development Project at Nagapattinam**

**Funding source: CSR project by Chennai Petroleum Corporation Ltd. (CPCL)**

Objective: Skill development of the youth in three villages in Nagapattinam district namely Panangudi, Vellapakkam and Goparajapuram.

Activities:

- First Skill Center established in Vellapakkam village. Inaugurated on 01 July 2019 by Dr. S. Suresh Kumar, IAS, District Collector, Nagapattinam and Mr. S.N. Pandey, Managing Director CPCL.
- The first batch comprising of 21 for tailoring and 6 for IT have passed out in December 2019. Certificates were issued to the participants on
- A motivational workshop by a faculty from Puducherry University has been organized for the trainees.
- Second batch of skill training in Tailoring and IT has started on January 2020.
- In addition to the above skills, Spoken English training is being given on the weekends to the school students and women from the village.

### **3.4 Outreach**

CSIE offers 1-3 day/s entrepreneurship awareness programs, capacity building programs to high school students, students and faculty members from higher educational institutions & social entrepreneurs.

#### **3.4.1 Faculty Development Program (FDP)**

**Funding Source:** Fullerton India Private Limited

15 faculties from various colleges across India participated in a 1-week FDP on Entrepreneurship conducted by CSIE from 10-15 June 2019 at IIT Madras to promote entrepreneurial thinking among faculty and help them become trainers of Entrepreneurship at their respective institutions. The program was composed of lectures by IITM faculty, industrialists and entrepreneurs including field visits to Mahindra City World, Pi-Beam Labs and FIBSOL.

#### **3.4.2 Idea Spark 2019-20**

CSIE as part of its social entrepreneurship promotion project sponsored by Fullerton India, conducted the Grand Finale of Idea Spark competition along with Shaastra, the annual technical festival of IIT Madras on 06 January 2020 at New Academic complex (NAC) Building at IIT Madras. The theme of the event was "Promoting Sustainable Livelihood Technologies of Indian Artisans". The main objective of the event was to facilitate technology transfer to the Indian Artisans who lack modern technological support. The participants included students from Engineering and Arts colleges of Tamil Nadu. The jury comprised of faculty from IIT Madras and

Mr. Ethirajan Bhaskaran, Joint Director, Dept. of Industries and Commerce, Tamil Nadu. Staff members from Rural Technology Action Group (RuTAG), IIT Madras also took part in the event. The program comprised of power-point/video presentations and demonstrations of prototypes by the student participants. A cash award of Rs. 1,75,000/- has been given to the top three teams. Details below:

- 1st Prize - Team Agri Stars, Kongu Engineering College, Perundurai, Erode. Prototype : Seed Sowing Machine
- 2nd Prize - Team Kongunadu Mechanizers, Kongunadu College of Engineering & Technology, Thottiam, Trichy. Prototype : Engine Care Equipment
- 3rd Prize - Team Inspired Innovators, Kongu Arts and Science College, Erode. Prototype : UNISONOUS- A Hearing Aid Equipment

### **3.4.3 IITM-RWTH Student Entrepreneurship Summit 2019**

The “IITM-RWTH Student Entrepreneurship Summit 2019”, jointly organized by IIT Madras and RWTH Aachen University brought together young innovators from India and Germany to create lasting connections and to enable cooperation in environmentally and socially relevant fields of action. The event was embedded in a 2-week-stay of students of RWTH at IIT Madras and was conceptualized as a joint initiative by CSIE and RWTH Aachen University, International Office, Division International Strategy.

The summit built upon prior connections between CSIE and RWTH and the two teams of Enactus e.V. Aachen and Enactus IIT Madras, both engaged in social entrepreneurship initiatives, who co-organized the event. An ongoing cooperation existed in the field of biotechnology, which enabled an involvement of iGEM Aachen e.V. and iGEM IIT Madras. The summit aimed at expanding these success stories to include topics like electric mobility, app development, and architecture and clean water and energy efficiency.

Altogether 16 people from RWTH came to Chennai, representing 6 different initiatives and start-ups. With the inclusion of exchange students and guest scientists, ca. 20 persons with RWTH-affiliation took part in the event. Through the IITM-internal network, CSIE enabled the inclusion of outstanding entrepreneurs based in IITM’s Research Park and invited senior IITM faculty members. *The summit was presided by the Chief Guest, German Consul General Ms. Karin Stoll.*

### **3.4.4 Train the trainer Program on Entrepreneurship for Polytechnic Faculty**

#### **Funding Source: CSR funds from Cap Gemini Technology Services India**

- A One Day Consultation Meeting on Entrepreneurship for the Polytechnic Faculty of Tamil Nadu was conducted by CSIE at IIT Madras on March 13th, 2020. The programme was led by Prof. L.S.Ganesh from Department of Management Studies (DoMS), IIT Madras.
- In Continuation to that, a 4-day webinar on “Setting up of Incubation Cells in the Polytechnic Institutions” was conducted for the Tamil Nadu polytechnic faculty on the following dates: 9th, 11th, 12th and 16 th May, 2020.

### **3.5 Research**

#### **3.5.1 EngineeringforChange (E4C) Research Collaboration**

- CSIE guided two fellows of E4C in their research work titled “Challenges for commercialization of sustainable technologies”
- The final report is published on the E4C. [Report can be found by clicking here.](#)

#### **3.5.2 Research activities by the staff**

An article on technology transfer by James Rajanayagam, Senior Project Officer at CSIE has been published online. [Click here to read the same.](#)

### **4.0 Sustainability and Finance**

#### **Corpus Funds by Prof. Dinesh Kumar Kant**

Prof. Dinesh Kumar Kant, RMIT University, Australia, an IITM alumnus of 1982 batch has generously donated to CSIE a corpus fund of Rs.50 lacs. CSIE thanks Prof. Kant for the support and the faith in the mission of CSIE. The proceeds from the interests of the corpus will be targeted towards women entrepreneurship promotion & sustainable innovation imbibing Chanakya’s principles of Vedic management.

**Photographs:**



International  
Winter School on  
Sustainable  
Architecture: Dec  
2019



MSDE UKIERI  
Building Social  
Entrepreneurship  
Capacity



Faculty  
Development  
Program



IITM RWTH Student Entrepreneurship Summit 2019



Idea Spark 2019-20



Seminar on FPOs



Biochar unit at SSV Oil Mills



narendramodi



Liked by **chandanabhukya** and **711,744 others**



Mohd. Fatima  
Manager, Common Facility Centre

Livelihood Enhancement project of  
Pathamadai Weavers Community



Train the trainers program for ITI and Polytechnic Faculty

