

ANALYSIS OF MATERIALS TECHNOLOGY DEVELOPMENT IN SUPPORTING SUSTAINABLE DEVELOPMENT IN THE FIELD OF CIVIL ENGINEERING

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Abstract

In supporting sustainable development in the field of civil engineering, the development of materials technology plays an important role. Sustainable materials technology can help create environmentally friendly, efficient and long-lasting construction. The development of materials technology in the field of civil engineering is an important step in supporting sustainable development. By focusing on the use of environmentally friendly materials, efficient use of materials, structural sustainability, and innovation in construction technology, civil engineering can contribute to creating sustainable and environmentally friendly infrastructure. The development of materials technology in civil engineering contributes significantly to sustainable development goals. By prioritizing environmentally friendly, energy efficient, durable and innovative materials, the construction industry can build infrastructure that not only meets today's needs, but is also sustainable for the future. Apart from that, this approach also supports the social and economic welfare of society, making it a main pillar in sustainable development.

Keywords: development, materials technology, sustainable development, civil engineering

INTRODUCTION

Human needs in the era of society 5.0 are increasing and require several innovations in the creation and development of methods to meet human needs (Manzoor et al., 2021). Sustainable development is development that meets current needs without ignoring the impact on meeting the needs of future generations. The sustainable development agenda in 2030 is to achieve the "Sustainable Development Goals" or SDG's goals by realizing 17 points which are the main issues in the international world. In the world of construction, sustainable development is applied with the principles of sustainable construction. Baloi (2003) states that sustainable construction is part of sustainable development which is applied in the construction industry. Apart from that, it was also emphasized that sustainable construction refers to main issues including social, economic and environmental issues. Zavadskas