



Statistical quality assessment of 3D Printed products

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Abstract:

The present research considered the effects of different 3D printing parameters on quality of 3D printed products. The parameters included nozzle size, printing direction and product materials.

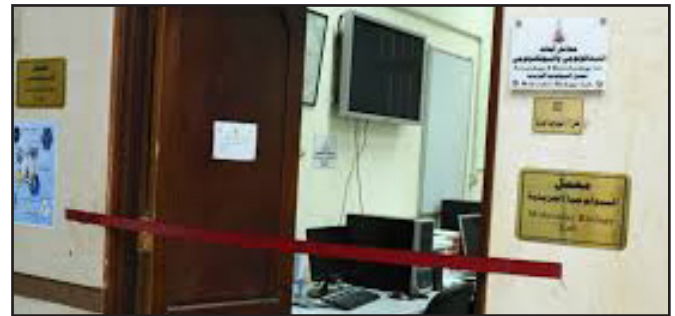
The quality assessment measures included surface finish and dimensional. Products were printed using the FDM technology. A full factorial set of experiments were conducted. For each experiment, dimensions and surface roughness measurement were taken at different locations of the products. Experimental results showed that the product quality is comparable to IT12 to IT16 manufacturing processes. Statistical analysis of results showed that the different printing parameters affects significantly the quality assessment measures. For relatively large dimensions, the material and nozzle size do not have a significant effect on dimensional accuracy.

Biography:

Essam Soliman has completed his education from Fayoum University, Egypt. He has published 8 papers in reputed journals. Currently he is working as an Associate Director of GIT at Foyoum University. His research interest mainly lies in the fields of Topical Medicine and Liver.

Publication of speakers:

1. Essam Soliman et al; Assessment of biosecurity measures in broiler's farms in the Suez Canal area



- Egypt using a seasonal prevalence of Salmonellosis, 2020 Apr 8.
2. Essam Soliman et al; Effectiveness of poultry litter amendments on bacterial survival and Eimeria oocyst sporulation, 2018 Aug 6.
3. Essam Soliman et al; Impact of lighting color and duration on productive performance and Newcastle disease vaccination efficiency in broiler chickens, 2019 Jul 17.
4. Essam Soliman et al; Prophylactic and immune modulatory influences of Nigella sativa Linn. in broilers exposed to biological challenge, 2017 Dec 12
5. Essam Soliman et al; Influence of microclimatic ammonia levels on productive performance of different broilers' breeds estimated with univariate and multivariate approaches, 2017 Aug 8

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