

FUTURE OF 3D PRINTING TECHNOLOGY: A REVIEW

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ABSTRACT

Technological changes have remarkable effect on today's business world that triggers industries to reestablish the production systems. 3D printing has evolved with the new technological developments in additive manufacturing over the last three decades. 3D printing technologies enable design optimization and have advantages over conventional production methods. All industries should adopt the new era in order to survive in a rapidly changing competitive environment. The construction industry is also under technological developments' pressure to change. Therefore, 3D printing technology is under a great attention in construction industry as a new strategic challenge. The construction industry takes 3D printing as an idea of a new building technology. The main aim of this paper is to review the 3D printing technology applications of other industries, to review 3D printing attempts in construction industry and to comment on possible application areas for 3D printing intentions in construction industry. This paper summarizes the literature on 3D-printing applications used in other industries, with a focus on adaption strategies in construction industry. Major literature databases are reviewed about 3D printing researches and the trials of implementations in construction industry. Collected data is interpreted in the construction research jargon. The possible implementation areas in construction are suggested for future developments. The paper results in identifying and classifying the new developments in 3D printing technology in various industries and making projections on the possible adaptation areas in construction industry.

Keywords: 3D printing technology, 3D printing applications, construction industry.

