

An Indian-Australian research partnership

Project Title: Design a low-cost and affordable accommodation in the Indian context for the patients living on pedestrian paths.

Project Number ID00924

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Research Clusters:

Research Themes:

Highlight which of the Academy's CLUSTERS this project will address? <i>(Please nominate JUST one. For more information, see www.iitbmonash.org)</i>		Highlight which of the Academy's Theme(s) this project will address? <i>(Feel free to nominate more than one. For more information, see www.iitbmonash.org)</i>	
1	Material Science/Engineering (including Nano, Metallurgy)	1	Advanced computational engineering, simulation and manufacture
2	Energy, Green Chem, Chemistry, Catalysis, Reaction Eng	2	Infrastructure Engineering
3	Math, CFD, Modelling, Manufacturing	3	Clean Energy
4	CSE, IT, Optimisation, Data, Sensors, Systems, Signal Processing, Control	4	Water
5	Earth Sciences and Civil Engineering (Geo, Water, Climate)	5	Nanotechnology
6	Bio, Stem Cells, Bio Chem, Pharma, Food	6	Biotechnology and Stem Cell Research
7	Semi-Conductors, Optics, Photonics, Networks, Telecomm, Power Eng	7	Humanities and social sciences
8	HSS, Design, Management	8	Design

The research problem

India does not have a well-organised and well-regulated health care (especially cancer-care) system, the cost of treatment, travelling to seek care and disability due to cancer can push the most vulnerable below the poverty line, a situation made worse by India's lack of social protection. As living expenses are very high for the people coming from different villages or town to urban cities for their treatment. They cannot afford accommodation in these urban cities. We found most of the patients living on the footpath in unhygienic conditions were outsiders. Even though they were living on the footpath, they have to spend a huge amount of money every week on food and other travelling expenses which is unaffordable for the people with weaker financial backgrounds. The major challenge in these cities is congested space and high cost of accommodation. This dissertation aims towards understanding patient's needs and design intervention to solve such problems in Indian urban cities.

Current scenario –

<https://www.indiatoday.in/india/story/cancer-patients-hindmata-flyover-tata-memorial-hospital-parel-mumbai-1637357-2020-01-16>

<https://mumbaimirror.indiatimes.com/mumbai/other/food-donors-come-as-a-blessing-for-cancer-patients/articleshow/68880539.cms>

<https://mumbaimirror.indiatimes.com/mumbai/cover-story/go-slow-cancer-care-ward-under-the-flyover/articleshow/73258703.cms>

<https://www.youtube.com/watch?v=FAebZ7XpS1s>

Project aims

The main aim of the project is to study the current Indian hospital scenario, an understanding of patient needs and design a low-cost and affordable mobile accommodation in the Indian context for the patients living on pedestrian paths.

Expected outcomes

Research Outcomes:

RQ1: How do patients in Indian urban city manage to stay at pedestrian paths. This study will involve an ethnographic approach towards understanding the Hospital scene in various parts of India. The study can be scoped to understand the major challenges related to patient's accommodation, maintaining hygiene, mobility, storage space, safety, and accessibility. [duration: 1.5 years]

Deliverable: research paper

RQ2: How can existing issues identified in RQ1 be used to develop a design framework for designing affordable accommodation for the patients. The insights gathered from the previous stage [RQ1] will be collated together in light of existing frameworks and insights from disciplines of design. [duration: 1 year]

Deliverable: research paper

Design Outcomes:

D1: A low-cost and affordable mobile accommodation concept model will be developed for the patients living on pedestrian paths in India. A patent or design registration will be filed for this design.

[duration: 1.5 years]

Deliverable: design patent

How will the project address the Goals of the above Themes?

The project falls under the banner of **Design**.

Capabilities and Degrees Required

This project seeks a candidate who has a high sensitivity and skills in design and design processes. This would be expected of applicants from such disciplines as Industrial Design, Interior Design and Architecture. Those with an engineering degree and design might be considered but evidence of visual literacy and aptitude for innovation would be expected. Exposure to issues in the health industry would be an advantage.

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.

Healthcare, Medical Equipments, Design