

STRIVING FOR SUSTAINABLE ARCHITECTURE IN THE 21ST CENTURY – MAIN ISSUES IN THE DEVELOPMENT OF INNOVATIVE OFFICE SPACE CONCEPTS

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Abstract

The knowledge on office building in the past and present, how the workspace evolved to incorporate contemporary technological breakthroughs, was in this paper combined with goals of sustainable building in a “smart” office building design in Belgrade, Serbia, taking local factors into consideration to create a comfortable space for the employees in a dense urban matrix with a minimal environmental footprint, and considering the workflow of contemporary office spaces, its multi-directional input and increasingly horizontal work hierarchy. Issues of proper inputs for building today in the 21st century are thoroughly considered in this paper and respective building’s design features as shown here: how to deal with location, position and orientation of the building, organization of both formal and informal areas, natural ventilation, green glazed surfaces, solar energy, wind turbines, rainwater utilization measures, surrounding vegetation, lighting and appliances, and piezoelectric paving.

Keywords: Location, position and orientation; Formal and informal areas; Natural ventilation; Green glazed surfaces; Solar energy; Wind turbines; Rainwater; Vegetation; Lighting and appliances; Piezoelectric paving.