بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

Ain Shams University
Faculty of Engineering
Architecture Engineering

Guidelines for Implementation of Building Information Modelling in Egypt

A Thesis submitted in partial fulfilment of the requirements of the degree of Master of Science in Architectural Engineering

By:

Rehab Khaled El-Sayed Mohamed El-Guindy

Bachelor of Science in Architectural Engineering Faculty of Engineering, Ain Shams University, 2013

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Cairo - (2020)

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Statement

This thesis is submitted as a partial fulfilment of Master of Science in Architectural Engineering, Faculty of Engineering, Ain shams University.

The author carried out the work included in this thesis, and no part of it has been submitted for a degree or a qualification at any other scientific entity.

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'' In the Name of Allah ''

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ABSTRACT

The level of support provided by Egyptian Architecture, Engineering and Construction (AEC) stakeholders represented in both public and private sector regarding Building Information Modeling (BIM) diffusion, adoption and implementation on country scale has its peculiarities. Nowadays, BIM has become a generally accepted technology and process used among AEC Industry Stakeholders, However, Egypt is not a principal country in BIM adoption. Moreover, governmental countrywide technical reports regarding status of BIM use and the role of stakeholder in BIM adoption are absent. Thus, this research aims to present a developed general guideline for building information modeling implementation, and proposed responsibility matrix model (RACI matrix) for BIM diffusion from the prospective of the Egyptian AEC industry stakeholders. The exploration is done mainly through, the literature review, where deficiencies in AEC industry is listed, the role of BIM in overcoming the construction industry problems, BIM systems in various selected countries were reviewed to highlight the successful practices in this field. In addition to examine the current status of BIM in Egyptian AEC online surveys were sent out to 250 with 62% response rate in addition to phone call interviews with selected sample for further data clarification and collection. Findings of this research have clearly identified the classification of the key stakeholders in BIM adoption, general guidelines for the roles of both public and private sector in promoting BIM implementation in AEC industry with particular focus on the role of the Governmental sector, finally generated proposed BIM RACI matrix model for BIM implementation in AEC industry. Furthermore, the current situation of BIM implementation in Egyptian AEC industry from the major stakeholders' perspective have been explained. Value of this thesis relay on introducing general recommendations for BIM adoption in Egyptian AEC industry based on the successful practices case studies analysis and the contextual situation of BIM adaption in Egyptian AEC industry.

Keywords: Building Information Modelling, key stakeholders, Egyptian AEC industry Stakeholders', BIM RACI matrix, BIM guidelines

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