

Supplementary File 2. Scientific mapping of the bibliometric data of the review materials

Table SF1. Summary of reviewed article types

Type	Count
Research paper	22
Review paper	17
Conference paper	15
Book chapter	3
Report	11

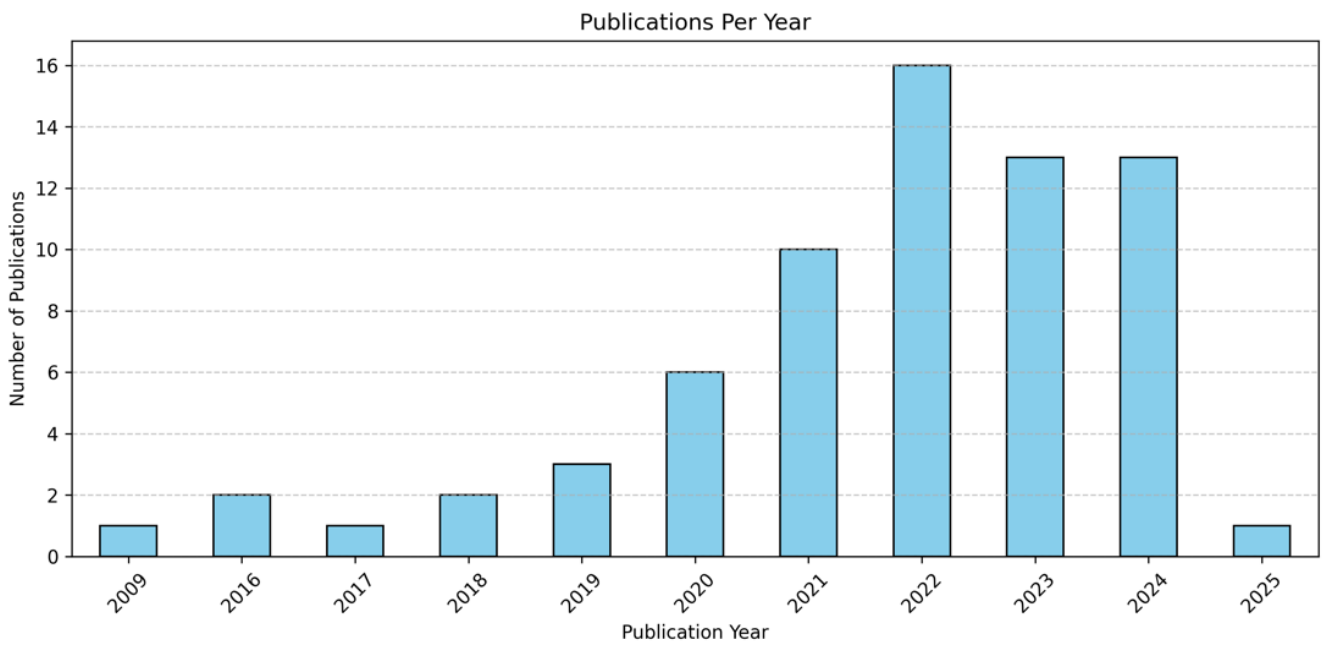


Figure SF2. Distribution of publication year

Table SF2a. Top 5 most cited review papers

No.	Title	Authors	Source Title	Year	Total citations
1	A systematic review of a digital twin city: A new pattern of urban governance toward smart cities	Tianhu Deng, Keren Zhang, Zuo-Jun (Max) Shen	Journal of Management Science and Engineering	2021	512
2	Differentiating Digital Twin from Digital Shadow: Elucidating a Paradigm Shift to Expedite a Smart, Sustainable Built Environment	Samad M. E. Sepasgozar	Buildings	2021	310
3	From digital to sustainable: A scientometric review of smart city literature between 1990 and 2019	Chuanjun Zheng, Jingfeng Yuan, Lei Zhu, Yajing Zhang, Qihu Shao	Journal of Cleaner Production	2020	287
4	A Review on Digital Twin Technology in Smart Grid, Transportation System and Smart City: Challenges and Future	Mina Jafari, Abdollah Kavousi-Fard, Tao Chen, Mazaher Karimi	IEEE Access	2023	234
5	Digital twin of a city: Review of technology serving city needs	Ville V. Lehtola, Mila Koeva, Sander Oude Elberink, Paulo Raposo, Juho-Pekka Virtanen, Faridaddin Vahdatikhaki, Simone Borsci	International Journal of Applied Earth Observation and Geoinformation	2022	179

Table SF2b. Top 5 most cited research papers

No.	Title	Authors	Source Title	Year	Total citations
1	Smart innovative cities: The impact of Smart City policies on urban innovation	Andrea Caragliu, Chiara F. Del Bo	Technological Forecasting and Social Change	2019	685

