Blockchain, smart cities and territories

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Real-time GIS for smart cities

Digital twins

Definitions of smart cities

Critiques of smart cities

Smart cities and complexity

The real "smart"? Long term urban analytics

 $[\mathsf{Singh}\ \mathsf{et}\ \mathsf{al.},\ 2020]$

Intelligent transport systems

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[Balasubramaniam et al., 2021]
[Kumar et al., 2021]
[Jabbar et al., 2022]
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Privacy preservation

[Mezquita et al., 2021]

Securing smart grids

[Kathrine et al., 2021]

Agriculture

Synthesis

Conclusion

References I



Balasubramaniam, A., Gul, M. J. J., Menon, V. G., and Paul, A. (2021).

Blockchain for intelligent transport system.

IETE Technical Review, 38(4):438-449.



Jabbar, R., Dhib, E., ben Said, A., Krichen, M., Fetais, N., Zaidan, E., and Barkaoui, K. (2022).

Blockchain technology for intelligent transportation systems: A systematic literature review.

IEEE Access.



Kathrine, G. J. W., Javadi, B., Peter, J. D., and Palmer, G. M. (2021).

An intelligent blockchain-based framework for securing smart grid. In *Industry 4.0 Interoperability, Analytics, Security, and Case Studies*, pages 81–94. CRC Press.

References II



Kumar, R., Kumar, P., Tripathi, R., Gupta, G. P., Kumar, N., and Hassan, M. M. (2021).

A privacy-preserving-based secure framework using blockchain-enabled deep-learning in cooperative intelligent transport system.

IEEE Transactions on Intelligent Transportation Systems.



Mezquita, Y., González-Briones, A., Casado-Vara, R., Wolf, P., Prieta, F. d. I., and Gil-González, A.-B. (2021).

Review of privacy preservation with blockchain technology in the context of smart cities.

In Sustainable Smart Cities and Territories International Conference, pages 68–77. Springer.

References III



Singh, S., Sharma, P. K., Yoon, B., Shojafar, M., Cho, G. H., and Ra, I.-H. (2020).

Convergence of blockchain and artificial intelligence in iot network for the sustainable smart city.

Sustainable Cities and Society, 63:102364.