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DEVELOPING SUSTAINABLE SMART CITIES TO IMPROVE CITIZEN'S QUALITY OF LIFE AND WELL-BEING

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In the wake of urbanization and environmental challenges, cities nowadays face multiple issues related to uncontrolled urban growth, insufficient public infrastructure, and inadequate citizen participation in the management of public affairs. Sustainable urban development cannot be achieved without addressing these challenges, necessitating a paradigm shift in urban space management. Therefore, urban development needs to shift traditional concepts and focus on incorporating smart and environmentally friendly practices that allow cities to adapt and implement intelligent solutions to meet the needs of their citizens while continuing to protect the environment.

To achieve sustainability, cities should prioritize a balance between economic activity, population growth, urban infrastructure development, and urbanization. Promoting sustainability in urban social, economic, and ecological domains requires the inclusion of technology advancement, supported by people's participation, into urban planning policies and practices through smart city development. Smart cities are gaining recognition as transformative urban environments that leverage technology and data to enhance the quality of life for citizens. While the concept primarily focuses on efficiency, sustainability, and connectivity, the profound impact on citizens' happiness and overall well-being cannot be understated.

The concept of a smart city should be a citizen-centric approach that places the well-being and happiness of citizens at its core. Innovative technologies and data-driven solutions can allow cities to meet the specific needs of their inhabitants. From efficient transportation systems and accessible healthcare to smart governance and inclusive public spaces, citizen-centric smart cities foster a sense of belonging and empowerment.

Smart cities hold immense potential to improve the citizens' quality of life. The seamless integration of advanced technology into urban infrastructures allows decision-making to optimize resource allocation, provide public safety, and offer convenient services for the people. For example, smart utilities such as efficient energy management and automated waste disposal can contribute to a cleaner and more sustainable environment, positively impacting physical and mental well-being. Moreover, smart healthcare systems can offer personalized and timely medical services, ensuring better health outcomes for citizens. In addition, smart cities can improve citizens' access to real-time information, collaboration platforms, and engagement with fellow community members. Digital platforms and smart urban design can further boost citizens' engagement in decision-making processes, fostering a sense of community and public participation.

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Subsequently, smart cities inherently promote sustainability by optimizing resource management, reducing energy consumption, and endorsing eco-friendly practices. Cities like Singapore and Amsterdam have implemented smart infrastructure and utilize renewable energy, such as water-based and wind-based technologies, to minimize their environmental footprint while ensuring a resilient future by implementing smart infrastructure and renewable energy sources. The inclusion of green spaces, pedestrian-friendly zones, and efficient public transportation systems may contribute to citizens' physical and mental well-being, fostering vibrant and sustainable communities.

Despite the importance of focusing on the positive aspects of smart cities, it is also essential to be aware of any potential issues. Concerns regarding data privacy, the technological gap, and the prospect that technology will exacerbate social differences must be addressed in advance to ensure the sustainability of smart city development.

Therefore, we believe that the potential of smart cities extends beyond technological advancements and environmental benefits. It also lies in smart city capability to improve citizens' quality of life and well-being. By placing individuals at the center of urban development, smart cities can provide efficient and accountable services, foster a sense of community, and enhance the overall quality of life. Policymakers, urban planners, and stakeholders must prioritize citizen-centric approaches and ensure that the benefits of smart cities are accessible to all to promote inclusion and equality. Then and only then can we establish cities that value the happiness and well-being of their citizens.

Promoting Research on Planning, Technology, and Management of Urban Development

Research on the planning, technology, and management of urban development plays a crucial role in advancing knowledge and generating innovative approaches to enhance the well-being of human beings in cities. In this edition, the CSID Journal of Infrastructure Development proudly presents a collection of nine papers that delve into this research area, offering valuable insights and perspectives.

