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The cultural and scientific areas studied, since the years at university, have been concentrated on the design process and its central role in all the phases of the construction and industrial process. Particular attention has been given to technological innovations in the design process and the relative implications they determine in the design and construction processes through new products, new processes of production, new configurations and applications, despite their obvious differences in both architecture and industrial design.

The reason has been the deep rooted conviction that it is necessary to restore the organic relationship of continuity between the ideational dimension and the design one as a complex system of necessary "instructions" for the construction and the management of an artefact during its life cycle.

It is toward that end that the interest and effort in research, in applied experimental work and in teaching has been committed to:

- to consider the centrality of the design as a complex activity, at once both creative and technical which improves the quality of people's lives;
- to recover a "disciplinary resetting" of design with respect to the deviation of one of its conceptions as only technological, only interested in the functions of use, or only aiming for a formal and aesthetic result;
- to define the design process as the place for the production of innovations through the use of processes of an interdisciplinary character such as humanities/artistic, technical/scientific, economic/ management disciplines;
- to return to the design process the most complete and complex dimension which is, that it's both a cultural and technical activity;
- to focus attention on the field of relations of congruence between the purposes for which an artefact is made and the means used, ie, materials, techniques and shape, united in an indissoluble relationship;
- to analyze the implications of technological and production innovations on the processes of conception and implementation through the marketing of new products and new production processes;
- to recover the role of technology, which has been limited in recent years to standard rules, performance and quality, to the study of complex processes of transformation of material and im-material aspects to be implemented for the realization of a product;

With regards to the development of educational and research activities, undertaken by the Faculty, experiences have been made in both the disciplines of Industrial Design and Architectural Technology, that have brought about a thorough review of the objectives, instruments and methods of design research, starting from a reflection on the following issues:

- the issues posed by the profound changes taking place in the world of artefacts, in the global organization of production and consumption in relation to the development of new ways of life;
- the interaction between the natural environment, cultural environment, technological environment, which determines the continuous renewal of the required reference framework for the design, which brings about a social demand for change;
- the technological innovation as a result of the intersection of this application and the adaptive capacity of its various components, economic, organizational, design;
- the complexity of the project, which requires the synergistic collaboration, from the early stages, of all the internal and external expertise to the project.

In light of these issues, the research and teaching activity in recent years, has become a place of experimental design aiming towards new models of environmental structure and new product concepts, in agreement with the researchers - even of adjacent disciplines - research centers, productive sectors, interested in connecting with this research.

The research work has covered many aspects; the results have found convergence in teaching courses of the graduate level in Science of Architecture and Industrial and Environmental Design and in masters degree in Architecture and Industrial Design and Visual Communication.

The research has addressed the aspects of innovation in three main converging lines of research:

1. Innovative materials and technologies for the qualitative development of the built environment;
2. Innovative materials augmented materials and advanced technologies with particular reference to pervasive computing;
3. Improvement of technical constructive design processes.