

# design for rescue and disaster

a challenge and opportunities  
for designers, architects and engineers

Noemi Bitterman  
Technion-Israel Institute of Technology

Perugia, May 21-25, 2018

*Location*  
Engineering Pole, Via Groffredo Duranti 93

*Duration*  
5 days from 9:00 to 18:00

*University credits*  
3 CFU

*Participants*  
25 students of Building engineering-Architecture  
and Design courses

*Language*  
English

*Director of the Department*  
Annibale Luigi Materazzi

*Scientific coordinator of the workshop*  
Paolo Belardi

*Tutor of the workshop*  
Giovanna Ramaccini

organized by



UNIVERSITÀ DEGLI STUDI  
DI PERUGIA



with support of



“It is our duty to design for the needs of society- from developed countries through to the special requirements of the aged, the poor, the disabled and the sick” was stated by Victor Papanek (1927-99), educator and philosopher of design in his monumental book *Design For The Real World*. Nature and man-made disaster and emergency events are expanding, resulting in lots of casualties, injured and homeless people all over the globe. The goal of the studio is to increase students awareness and knowledge of disaster situations, explore special needs of diverse populations, characterize extreme and hazardous environmental conditions and design solutions for improving disaster problems, and wellness of sufferers and performance of the support team. However, mostly to design and plan the infrastructure to be prepared for the next unexpected disasters.

## design for rescue and disaster

Noemi Bitterman  
Technion-Israel Institute of Technology

Perugia, May 21-25, 2018

## about the lecturer

**Noemi Bitterman** is president of the degree in Industrial Design focusing on medical and social design at the Technion-Israel Institute of Technology. During her academic career she obtained a Master's Degree in Industrial Design and a PhD in Medical Sciences, as well as a post-doctorate scholarship at the University of Pennsylvania, USA. For 13 years she was the regular of the Industrial Design chair at the Faculty of Architecture and Town Planning in Haifa; previously she supervised the Hyperbaric Research Unit of dell'Israeli Naval Hyperbaric Institute (INHI), conducting basic and applied research on performance in extreme environments. She is currently a visiting professor at the IUAV University of Venice, where she teaches in the field of design for emergencies and disaster. The main research interests include hospital design, the operating theater of the future, portable hospitals for disasters, the Health Smart Home and wellness gardens. She is developing concepts for personalized or "tailor-made" design, using innovative technologies to favor the use by elderly and disabled people of both sexes; she also elaborates quantitative objective physiological methods for the design and evaluation of environments and equipment.

## about the programme

### MONDAY, 21

#### Lecture hall

**9:00-11:00**

Work opening and public lesson

*greetings*

Paolo Belardi

Design Course President DICA-UNIPG

Massimiliano Giofrè

Building engineering-Architecture Course Coordinator DICA-UNIPG

*partecipations*

Noemi Bitterman

Technion - Israel Institute of Technology

Civil Protection

#### "Laboratorio di progettazione e modellazione"

**11:00-13:00**

Studio (individual work)

**14:00-18:00**

Studio (individual and group work),  
students presentations and review

### TUESDAY, 22

#### "Laboratorio di progettazione e modellazione"

**9:00-13:00**

Lessons (*Performance in extreme environment*,  
*Biomimicry*) and studio (group-work)

**14:00-18:00**

Studio (group-work) and students presentation

### WEDNESDAY, 23

#### "Laboratorio di progettazione e modellazione"

**9:00-13:00**

Lesson (*Design for special populations*)  
and studio (group-work)

**14:00-18:00**

Studio (group-work), students presentations and review

### THURSDAY, 24

#### "Laboratorio di progettazione e modellazione"

**9:00-13:00**

Lesson (*Innovative technologies*)

studio (group-work) and review

**14:00-18:00**

Studio (group-work) and review

### FRIDAY, 25

**9:00-13:00**

#### "Laboratorio di progettazione e modellazione"

Studio (group-work) and review

**15:00-18:00**

#### Lecture hall

Conclusion of the work and public presentation

*greetings*

Franco Moriconi

Magnificent Rector UNIPG

Annibale Luigi Materazzi

Director DICA-UNIPG

Paolo Belardi

Design Course President DICA-UNIPG

Massimiliano Giofrè

Building engineering-Architecture Course Coordinator DICA-UNIPG

Franco Giacometti

Sole director Tecla srl

*presentations*

Students

Design Course and Building engineering-Architecture Course

*conclusions*

Noemi Bitterman

Technion - Israel Institute of Technology