Online Perspectives Journal: Exact & Engineering
Proceedings of the 7th International Congress on Scientific Knowledge
6th Research & Development PROVIC/PIBIC
Vol. 11, Issue 33, Supplement, 2021

Bibliometric study of face protectors produced by additive manufacturing in times of COVID-19

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The fourth industrial revolution brought with it a set of technologies that are changing the way individuals and organizations carry out their activities on a daily basis. Additive manufacturing, commonly known as the 3D printing, it has been widely used around the world on face shields manufacturing against COVID-19. Thus, this project aim to seek, from a bibliometric research with a quantitative approach, to expand the knowledge regarding the manufacture of face protectors in additive manufacturing in times of COVID-19. For this purpose, a search was performed in the Scopus database, for works in all languages, using the following search strategy in the Title, Keywords and Abstract fields *[(3D, additive manufacturing, three dimensional, 3D print) AND (face shield; shield*; PPE; Personal protective equipment) AND (covid*; coronavirus; pandemic)]*. In the next step, a refinement and organization of the research data was carried out, with the support of Excel, in order to develop descriptive statistics. From a descriptive analysis of the published documents, it is observed that the publications have a recent date, from the year 2020. Of the 109 documents analyzed, 70 are Articles (64.2%); 16 are Reviews (14.7%) and the other 23 works are divided into Conference Paper, Letter, Editorial, Note and Book Chapter (21.1%). Despite only two years of publications, there are already works published in seven categories of document types. Thus, it is clear that it is a field that is still growing and favorable to new research and discoveries.

Keyword: Face shield; 3D printing; COVID-19.

Supported by: ISECENSA.