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# SEED

Sustainable Energy Efficient Design

Code number: [201714](#)

201714\_POLIMI\_3\_Summary



Politecnico di Torino



Università di Catania



Università di Pescara



Università dell'Insubria



Università di Genova



Università di Reggio  
Calabria



Università di Firenze



CasaClima/KilmaHaus

**Project's key idea** The SEED design proposal is based on the definition of a general bioclimatic strategy (that we can define as the bioclimatic approach for mediterranean climate) and the adoption of variable, adaptive systems to modulate the energy fluxes through the envelope. It is intended as a sort of general rough regulation coupled with a fine tuning. The rough general regulation is obtained putting together different pieces to compose the appropriate envelope in a given context (Szentendre - Hungary, in this case) and for the specific set of activities. Different conditions through the time as well as a pattern of variable conditions into different spaces is a key approach in the mediterranean context as well as in the true bioclimatic design. The SEED design proposal is planned as a house in which several elements can be added to the general envelope in order to favor/guarantee the appropriate control in different environmental conditions.

**Project goals** Predict is better than cure, that's why we propose a house which can strongly modify its physical parameters in terms of mass, insulation and transparency. SEED prototype is planned as a house in which several elements can be added to the general envelope in order to favor/guarantee the appropriate control in different environmental conditions.

**Project impact** The base idea of the SEED team also allows to define 5 fundamental aspects of the project about construction, maintenance and use of the prototype, as well as to reach the performance goals required by the Rules of the SDE2019: 1. Economic saving, 2. Climate adaptation for additional parts, 3. Fast assembly, 4. Forecasting energy operation, 5. Hybridization of technologies.

Project Schedule		dic-17	gen-18	feb-18	mar-18	apr-18	mag-18	giu-18	lug-18	ago-18	set-18	ott-18	nov-18	dic-18	gen-19	feb-19	mar-19	apr-19	mag-19	giu-19	lug-19	ago-19	set-19	ott-19	
<b>Tasks</b>																									
<b>PROJECT MANAGEMENT</b>																									
Project planning																									
Project monitoring & internal audit																									
Project communication																									
Project review meetings																									
Detailed budgeting																									
<b>PROCUREMENT</b>																									
Vendor/supplier pre-qualification																									
Project vendor/supplier list																									
Project procurement schedule																									
Expediting procedure																									
<b>SCHEMATIC DESIGN</b>																									
Kick off meeting (Basic data and requirements communication)																									
schematic design process																									
Design review meeting																									
Design verification																									
<b>FRONT-END DESIGN (DESIGN FOR DEVELOPMENT)</b>																									
Project meetings with vendors/suppliers																									
Design development																									
Design review meeting																									
Design verification																									
<b>DESIGN FOR CONSTRUCTION</b>																									
Project meetings with vendors/suppliers																									
Design development																									
Design review meeting																									
Design verification																									
<b>OFF-SITE WORKS &amp; PREFABRICATION</b>																									
Manufacturing and assembly of different systems																									
Quality control																									
Transport on main workshop area																									
Pre assembly of the whole building																									
Final test on the preassembled building																									
<b>TRANSPORT ON SITE</b>																									
Packaging and boxing																									
Transportation																									
<b>ON SITE WORKS &amp; ERECTION</b>																									
Site preparation																									
Erection																									
Finishing																									
<b>COMMISSIONING &amp; START UP</b>																									
<b>COMPETITION</b>																									
<b>DECOMMISSIONING</b>																									

