"Gheorghe Asachi" Technical University of Iasi, Romania

CONTRIBUTIONS TO THE IMPROVEMENT OF AMBIENTAL COMFORT IN RESIDENTIAL BUILDINGS

Vladimir Corobceanu[*], Răzvan Giuşcă, Raluca Giuşcă

"Gh. Asachi" Technical University, Faculty of Civil Engineering and Building Services,
43 D. Mangeron Blvd., 700050 Iasi, Romania

Abstract

The aim of the study is to outline new opportunities of improving buildings ambient comfort and thus to determine energy consumption cut down. The second half of the XX century witnessed the development of society disregarding the extent to which environment was affected by the industrial production; pollution was triggered by the widespread industry which made use of technologies whose main target was the increase of production output at any cost, an aggressive industry with respect to location areas; it was resorted the energy technologies without taking into account the introduction of processes with low energy consumption and environment protection. During the previous periods, resources were also used extensively as well as aggressively without minding the damage caused and ignoring measures of environment rehabilitation. By studying a number of villa preliminary designs, deliberately selected, it was noticed the architect's tendency to solve vertical movement by including a staircase in the preliminary design. Most likely this is the habit of architects trained before 1990, to use the staircase inspired from multi-storey buildings, block-type, and to apply it without any changes to villa buildings. Thus it can be seen the tendency of executing a staircase with the sole function of vertical passage. This leads to the allocation of larger areas for vertical movement and consequently a high consumption of resources. The research tries to emphasise new possible ways of realisation interior staircase that can partial diminish the energy consumption and optimize the flux between levels.

Key words: area flexibility; hygrothermal comfort, pathogenic germs

---

[*] Author to whom all correspondence should be addressed: e-mail: vcorob@ce.tuiasi.ro