



Project Report

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

The Centre for Social Innovation and Entrepreneurship (CSIE) at IIT Madras was founded in August 2010 with a focus on teaching and research related to social enterprise in India. It aims to bring together the innovation and entrepreneurship aspects of IIT Madras by creating knowledge and understanding that will be relevant to the problems that the poor in India face.

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 through academia.

This is achieved by:

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

1.2. CSIE seeks to distinguish itself through

- Its focus on delivering social enterprise knowledge primarily to engineering students, with the aim of developing their ability to develop and deliver technology solutions that create social impact
- Its focus on academic research that will seek to address problems exclusively within the Indian context

The Centre for Social Innovation and Entrepreneurship (CSIE) focuses on two fronts:

1. Education about social enterprises: It is widely recognized that if the poor are to pay for innovative products and services being developed by social enterprises, these products and services need to be designed for affordability. Academic institutions have a strong role to play in educating the scientists of tomorrow with the knowledge and skill needed to design and innovate for affordability.

2. Contributing to existing literature about social enterprise: The social enterprise sector is still relatively new. There is little common understanding on what constitutes a social enterprise. There is also little information available on what are the best ways to help the sector grow. Academic interest in this sector within India has been limited. Consequently, available literature is also hard to come by. It is estimated that in the whole of Asia there are just 25 universities that conduct research on social enterprises. Academic institutions such as

IIT have a strong role to play in contributing to existing literature on the sector, through primary and secondary research methods.

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
Dean, International & Alumni Relations, and Professor, Chemical Engineering
- Prof. L.S. Ganesh, Professor, Management Studies
- Prof. Ashwin Mahalingam, Assistant Professor, Civil Engineering
- Prof. Devendra Jalihal, Professor, Electrical Engineering
- Prof. John Bosco Lourdusamy, Associate Professor, Humanities and Social Sciences
- Prof. K.N. Satyanarayana, Professor, Civil Engineering
- Prof. L. Prakash Sai, Professor, Management Studies
- Prof. Mahesh Panchagnula, Professor, Department of 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

2.1. Staff

- James Rajanayagam, Project Consultant, CSIE
- K. Vijayalakshmi, Project Officer, CSIE
- Vidhiya Saravanan, Project Associate, CSIE

3. EDUCATION

3.1 Minor Courses in Innovation and Social Entrepreneurship

Description

Minor specialization is an integrated, three-semester stream, consisting of four courses (choice between two courses), available as elective to students of the B.Tech. and M.A. Development Studies/English programmes in their third and fourth years. Students from other degree programmes may also take courses as electives; the maximum number of enrolments allowed is 40, and the Minor is fully subscribed. The Minor is a 10-credit programme.

The Minor is multidisciplinary, with faculty from various departments including Management, Humanities & Social Science and the engineering branches. Practicing social entrepreneurs and domain experts deliver guest lectures.

The course lays emphasis on two aspects:

- A theoretical understanding of the business of enterprise and innovation, in particular focusing on its relevance for India's marginalized communities
- Practical understanding of establishing and running an enterprise, including developing appropriate technology, product and business development

Table: Courses in the Minor, course content and output

Social Enterprises in India	<ul style="list-style-type: none"> • Theory • Case studies • Guest Lectures by practitioners • Rural field visit/visit to SE 	Case Studies
Product Design and Business Models	<ul style="list-style-type: none"> • Problem definition • Creative problem solving (TRIZ techniques) • Engineering design and prototyping • Business models and strategy • Entrepreneurship and finance 	Business plans
Laboratory based (at Centre for Innovation, CFI)	Prototyping Lab	Prototypes
Rural field study	Rural visits	Business plans

Table: Statistics of Minor – No of students, projects, guest speakers, field visit

Batch	2009–2010	2010–2011	2011–2012	2012–2013	2013–2014	2014-2015
Average student enrolment per course	34	36	40	40	35	40
Student projects undertaken						
Course 1	11	14	15	10	12	
Course 2	7	10	12	9	11	10
Course 3	2	4	7	4	4	
Course 4	4	3	5	5	3	
Number of guest lecturers invited in 4 courses	20	20	21	24	18	21
Field visits in Course 1, 4	2 visits by entire class	2 visits by entire class	2 visits by entire class	3 visits by entire class	3 visits by entire class	1 visits by entire class (to date)

Students of the laboratory course at the CFI Lab worked on projects and develop prototypes e.g. Bio sand filter, Milk adulteration test kit, Haemo-analyser, Automatic waste segregation. Students of the rural field study course prepared business plans after visits to village e.g. handmade products, Community Centre and Oyster Mushroom cultivation. The students gain information through interaction with various stakeholders in village and social enterprises.

