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A Platform for Managing Residents' Carbon Trajectories Based on the City Intelligent Model (CIM) 4.0

Authors: Chen Xi, Liu Xuebing, Lao Xuerui, Kuan Sinman, Jiang Yike, Wang Hanwei, Yang Xiaolang, Zhou Junjie, Xie Jinpeng **Abstract:** Climate change is a global problem facing humanity and this is now the consensus of the mainstream scientific community. In accordance with the carbon peak and carbon neutral targets and visions set out in the United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement, this project uses the City Intelligent Model (CIM) and Artificial Intelligence Machine Vision (ICR) as the core technologies to accurately quantify low carbon behaviour into green corn, which is a means of guiding ecologically sustainable living patterns. Using individual communities as management units and blockchain as a guarantee of fairness in the whole cycle of green currency circulation, the project will form a modern resident carbon track management system based on the principle of enhancing the ecological resilience of communities and the cohesiveness of community residents, ultimately forming an ecologically sustainable smart village that can be self-organised and managed.

Keywords: urban planning, urban governance, CIM, artificial Intelligence, sustainable development

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