2	Digital Twin as a Service (DTaaS) in Industry 4.0: An Architecture Reference Model	Shohin Ahelerooff, Xun Xu, Ray Y. Zhong, Yuqian Lu	Advanced Engineering Informatics	2021	591
3	A digital twin smart city for citizen feedback	Gary White, Anna Zink, Lara Codecá, Siobhán Clarke	Cities	2021	513
4	The Digital Twin of the City of Zurich for Urban Planning	Gerhard Schrotter, Christian Hürzeler	PFG—Journal of Photogrammetry, Remote Sensing and Geoinformation Science	2020	425
5	Disaster City Digital Twin: A vision for integrating artificial and human intelligence for disaster management	Chao Fan, Cheng Zhang, Alex Yahja, Ali Mostafavi	International Journal of Information Management	2021	409

Table SF2c. Top 5 most cited conference papers

No.	Title	Authors	Source Title	Year	Total citations
1	Digital Twin and Its Application in Transportation Infrastructure	Yan Gao, Shuyue Qian, Zihan Li, Ping Wang, Feiyue Wang, Qing He	2021 IEEE 1st International Conference on Digital Twins and Parallel Intelligence (DTPI)	2021	90
2	The Digital Twin Tackling Urban Challenges with Models, Spatial Analysis and Numerical Simulations in Immersive Virtual Environments.	Fabian Dembski, Uwe Wössner, Mike Letzgus	eCAADe + SIGraDI Conference—Architecture in the Age of the 4th Industrial Revolution	2019	45
3	Digital Twin: A City-Scale Flood Imitation Framework	Maysara Ghaith, Ahmed Yosri, Wael El-Dakhakhni	Canadian Society of Civil Engineering Annual Conference 2021	2022	21
4	Community Dynamics in Smart City Digital Twins: A Computer Vision-based Approach for	Dimitri Mavrokapnidis, Neda Mohammadi, John Taylor	Proceedings of the 54th Hawaii International	2021	19

	Monitoring and Forecasting Collective Urban Hazard Exposure		Conference on System Sciences		
5	Airport Digital Twins for Resilient Disaster Management Response	Evangelia Agapaki	LION 2022: International Conference on Learning and Intelligent Optimization	2022	11

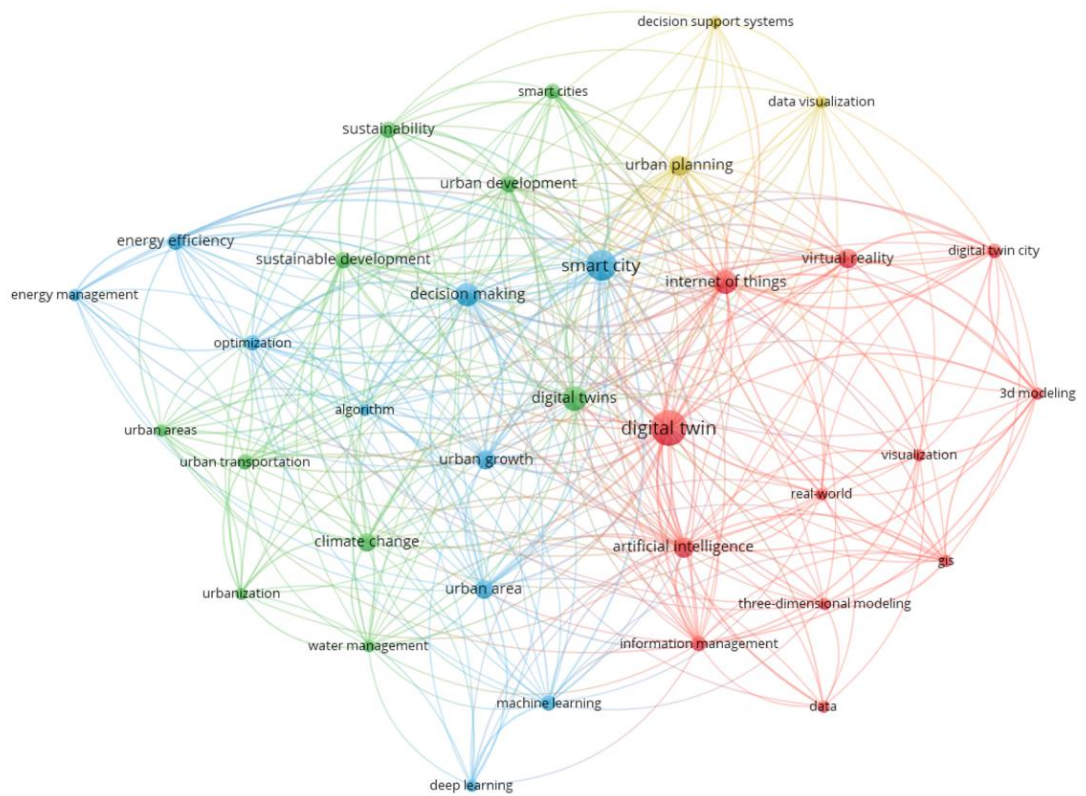


Figure FS3. The network visualization map of co-occurrence of keywords.