

Constructive systems for glass domes with wide areas "Application on Egypt Mosque"

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Abstract:

The last period has witnessed a major leap in technology and building materials, in addition to the rapid development in simulation techniques and modeling computer programs. Such sequential achievements have opened the door to a whole new world full of potentials in the field of building and constructions, so architects and designers get to have the ability to fulfil their imagination with creativity and innovation with little worries about the structural constraints.

Due to the high significance of building a new managerial capital for Egypt and what this capital must have of technological development in the means, methods and materials of construction, many of the modern religious buildings including “Egypt Cultural Complex” and “Egypt Mosque” have been submitted to a very distinctive artistic and architectural visions, also innovative methods in construction, the most important ones are the design of glass domes with wide areas for this mosque. We have noticed the presence of many distinctive ideas that require specialized constructional designs.

That is how the research problem has appeared:

Which is the need to create untraditional constructional methods and systems to process the suggested design thoughts for the domes of “Egypt Mosque”.

The research goal:

Reach scientific solutions for the constructive systems for glass domes with open areas.

Keywords:

Wide areas- glass domes- constructive systems.