VINGNANAM Research Conference

21st of July 2022

VRC–2022

Faculty of Science
University of Jaffna
Sri Lanka

Jointly Organized by

Faculty of Science
University of Jaffna
Sri Lanka

Western Norway University of Applied Sciences

Mapping of clean energy research trend in Sri Lanka: A scientometric assessment

T. Janen[1]* and Y. Kesavan[2]

[1] Engineering Library, Faculty of Engineer, University of Jaffna, Sri Lanka

[2] Agriculture Library, Faculty of Agriculture, University of Jaffna, Sri Lanka

** Correspondence: jthivya@eng.jfn.ac.lk*

Scientific invention is not an independent process. There is a need to summarize previous research findings to progress further. In the past, a number of research studies were carried out on clean energy sources and technologies. The growing global population has increased energy demand, which is now exceeding the limit. Energy solutions should be supported by utilizing sustainable energy sources. The findings of this study describe the role of Sri Lankan researchers in the field of clean energy from 2002 to 2021. A scientometric approach was used to analyze the publications indexed in the Web of Science database. Different scientometric indicators such as different document types, major research areas, authorship patterns, funding agencies, and collaborated countries were used to analyze the retrieved data. From 2002 to 2021, 431 articles have been published by 930 authors from 292 research institutes. The total number of citations is 12,014, corresponding to 27.88 citations per paper. The research articles originate primarily from the University of Peradeniya, the Institute of Fundamental Studies and University of Jaffna. Sri Lankan researchers have collaborated with researchers from Japan, Malaysia, the United Kingdom, Norway, Australia and India. The core research activities in the field are mainly focused on wind energy and solar cells such as dye-sensitized solar and TiO_2/polymer solar cells, which are identified as emerging research areas among Sri Lankan researchers.

Keywords: Clean energy, Scientometrics, Bibliometrics, Sri Lanka, Research trend.