

# **Trends in failure studies of generation engines based on statistical models from 2007 to 2017**

Cardenas Escorcia, Yulineth del Carmen; Guillermo Valencia, O.; Eras, Juan Cabello

## **Abstract**

The diagnosis of failures in Internal Combustion Engines (ICM)-generation engines, has been considering one of the principal thematic axes of academic and industrial Research, Development and Innovation (R&D&I) based on the analysis of the specialized engineering literature within the Distributed Generation (DG) paradigm. With the aim of presenting the characteristics of the work related to failures in ICM and recognizing the global research focuses, a scientometric methodological approach of a systematic review of the publications indexed in Web of Science (WoS) has been carrying out from the perspective of bibliometric analysis for the period from 2007 to 2017. The H-index has been incorporating into this analysis to assess the visibility and impact of journals, authors, countries, and institutions with the highest levels of production and recognition in the field under study. The systematic review also made it possible to analyze the interaction between knowledge groups and networks with the authors and institutions identified in the ranking. The results show a significant increase in the number of publications, especially between 2012 and 2016, which allow the main dimensions of R&D&I related to the study of failures in ICM to be characterized and illustrated at a holistic level and provide added value to researchers interested in establishing cooperation and publication processes with journals, authors, institutions and potential actors in the study of ICM failures.

## **Keywords**

Internal Combustion Engines, Scientometrics, Bibliometric Analysis, Web of Science, H-index.