The first paper, written by A.C. Haruna, S. Mukiibi, and A. Nnaggenda-Musana, examines the gender analysis of sustainable housing choices for rental household heads in Abuja Municipal Council, Nigeria. This study identifies the important economic, social, and environmental housing decision determinants using cross-sectional survey and questionnaire. The results highlight the importance of household income level, rental cost relative to income, housing characteristics, access to amenities, and environmental factors in deciding housing affordability.

The second paper, written by A. Wardhana, M. Ramayuda, F.F. Muhammad, A.P. Nariswari, S.D.C. Arifin, G.A. Wicaksono, D.R. Dianafi, M.I.R.S. Psf, discusses the Janjang Wulung Village community in Indonesia and its economic resilience post COVID-19 through creative economic village planning. The study examines the village's physical and non-physical circumstances, including pandemic effects on agriculture and livestock.

The third paper, written by B.M. Adeleye, K. Ssemwogerere, P.I. Mukwaya, A.T. Kiggundu, F. Omolo-Okalebo, and L.M. Kayondo, uses remote sensing and GIS data to assess urban transformation in Suleja Local Government Area, Niger State, Nigeria. The study examines the pattern of urban change from 1987 to 2019 and finds its key factors to provide insight into regional urban management and planning.

The fourth paper, written by A. Urrohmah, E. Ellisa, and A.H. Fuad, examines the impact of motorcycles on the permeability of Jakarta, a rapidly urbanizing city in Southeast Asia. It highlights the importance of motorcycles in enhancing mobility and accessibility in the city, particularly in areas with long distances and narrow streets. The research combines field

observations, online observations, and interviews with key actors to provide a comprehensive understanding of the role of motorcycles in transforming the layout of Jakarta's outskirts.

The fifth paper, written by L. Qu, G. Xia, and C. Bao, discusses the construction and preliminary application of the Carbon-Based Spatial Governance Performance Evaluation System for evaluating spatial governance performance by considering carbon-related indicators and providing insights into social and economic activities, energy consumption, and carbon emissions. The paper uses the system in Zhejiang Province to make spatial governance policy suggestions.

The sixth paper, written by M.A. Berawi, S. Dikun, R. Bintoro, M. Sari, and S.I. Susilowati, evaluates the use of insurance funds as a financing source for infrastructure development in Indonesia. It identifies insurance funds' main risks in infrastructure investment through consultation with experts and regulators. The study utilizes the analytical hierarchical process (AHP) method to assess the risks and prioritize the role and responsibilities of the government and private sectors in infrastructure investment.

The seventh paper, written by O. Luova, analyzes sustainable mobility strategies in Graz, Austria, and Hangzhou, China, from the late 1980s to 2020. It compares public transit and non-motorized mobility initiatives to sustainable, low-carbon, and smart traffic policies. The paper examines the growth paths of these two cities, identifies parallels and contrasts, and offers sustainable urban mobility research topics.

The eighth paper, written by O. Jakonen, addresses people-centric and inclusive smart city development. It discusses the necessity of defining key concepts like people-centric, effective participation, and inclusion. The study argues that people-centric smart cities should embrace participatory design facilitated by digital tools, recognize the complexities of specific places, and ensure that different demographics can benefit from smart initiatives in their everyday lives.

The ninth paper, written by T. Patriot, investigates the effectiveness of integrated traffic management in reducing driving speed on arterial roads. It utilizes an experimental approach to evaluate the impact of traffic regulations, such as speed monitoring with radar and motorcycle patrols, on vehicle speed and compliance with speed limits. The results suggest that these methods can reduce driving speed and improve road safety.

We hope this edition may convey new insight and knowledge that benefit our readers. We welcome any comments or inquiries that you may have concerning the direction and the content of this journal. We invite you to join our venture by sending your work for future consideration.

Warmest regards from the Editorial Office,



Prof. Mohammed Ali Berawi
Editor-in-Chief



Dr. Mustika Sari
Managing Editor



Perdana Miraj
Managing Editor