

Issue E3S Web Conf.
Volume 250, 2021
1st Conference on Traditional and Renewable Energy Sources: Perspectives and Paradigms for the 21st Century (TRESP 2021)

Article Number 08006

Number of page(s) 11

Section Smart Grids and Future Energy Systems

DOI <https://doi.org/10.1051/e3sconf/202125008006>

Published online 09 April 2021

E3S Web of Conferences **250**, 08006 (2021)

A systematic literature review of smart grids

Ihor Vakulenko¹, Liudmyla Saher^{2*}, Oleksii Lyulyov² and Tetyana Pimonenko²

¹ Oleg Balatskyi Department of Management, Academic and Scientific Institute of Business, Economics and Management, Sumy State University, 2, Rymkogo-Korsakova st., 40007 Sumy, Ukraine

² Department of Marketing, Academic and Scientific Institute of Business, Economics and Management, Sumy State University, 2, Rymkogo-Korsakova st., 40007 Sumy, Ukraine

* Corresponding author: lyudmila.sager@gmail.com

Abstract

The development and implementation of smart grids involve developing new and improvements in existing energy technologies, introducing information systems to manage the smart grid, monitoring and controlling energy consumption, and closely related to alternative energy and decarbonization of the economy. Scientific research of smart grids differs significantly in terms of topics because they aim to solve problems in each of these areas. Thus, this research aims to present a bibliometric overview to define the current scientific production state regarding “Smart Grid.” A review of 1359 publications from the Scopus database (2008–2020) was conducted. The “Title, abstract, keywords” field of search in the Scopus database was done. The visualization of the results was made using VOSviewer program to map the material graphically. The study used the cooccurrence of keywords and co-authorship (country) analyzes. As a result, the most productive authors and journals were defined. The most cited studies were determined. Country clusters and keywords (co-occurrence) clusters were represented. The obtained results of the analysis and graphical presentations are relevant, and they form the basis for a better understanding of Smart Grid’s concept.

© *The Authors, published by EDP Sciences, 2021*



This is an Open Access article distributed under the terms of the [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.