



STEM LEARNING AND INDUSTRY 4.0 AS A MEDIA FOR CLIMATE CHANGE IMPACT MITIGATION

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Digital technologies (cyber-physical systems, artificial intelligence, big data, augmented and virtual reality, and 3D-printing) have entered the sphere of industrial production and risen to the notion of a "fourth industrial revolution" or "Industry 4.0". there are also threats risking the development of industry 4.0 in the future. Out of five risks, four are related to climate change.

Digital Transformation in Industry 4.0



Industry 4.0 vs Climate Crisis

Global Risks Report		The 5 risks that will have the biggest impact in the next 10 years	
		Rank	Year
Disruption of major world cities		1	2030
Extreme weather events		2	2030
Natural disasters		3	2030
Failure of climate change mitigation & adaptation		4	2030
Water stress		5	2030

World Economic Forum, 2018

This research is aimed to find out the alternative solution to climate change impacts by utilizing the SDGs as global solutions. The data obtained from various resources such as recent reports, published journals and institutional publications are analyzed by the literature review method.

Digital Transformation for Sustainable Development



Digital Transformation for Climate Change Mitigation



it is found out that STEM learning, as one of the best alternative forms of quality education in SDGs, can facilitate students to develop climate literacy as well as the increase of 4C skills to develop the innovation to overcome climate change issues and fulfill the objectives in environmental SDGs. STEM learning can be utilized as a media to mitigate the impact of climate change through the use of 4C skills to make innovation.

STEM as Best form of quality education



STEM Project Related Climate Change Mitigation