The output of the course 'Product Design and Business Model' are proof of concept (PoC) and business plan of 10 projects, e.g. Trauma Care, Universal Toilet coverage, Ergonomic chair, Scientific farming.

4. ACTIVITIES

4.1 EVENTS

4.1.1 Camp on Social Innovation through Technology for School Students

CSIE conducted two camps on '*Social Innovation through Technology*' for School students during Summer and Winter respectively. A 5-day Summer camp was conducted on 12-16th, May 2014 in association with TVS Srinivasan Services Trust and a 3-day Winter camp on 14-16th January 2015 at IIT Madras. It was designed to create awareness about the role of technology and entrepreneurship to solve socially relevant issues. About 140 students from private and government schools in Tamil Nadu participated.

Prof. R. Nagarajan, Dean IAR inaugurated the programme and dwelt on the objectives and nature of the camp. Faculty from IIT Madras and social entrepreneurs gave talks on topics like Social Issues, Innovation and Technology, Nurturing Creativity, Entrepreneurship and Engineering in everyday life. On the final day of valedictory programme, certificates were given to all the students by Prof. R. Nagarajan. At the end, students presented their learning's, feedback about the programme and also ideas of their future course of actions.

4.1.2 Faculty Development Program on Creative Pedagogy

CSIE and Tagore Engineering College jointly organised a 1-day faculty development program on "*Creative Pedagogy: Fostering Student Creativity and Innovation*" at IIT Madras on 28th, November 2014. 55 faculty from 19 different colleges participated. The program was inaugurated by Prof. R. Nagarajan, Dean I&AR, IIT Madras. The morning session was covered by Prof. L.S Ganesh and Prof. Mahesh Panchagnula, from IIT-Madras, who gave talks on "Understanding technological innovation and creativity" and "My experiences with student innovations" respectively. In the afternoon, "Workshop on Nurturing Creativity" was conducted by Shri. Sivasubramanian, Founder, Paperclip. This was followed by a visit to Centre for Innovation (CFI) Lab at IIT-Madras. The valedictory session was presided by Dr. P. Kasinatha Pandian, Principal, Tagore Engineering College. Finally, certificates were issued to the participants.

4.1.3 Idea Spark 2014 - Grand Finale

CSIE conducted the Grand Finale of Idea Spark 2014 on 10th, January 2015 at IIT-Madras. 22 teams from seven engineering colleges in Tamil Nadu including IIT-M participated. In the morning session, Prof. Ashwin Mahalingam gave a talk on '*How to identify an entrepreneurial opportunity*'. In the afternoon, 22 teams presented their ideas before the jury panel, which included Shri L.Kannan, Founder & CTO of Vortex Engineering Private Ltd, Prof. Devendra Jalihal from IIT-M, and Shri Joseph Thomas, VP, International Development Office, IIT-M. The top 3 ideas were selected. Prof. R.Nagarajan, Dean I&AR, gave the valedictory speech and distributed the certificates and cash prizes.

4.1.4 Talk on Art of Business - Building

CSIE in association with Shaastra 2015 (annual technical festival of IIT Madras) organised a talk on 'Art of Business Building' on 4th January, 2015 at IIT Madras. Shri Arul Dev, Founder of People First delivered the keynote address on '*Role of Entrepreneur in Building Thriving Organizations*' and Shri Kedar Kulkarni, Founder of Hyperverge spoke about his entrepreneurial journey. About 50 people participated and interacted with the speakers.

4.1.5 CSIE and NASE - Impact Metrics

CSIE in partnership with the National Association of Social Enterprises (NASE) conducted a workshop to understand how companies capture and track the change that is occurring or has occurred as a result of their work. As a first step, social entrepreneurs were invited to answer a short questionnaire. The findings were shared at a round table featuring academics, investors and social enterprises on the 1st, December 2014 at Ashoka Office, Bangalore. Shri. Joseph Thomas was a facilitator for the session "*Impact Metrics: View from the ground*" with a focus on the challenges faces and future course of action. Ms. K. Vijayalakshmi and Ms. Vidhiya Saravanan from CSIE attended the conference.

