**Project Title:** Design Thinking for Self-Help Groups

**Project Number:** ID00752

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**Research Clusters:**
Highlight which of the Academy’s CLUSTERS this project will address?
(Please nominate JUST one. For more information, see www.iitbmonash.org)

| 1 | Material Science/Engineering (including Nano, Metallurgy) |
| 2 | Energy, Green Chem, Chemistry, Catalysis, Reaction Eng |
| 3 | Math, CFD, Modelling, Manufacturing |
| 4 | CSE, IT, Optimisation, Data, Sensors, Systems, Signal Processing, Control |
| 5 | Earth Sciences and Civil Engineering (Geo, Water, Climate) |
| 6 | Bio, Stem Cells, Bio Chem, Pharma, Food |
| 7 | Semi-Conductors, Optics, Photonics, Networks, Telecom, Power Eng |
| 8 | HSS, Design, Management |

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**Research Themes:**
Highlight which of the Academy’s Theme(s) this project will address?
(Feel free to nominate more than one. For more information, see www.iitbmonash.org)

| 1 | Advanced computational engineering, simulation and manufacture |
| 2 | Infrastructure Engineering |
| 3 | Clean Energy |
| 4 | Water |
| 5 | Nanotechnology |
| 6 | Biotechnology and Stem Cell Research |
| 7 | Humanities and social sciences |
| 8 | Design |
The research problem

Define the problem

SHGs are “self-governed, peer-controlled, informal group of people, who share similar socio-economic status, and have a desire (need) to collectively perform in order to meet their individual needs primarily through resorting to small amounts of saving (thrift) and by using group loans for meeting their emerging credit needs.” (Chauhan 2004). SHGs are often supported through microfinance funding schemes by public and private banks through special institutions (such as the National Bank for Agriculture and Rural Development, NABARD, India). “Nearly 1.4 million SHGs comprising approximately 20 million women now borrow from banks, which makes the Indian SHG-Bank Linkage model the largest microfinance program in the world.” (Wikipedia 2016). NABARD, also provides skill development through specific training sessions to the SHGs members to encourage entrepreneurial activity, such as: beautician training, computer skills, cashew nut processing, hand making greeting cards, etc.

Where successful, it is claimed that SHGs have significantly empowered poor people, especially women, in rural areas. Studies have shown that SHG activities have generated “substantial increases” in income due, in part, to the low income levels at the outset but on the other hand, may increase workload on individuals without generating enough income for them.

*Design thinking* is a “process for creativity and innovation” often used “[to] address a wide variety of personal, social, and business challenges in creative new ways.” (Kelley and Kelley 2013). The process as commonly described has five aspects: *Empathise, define, ideate, prototype, test* (Stanford University Institute of Design 2017). This is contrast with how Indian typical SHG members search for solutions to their problems or come up with their indigenous solutions and entrepreneurial ideas.

This dissertation would present us with an opportunity to investigate and measure the role and impact of design thinking on the SHGs. This could well be compared with other interventions such as NABARD organized training schemes and skill development initiatives.

Key design questions will include:

1) Can design thinking training given in short and intensive sessions to self-help groups in rural India improve their ability at innovation and entrepreneurship with measurable results compared to self-help groups who receive no training?

2) Is it feasible to develop a training system to disseminate design thinking throughout a network of SHGs in India, in order to effect positive change?

Project aims

Define the aims of the project

Apply a process of action research to evaluate the *design thinking* process and to tailor that process into a feasible training programme directed at *self-help groups* in rural India.

Develop training procedures and a manual for training rural SHGs in design thinking.

Apply the tailored design thinking process to a sufficient number of SHGs and members in design thinking in order to positively affect their ability at innovation and entrepreneurship. Measure and compare the results with control SHGs who receive no intervention in design thinking.

Disseminate the design thinking training programme through a network of SHGs in India in a small pilot sub-project and publicise the outcomes.

Expected outcomes

Highlight the expected outcomes of the project

1. Tailored design thinking process training programme and manual for training self-help groups in the Indian context.

2. A completed study on training self-help groups in design thinking with conclusive results on the effectiveness of this training in promoting entrepreneurship and problem solving amongst the participants.

3. A media platform (for example a weblog etc.) to disseminate the study, and to recruit additional trainers and trainees for follow-up training. The platform may include training manuals, case studies, advice on the pros and cons, and pitfalls of design thinking training within this context.

4. To disseminate design thinking training to national decision makers (in the case of conclusive positive outcomes to the design thinking training for SHGs study).
How will the project address the Goals of the above Themes?

Describe how the project will address the goals of one or more of the 6 Themes listed above.

Capabilities and Degrees Required

List the ideal set of capabilities that a student should have for this project. Feel free to be as specific or as general as you like. These capabilities will be input into the online application form and students who opt for this project will be required to show that they can demonstrate these capabilities.

1. Undergraduate and graduate degree in a field related to design.
2. General familiarity with user-centered design.
3. Knowledge and experience of the design thinking process (training and experience from an established institution or company such as the Stanford D-School (USA), the Hasso Plattner Institute (EU), IDEO company (USA) etc. that is recognised for practicing design thinking, would be an advantage.)
4. Experience in teaching or training others in practical design processes (experience in specifically training the design thinking process would be an advantage.)

Potential Collaborators

Please visit the IITB website www.iitb.ac.in OR Monash Website www.monash.edu to highlight some potential collaborators that would be best suited for the area of research you are intending to float.

Select up to (4) keywords from the Academy’s approved keyword list (available at http://www.iitbmonash.org/becoming-a-research-supervisor/) relating to this project to make it easier for the students to apply.

Design
Humanities
Miscellaneous/Uncategorised