

architecture for disaster reduction
and reconstruction,
7th i-Rec student competition



Addressing Different Forms of Vulnerability for Disaster Risk Reduction in Urban Contexts

in parallel with the 7th i-Rec international conference
London, UK, July 6-8 2015

introduction

Disasters are becoming more and more urban, increasingly affecting residents in informal settlements and those located in high-risk areas. These residents often face several vulnerabilities: they do not have tenure security, they have low levels of education and suffer from poverty and public health problems. They typically have insufficient access to infrastructure and services and lack political voice and representation. On the other hand, they also have significant capacities and resources and develop sophisticated mechanisms of adaptation to their hostile environments. Undergraduate and graduate students of architecture are invited to participate in an international competition that attempts to bring out innovative ideas to reduce disasters and their root causes in developing and developed countries and/or to radically improve post-disaster reconstruction strategies.

The 7th i-Rec international competition invites participants to:

1. Explore how interventions in the built environment can contribute to protect households and their livelihoods.
2. Explore innovative solutions to reduce vulnerabilities and enhance resilience to disasters, respecting contextual forms of living and use of space.
3. Develop a comprehensive approach to the issues of social and economic vulnerability, long-term resilience, economic recovery, social structural recovery, and sustainable development.



4. Show how the architecture and/or urban project can facilitate the long-term development of a vulnerable community by, for example, enhancing resilience, creating livelihoods, reducing vulnerabilities to natural disasters and conflicts, and fostering tenure security.
5. Study comprehensive solutions that go beyond the scale of the housing unit (the house, the apartment, the shelter) and that include the scale of the settlement and its surrounding area.
6. Examine not only the technical aspects of physical construction or reconstruction but also present a scenario for an organisational design that articulates the participants, their actions, their resources and how they are made available.

A selected bibliography is provided below. However, participants are expected to conduct basic research on the subject before preparing the projects. A selection of articles can be found in the i-Rec website:

<http://www.grif.umontreal.ca/i-Rec.htm>

suggested content

Individual approaches and different methodologies are accepted. However, as a reference, the following points may be considered:

1. Identify the context

- a. Identify a working scenario. Two scenarios can be studied in the 7th i-Rec competition:
 - A recent disaster in a human settlement located in a developing or developed nation (in the case of a post-disaster intervention), or
 - A human settlement vulnerable to disasters (in the case of a disaster reduction intervention)
- b. Closely examine the context of the human settlement in (i) the reconstruction program, or (ii) the disaster risk reduction project.
- c. Explore traditional forms of living, mechanisms of adaptation and patterns of housing and use of space. Identify local housing typologies, settlement patterns, traditional use of closed and open spaces, etc.



2. The technological approach to buildings, infrastructure and the settlement

- a. Examine **partial or total** construction (or reconstruction) of houses, and/or infrastructure and/or services. This might include examining options of core housing, transitional sheltering, progressive housing, buildings for mixed use, buildings and infrastructure for income generation, small workshops, etc.
- b. Examine the housing solution from the point of view of the settlement (a regional, urban or semi-urban scale). Students might explore, among others, a neighbourhood, a concentrated community, a part of a slum or a rural region.
- c. Examine the use of different technologies and compare “innovative” technologies with traditional practices in terms of costs, speed of construction, disaster resistant standards, social effects, acceptability, future availability, etc.
- d. Explain the technology(ies) used in the project.

3. The organizational approach and logistics

- a. Present an organizational design. Suggest in a diagram the roles and relationships between participants. For this you may answer the following question: Who does what, where, when and how?
 - b. Explain how the project can contribute to economic recovery, development, and livelihood security.
 - c. Explore the redistribution and decentralization of decision-making power among project participants.
 - d. Explore the coordination of local and external resources.
 - e. Propose timelines for the development of project activities: planning, design, management, financing, training, information, construction, etc.
 - f. Explain the logistics and phases required to develop the project.
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submission instructions

Entries must be completed online following 3 steps:

1. Register on the competition website: Complete the registration form online (select a user name and a password).
2. Prepare an 8-page document explaining your project and transfer it to a PDF file. This document must include graphic descriptions of the proposed technique and brief text describing the scenario and the organizational design. Organization charts, Pert diagrams, etc. are suggested for the presentation of the organizational aspects.

If the project is to be developed as an evolutionary process, different stages of the process should be illustrated. Provide a timeline of activities and explain the project lifecycle.

3. Upload the information using the registration form.
 - a. Upload 3 images: one at the architectural scale, one at the settlement scale and one of the organisational design. These images may or may not be included in the PDF file (as part of the 8-page document). Images must have less than 900 kb, however, they must be in good resolution. Only .jpg files are acceptable: name your files figure1.jpg ; figure2.jpg and figure3.jpg.
 - b. Include in the appropriate box a brief text of 200 words describing the most important elements of the project.
 - c. Upload the PDF document of 8 pages. This file cannot exceed 990 Kb. Students must consider the best resolution that can be obtained within the limit of the file size.

presentation guidelines for the PDF document

All submissions must be sent in electronic format. Only PDF files are accepted. PDF entries must follow the following requirements:

1. Format: Letter or A4.
2. Layout: Landscape (i.e. horizontally). Please note that the submissions will be seen only electronically. PDF files will be examined at a scale of 100%



3. Length: Maximum 8 pages, including all the images, text, references, tables, diagrams, etc. The text within the document should not exceed 1000 words.
4. Margins: Free. Students can suggest their own layout design.
5. Font: Free. Students can suggest their own layout design. However, please note that the size of the lettering must be appropriate to read when the PDF file is opened at 100%.
6. Cover page: Do not use a cover page to identify the authors. Instead, use a label in the first page with the following information: name of the students, name of the university, date, name of the supervisor (professor, teacher or instructor). As a reference see the label suggested in page 8 of this document.
7. Language: Text can be in English, Italian, French or Spanish

schedule

- Expression of interest: As soon as possible.
- Registration in the website: From November 2014 to May 10, 2015.
- Submission of projects: The website will only accept projects between April 10 and May 10, 2015
- Selection of prize winners: During the 7th i-Rec conference in UK

exhibition of projects

Only projects that follow the instructions will be accepted for the competition. Accepted entries will be permanently exhibited in the competition website. The projects will be shown and discussed during the full period of the 2015 i-Rec conference.

information

For more information about the student competition, please contact:

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fees

The student's participation in the competition is **free**. Student participants can attend the conference-workshop at the reduced registration fee.

prizes

During the 7th i-Rec conference, a jury of experts in the field will select one or a few projects for prizes. All the information regarding awards and the decision of the jury will be posted on the competition website.

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appendix: example of the label to be used in the PDF document

Name of the students:	University: Department:	Name of the supervisor: Department:	7th i-Rec student competition
Emails:	Postal address of the Department:	Email of the supervisor:	Country:
Telephone number:	Telephone number of the Department:	Telephone number of the supervisor:	Date: