Architectural Engineering and Executive Design: Modelling Procedures, Scientific Tools, Simulation Processing

Authors : Massimiliano Nastri

Abstract : The study is part of the scientific references on executive design in engineering and architecture, understood as an interdisciplinary field aimed at anticipating and simulating, planning and managing, guiding and instructing construction operations on site. On this basis, the study intends to provide an analysis of a theoretical, methodological, and guiding character aimed at constituting the disciplinary sphere of the executive design, often in the absence of supporting methodological and procedural guidelines in engineering and architecture. The basic methodologies of the study refer to the investigation of the theories and references that can contribute to constituting the scenario of the executive design as the practice of modelling, visualization, and simulation of the construction phases, through the practices of projection of the pragmatic issues of the building. This by proposing a series of references, interrelations, and openings intended to support (for intellectual, procedural, and applicative purposes) the executive definition of the project, aimed at activating the practices of cognitive acquisition and realization intervention within reality.

Keywords : modelling and simulation technology, executive design, discretization of the construction, engineering design for building

Conference Title : ICAEDT 2022 : International Conference on Architectural Engineering Design and Technology **Conference Location :** Toronto, Canada **Conference Dates :** Sontember 20.21, 2022

Conference Dates : September 20-21, 2022