4.1.6 Brainstorming session between Tamil Nadu State Rural Livelihood Mission (TNSRLM) and Rural Technology & Business Incubator (RTBI)

CSIE, organized a brainstorming session for the companies incubated under RTBI with TNSRLM on 18th, July 2014. The meeting was presided by Smt. Mythili K. Rajendran, IAS, Managing Director, TNSRLM. The program was organized to create understanding about the activities undertaken by TNSRLM and the incubated companies of RTBI in the non-farm products domain and to explore the opportunities for collaboration. The incubated companies described the uniqueness of their products and services, and benefits rural communities experienced. The meeting ended with Shri. Joseph Thomas, Project Consultant, CSIE giving the valedictory address and a commitment by TNSRLM and RTBI to meet again for more detailed discussions in September, 2014.

4.1.7 Seminar on Innovation & Entrepreneurship

In association with CSIE and Deshpande Foundation, the Centre for Entrepreneurship Development from Karnataka Law Society's Institute of Management Education & Research (KLSIMER) conducted a seminar on '*Innovation & Entrepreneurship*' along with a business plan competition. About 200 students attended the seminar and CSIE played the role of knowledge partner. The event was organised for two days (8 and 9th, May 2014) at KLSIMER, Belgaum. Prof. L.S. Ganesh, IIT Madras delivered the keynote address on '*Basic Concepts of Social Entrepreneurship*' and Ashwin Mahalingam, Assistant Professor, IIT Madras gave a speech on '*Business Plan writing*'.

4.1.8 Workshop on Corporate Social Responsibility

CSIE and Karnataka Law Society's Institute of Management Education & Research (KLSIMER) in association with TiE, Hubli conducted a 1-day workshop on 'Corporate Social Responsibility' for entrepreneurs, teachers and students on 27th, September 2014 at KLSIMER, Belgaum. Around 100 entrepreneurs from North Karnataka participated. The workshop aimed at helping the companies to perceive CSR and align it to their core business objectives. Shri R.S. Balasubramanyam, Head CSR, Aditya Birla Nuvo Limited, inaugurated the workshop. Dr. M.P. Ganesh, Professor, IIT Madras spoke on 'CSR as Stakeholder Management'. Shri Joseph Thomas, CSIE gave a presentation on 'Role of Academic Institutions' in supporting CSR initiatives.

4.2 NETWORKING & COLLABORATION

- Universities and Councils Network on Innovation for Inclusive development in South East Asia (UNIID-SEA) Project Advisory Committee Meeting on 25 – 26th, July 2014 at Manila, Philippines and 7th, November 2014 at Jakarta, Indonesia
- UNIID-SEA launched the IID Fellows Program on 27th, July 2014 in which Shri. Joseph Thomas was selected as an IID Module/Course reviewer for the IID fellowship program.
- Participated in Artha Venture Challenge 2014 as a jury member on one of the panels for this challenge.
- Participated in the conference on "*Assistive and Rehabilitation Technologies*" with the theme of 'Inclusive technologies for an improved quality of life' organised by Tamil Nadu Technology Development and Promotion Centre of Confederation of Indian Industry (CII) on 22nd, August 2014 in Chennai.
- Participated as a Social coach for the '*eBay Inc. Opportunity Hack*' event conducted by Paypal in Chennai on 11th, October 2014.
- Participated in the Rural Technology Action Group (RuTAG) Advisory Committee Meeting on 18th, November 2014 as External consultant at IIT-M.
- Participated in UK- India University Dialogue on Social Enterprise, as a Panellist and Speaker in the session on "*Learning Approaches: in and outside classroom leading to innovation and stronger social economy*" on 25-26th, September 2014 at New Delhi.

- Participated in the Global conference on "*Securing food for all – Critical need for coherence in policies and action*" at New Delhi organised by the Club of Rome, India on 30-31st, October 2014. CSIE was one of the knowledge partners.
- Participated in 2014 Southeast Asia Conference on "*Innovation for Inclusive Development (IID)*" at Jakarta, Indonesia on 5 - 6th, November 2014. Shri Joseph Thomas chaired two sessions on "Open Education and Open Access as Pathways to Inclusive Development" and on "IID Teaching and Learning Packages: Water, Sanitation, and Health". He was also a panellist in the session "What next: UNIID-SEA Project Advisory Committee perspectives".
- Participated as a member of interview panel for recruiting Junior and Senior Research Fellows (JRF/SRF) for the project titled "*Development of Healthy Villages using Eco-WASH Initiatives*" which was sanctioned by the Department of Science and Technology - NCSTC on 9th, December 2014.
- Participated in the networking reception organised by British Council on 6th, February 2015 in Chennai.
- Participated in networking dinner by Ashoka on 7th, February 2015 in Chennai, where they shared their ideas and work towards creating a common space for learning and growth in Chennai.
- Participated in "*UK-India University Dialogue on Social Enterprises*" by British Council from 10-14th, February 2015 in London.

