

## **THE EVOLUTION OF ENGINEERING**

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### **ABSTRACT**

The fields subjected to scientific studies are shown to change over time. Prominent subjects in the field of engineering in particular have undergone more significant changes based on the problems and opportunities of the period of time. The field and types of engineering have also developed and changed, with new fields being formed accordingly. When examining the emergence of engineering fields, the respective formations of civil engineering, mechanical engineering, and electrical and electronic engineering are closely related to the problems and opportunities of the time. This study examines the changes that occurred in the subjects and fields of engineering from 1866 to the present in terms of the articles that have been produced in this field. The research analyzes a total of 15.98 million publications published on the field of engineering from the SCOPUS database according to year of publication. Keywords are important metadata for a publication, and the variation in keywords has been analyzed in order to see how the field of engineering has changed. In this way, I've found an opportunity to look at the transformations in the field of engineering in terms of the change in keywords. This study presents the timeline and intensity of the works from 1926 to the present, such as the journey from tractors, engines, ... mathematical models to computer simulations. In addition to keywords, the study also analyzes the change in publications produced in the field of engineering according to year, the most published authors in this field, most published subjects, types of publications, types of journals, institutions, supporting organizations, countries, publication languages, and most cited publications. In this way, I holistically demonstrate the change that has been experienced in the field of engineering in all its aspects. In addition to this study presenting a holistic perspective of the field from 1866 to present, it also has the feature of providing ideas about engineering evolution.

Keywords: Evolution of Science, Civil Engineering, Mechanical Engineering, Electrical Engineering, Electronic Engineering, Bibliometric Analysis.