

An Analytical Framework for Evaluating Architectural Education in the Age of Artificial Intelligence: A Deep Exploration of Student and Faculty Perspectives

Lamis Sayed Mohammadi Abdel Kader

Assistant Professor, Department of Architectural Construction Technology, Faculty of Technology and Education, Beni Suef University, Lamisabdelkader@hotmail.com

Abstract:

Artificial intelligence technology and its applications in architectural design are among the most prominent technological advancements that emerged at the beginning of this century. It has rapidly evolved to become a vital topic across various fields, especially in architecture. This research focuses on studying how to effectively utilize this technology in developing architectural programs and curricula, particularly in the fields of architectural design and technological materials. Additionally, the research aims to examine the role of artificial intelligence in enhancing the capabilities of contemporary architects and expanding their imagination and ideas. AI applications are tools that support architectural design independently, without the need for direct human intervention. This research seeks to survey the opinions of architecture students and faculty members in architectural departments on how to leverage the potential of artificial intelligence to serve the architectural profession in the future. This includes a historical overview of the origins and development of this technology, along with a look toward the future and the potential advancements it may bring to the field of architecture. The study also includes conducting surveys to collect opinions from students on the impact of AI applications on architectural design and the necessity of updating curricula to study and adapt these potentials to serve the future goals of architects. Finally, the research will analyze the data obtained from the survey to draw conclusions and provide the necessary recommendations.

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References:

- 1- Ibrahim Ahmed Al-Dajwi, The Philosophy of Development in Human Thought and Computer Technologies in Smart Architecture and Its Impact on Interior Design, Not Available, Cairo, 2016.
- 2- Yamna Hamdy, Application of Artificial Intelligence in Developing Interior Design Operations Management, Published Research, Journal of Design Sciences and Applied Arts, Volume 3, Issue 2, Cairo 2022
- 3- Artificial intelligence Encyclopedia Britannica (2021). <https://www.britannica.com/technology/artificial-intelligence> Copeland, B. acces 12 No v. 2021 ,18:30.
- 4- Artificial Intelligence Evolution in Smart Buildings for Energy Efficiency. 2021. Farzaneh, H., Malehmirchegini, L., Bejan, A., Afolabi, T., Mulumba, A., & Daka, P. P.
- 5- Application of AI technology in interior design)2020(. Chen, Z., & Wang, X. In E3S Web of Conferences Vol. 179, p. 02105. E3S Web of Conferences.
- 6- Classification of Furniture Styles, ACM Transactions on Intelligent Systems and Technology TIST,2017 Hu, Z., Wen, Y., Liu, L., Jiang, J., Hong, R., Wang, M. and Yan, S., Visual 8(5), 67.
- 7- Evaluation of Interior Design Schemes Based on Artificial Intelligence Processing Technology 2020 , Yanxia Zhang
- 8- Journal of Physics: Conference Series, Volume 1651, The 2020 second International Conference on Artificial Intelligence Technologies and Application ICAITA, China.
- 9- How to apply AI technology in Project Management 2019. 1, 2. Wang, Q.
- 10- Prospecting the future of a Design Industry- Post Pandemic 2020
- 11- Revisiting automated project management in the digital age—a survey of AI approaches 2019. Auth, G., JokischPavel, O., & Dürk, C.. Online Journal of Applied Knowledge Management OJAKM, 7(1), 27-39.

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- 12- Smart Home and Artificial Intelligence as Environment for the Implementation of New Technologies. 2018. Kopytko, V., Shevchuk, L., Yankovska, L., Semchuk, Z., & Strilchuk, R
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