Other Meetings

- Shri. Nigel Majakari, CEO, Chilasa Venture Philanthropy Ltd met Prof. R. Nagarajan at Geneva on 6th, September 2014
- Participated in the International Conference on "*Social Entrepreneurship and Sustainable Development*" was organized by Centre for Social Entrepreneurship, School of Management and Labour Studies, Tata Institute of Social Sciences, from 4 - 7th, February 2015 in Mumbai.
- Participated in the launch of IvyCamp, an entrepreneurship development platform connecting institutes and alumni of premier institutes on 13th, February 2015 at Mumbai.
- Technology Business Incubator (TBI) of Vellore Institute of Technology - Vellore conducted a Technology based Entrepreneurship Development Program on Food Processing. Shri James Rajanayagam from CSIE was invited to handle a session on '*Opportunities & Challenges in Food Processing*' sector on 19th, February 2015.

4.3 RESEARCH PAPERS

- Joseph Thomas, Gavin Melles, Blair Kuys, Charles Ranscombe. '*Social Entrepreneurship with design in Southern India - Lesson for Australia*'. Indo - Dutch International Conference on Design, Indian Institute of Science (IISc), Bangalore, July 2014

- Joseph Thomas, Gavin Melles presented a paper titled *"Taking Appropriate Technology to the Market: Stories of Social Enterprises"*, in the Green Economy and Innovation paper category, which was selected as a best paper in 6th International Conference on Appropriate Technology (6th ICAT), Kenya.

4.4 PROPOSALS & MoU's

- Tagore Engineering College, Chennai - August 2014
- Swinburne University, Australia - September 2014
- Karnataka Law Society's Institute of Management Education & Research, Belgaum - February 2015
- Vels University, Chennai - March 2015
- Prof. Sujatha Srinivasan (in collaboration with Shri. Joseph Thomas of CSIE) submitted a proposal on 'Affordable Standing Wheelchair' under "Affordable Healthcare", a Wellcome Trust scheme to support R&D in India. The project was approved for a grant of Rs. 3.08 crore over a 3 year period on November 2014.
- Capacity Building of Producer Companies - Proposal submitted on December 2014
- Entrepreneur promotion in Engineering colleges - Proposal submitted on December 2014

5. VISITORS

5.1 NYU Stern Business School

Through the initiative of Prof. Venkat Srivatsan from New York University's Stern School of Business, CSIE organised a visit to RTBI for his students on 8th, January 2015. The incubatees of RTBI - Edsix and Hyperverge had an interactive session with 24 students from NYU. The students also visited Centre for Innovation (CFI) at IIT Madras and interacted with team heads of CFI clubs.

5.2 Swinburne University, Australia

Students from University of Swinburne led by Prof. Gavin Melles had a meeting with CSIE to explore possibilities of student teams working on design challenges faced by social enterprises. The meeting was held on 27th, January 2015 at IIT Madras. As an output to the meeting, CSIE has enabled collaboration with a social enterprise for the students to work in their next term.

5.3 Ms. Nickala Torkington, UnLtd, UK

CSIE coordinated a visit for Ms. Nickala Torkington, UnLtd, UK and Shri Jayasingh Solomon, British Council to Rural Technology Business Incubator (RTBI) at IITM Research park on 24th, September 2014. Smt. Suma Prashant, Director of RTBI welcomed the visitors and highlighted the initiatives of RTBI for rural development over the years. She explained

RTBI's mission, activities and its achievements. Incubated companies like Desicrew, Skillveri, Edsix Brain Lab, Guvi presented the work being done by their organisations.

6. MANAGEMENT ACTIVITIES

6.1. Governance Committee Meeting

Regular meetings are being held to monitor the progress and plan further activities. Minutes of meetings are circulated among the GC members.

6.2. Internal documentation

The planning and informational documents on all activities within the centre are maintained and updated regularly. These include documentation of the Minor course, research proposals, events and reporting. CSIE Newsletters was started and circulated among various stakeholders

7. PHOTOGRAPHS



Speakers and Participants of Faculty Development Program on Creative Pedagogy



Winter Camp for School students



Idea Spark 2014 - Prof. Nagarajan distributing cheque to students from Bannari Amman Institute of Technology who secured 1st place



MoU exchanged by Prof. R. Nagarajan and Dr. B. Krishnamoorthy, Vels University



*Prof. Gavin Melles interacting with students during the class -
Product design and Business models*



UNIID-SEA's Project Advisory committee (PAC) meeting at Jakarta, Indonesia