JOURNAL COVERAGE OF THE SOUTHEAST ASIAN SCIENTIFIC LITERATURE IN BIOLOGICAL WASTES: A BIBLIOMETRIC REVIEW

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This Final Year Project Report entitled "**Journal Coverage of The Southeast Asian Scientific Literature in Biological Wastes: A Bibliometric Review**" was submitted by Ku Arifah Amirah Binti Ku Paridilatras in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons) Physics, in the Faculty of Applied Science, and was approved by

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ABSTRACT

JOURNAL COVERAGE OF THE SOUTHEAST ASIAN SCIENTIFIC LITERATURE IN BIOLOGICAL WASTES: A BIBLIOMETRIC REVIEW

Over the time, biowaste volume has increased by several thousand tons per year. This is because society in SOUTHEAST ASIAN countries lack of knowledge in managing biowaste. Majority biowaste has come from nature and our home such that food scraps, biomass and yard waste. Due to the gaps in research publishing bibliometric analysis, this study offers a thorough bibliometric evaluation of the scientific literature concerning biowaste management in Southeast Asia. Bibliometric, a method that involve the statistical analysis of published works, identify research trends, networks of collaboration, and thematic focusses within the field. This study aims to prove the importance of bibliometric analysis in reviewing article and the show how crucial to study on biowaste management in Southeast Asian. by using information from the ScienceDirect database (2012–2025) and VOSviewer, software tools for constructing and visualizing bibliometric network, the study mapped institutional contributions, co-authorship, and keyword co-occurrence in 659 relevant research articles. It highlights the most contributed countries and institution in Southeast Asian that have published research journal and article on biowaste such as Malaysia, Indonesia and Thailand. The keywords and topics that frequently used in the publication is “bio-waste”. By using Vosviewer, five main research groupings highlighted in the findings which is circular bioeconomy and rural development, bioenergy and methane capture, sustainability and pollution removal, wastewater treatment, and agricultural biowaste valorisation. From 659 article retrieved, only 65 article was filtered and analysed. When using Vosviewer, it is crucial to properly clean the data and remove the irrelevant generic keywords before analysed using the software to get the most accurate data. However, notable differences in regional representation and the inclusion of policy and socioeconomic perspectives were seen. In addition to emphasising the growing importance of sustainable biowaste practices in the region, this analysis provides strategic insights for future interdisciplinary and cross-border research collaborations in Southeast Asia.

TABLE OF CONTENTS