



APPLICATIONS OF THE BUILDING ENERGY PERFORMANCE INDEX

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The book is not a collection of calculation worksheets for building energy performance, but an approach for the upgrade and establishment of the building energy performance index. The book is addressed especially to the energy design of new buildings, as well as to the energy rehabilitation of existing buildings. The target of the book is an extremely simple and robust one: the design of buildings which, at least from the point of view of energy resources consumption, would respond to the goals of the sustainable development. The correlation with the design based on ecological principles is a natural one and, consequently, the preparation of the necessary tools for the quantification of the building response to environmental actions, as well as to anthropic factors, is one of the goals of the book.

The credibility and necessity of the application of calculation models for simulation can be provided only by experiments on physical models at natural scale or at a scale appropriate to similar phenomena. The book makes a detailed presentation of an experimental research activity and insists on the validations which resulted in case of the application of certain models and on the invalidations specific to the application of other models. Thus, the advised reader can discern the way of proceeding and, in his turn, can build the calculation worksheet based on the validated models.

The book is addressed especially to university professors and doctoral students in the field of building thermotechnics, as well as to designers and researchers in the field. Nonetheless, energy auditors for buildings will find in the book the required elements for better understanding some steps of the special activity of energy rehabilitation of buildings.

We nourish the conviction that, among the people interested by the contents of the book we will count our colleagues the architects, especially the young ones, which can improve their knowledge and also verify the intuition specific to every creator of new, beautiful and useful objects, with elements pertaining to the phenomenological target of the products of their intelligence and ability, the building.

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