

An Indian-Australian research partnership

Project Title: **Accessibility solutions for healthcare emergencies for rural areas**

Project Number ID00714

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Research Clusters:

Research Themes:

Highlight which of the Academy's CLUSTERS this project will address? <i>(Please nominate JUST <u>one</u>. 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		

The research problem

Define the problem

The pertinent underlying factor in the design of mobility systems used for healthcare emergency situations remains unchanged to commute the patient from Point A to Point B from an emergency site to the hospital.

There are plenty of solutions available for a full scale Ambulance service for cities. A large and overwhelming number of devices are used inside the ambulance, on a stretcher or on a wheelchair.

These devices provide preliminary medical attention, life support, first aid and many such facilities to the patient thereby making his transit more comfortable and convenient.

However for a remote area, reach and availability of a conventional ambulance is problematic. Non-existent road, minimal infrastructure support, system integration, expandability are some of the many issues that have to be dealt with.

This project targets design, prototype and testing of alternate accessibility solutions to transport patients from emergency situations in remote rural locations to a nearby healthcare centre. These solutions should be low-cost, efficient and support more effective mobility system.

Project aims

Define the aims of the project

Expected outcomes

Highlight the expected outcomes of the project

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.

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 www.iitbmonash.org**) relating to this project to make it easier for the students to apply.