

**Table of contents – Inhaltsverzeichnis:**

<b>Preface</b> .....	5
Manfred Schrenk	
<b>A New Adaptation Strategy to Changing Local Climatic Conditions in Urban Areas? The Use of Leaf-Turning Tree Species</b> .....	13
Judith Geib, Sascha Henninger	
<b>An Approach to Investigate the Relationship between Spatial Configurational Pattern and Heritage Classification: Case study Alexandria City</b> .....	23
Yasmine Arafa, Tarek Farghaly, Dina Saadallah	
<b>Analysis of Digital Technological Applications in Public Transportation Systems Ticketing and Communications: Reviews of Singapore, Sydney, Cape Town and Lagos Experiences</b> .....	37
Kiara Lawrence, Trynos Gumbo, Godfrey G. Musvoto	
<b>Assessment of Residential Electricity Consumption and Renewable Energy Self-Sufficiency – a Case Study of Tainan, Taiwan</b> .....	47
Yi-Hsuan Shen, Hsueh-Sheng Chang	
<b>Balancing Heritage Preservation and Regeneration in Riyadh: Objectives and Considerations</b> .....	59
Mayas Nadim Ahmad Taha	
<b>Bedarfsverkehr im ländlichen Raum zur Sicherung der letzten Meile, Analyse erfolgreicher Fallbeispiele aus dem Bundesland Salzburg</b> .....	73
Roman Klementsitz, Igor Woloschtschuk, Roxani Gkavra, Gregor Husner, Yusak Susilo	
<b>BIM and Carbon Emissions Nexus: A Way Forward for Reducing Carbon Emissions in the South African Construction Industry</b> .....	85
China Mashinini, Trynos Gumbo, Jeffrey Mahachi	
<b>Chronicles of Peri-Urban Expansion in Small Rural Towns: a Comprehensive Study of Makhado Biaba’s Built-Up Areas from 1995 to 2022</b> .....	91
Ngudo Winny Nthangeni, Trynos Gumbo, Emmaculate Ingwani, Nils Ekelund	
<b>Circular Economy Principles and Planetary Boundaries</b> .....	103
Matthias Haase, Mihaela Meslec	
<b>Climate Change Impacts on Food (In)Security: a Case Study of Enyezane, Kwazulu-Natal, South Africa</b> .....	113
Bonakele Mazibuko, Vuyiswa Letsoko	
<b>Climate Resilient Sponge Cities – Concepts and Tools to Integrate Green-Blue and Grey Systems</b> .....	123
Stefan Rau	
<b>Conceptualising Smart Cities in the Japanese Planning Culture</b> .....	137
Karina Pallagst, Jonas Pauly, Marian Stumpf	
<b>Cruising in KL: Lokalisierung und Quantifizierung von Parksuchverkehr mittels Floating Car Data</b> .....	149
Julia Mayer, Hossam Zaki	
<b>Decoding Stress – ein interdisziplinärer Analyseansatz zur Identifikation Stress auslösender Faktoren für den urbanen Rad- und Fußverkehr</b> .....	159
Nina Haug, Peter Zeile, Markus Nepl	
<b>Developing a Technological Innovations Framework for Energy Security: a Case of City Power, Johannesburg</b> .....	171
Nkosingizwile Mazwi Mchunu, Trynos Gumbo, George Onatu	
<b>Development of an Energy Transition Cycle in the City of Eisenstadt</b> .....	183
Robert Pratter, Philipp Novakovits, Lukas Gnam, Werner Tschirk	
<b>Digital Human – Introduction</b> .....	191
Pietro Elisei, Vasily Popovich, Manfred Schrenk, Tatiana Popovich, Ivan Griaznykh	
<b>Digital Space of a Human: From Philosophy to Computer Science</b> .....	205
Pietro Elisei, Vasily Popovich, Manfred Schrenk, Tatiana Popovich, Ivan Griaznykh	
<b>Does City Smartness Improve Urban Environment and Reduce Income Disparity? Evidence from an Empirical Analysis of Major Cities Worldwide</b> .....	219
Oleg Dashkevych, Boris A. Portnov	
<b>Ein Ultraleichtflugzeug, Luftbilder, KI-Algorithmen und Geofach- und Geosachdaten – wie in Landsberg am Lech durch den Einsatz neuer Technologien ein digitaler Zwilling für die Stadt-, Klimaanpassungs- und Mobilitätsplanung aufgebaut wird</b> .....	235
Daniel Broschart, Marina Fischer, Juilson Jubanski, Florian Siegert	

<b>Emotionen im Radverkehr messen, vergleichen und verstehen: Evaluation verschiedener Erhebungsansätze in der Stadt Osnabrück</b> .....	245
Nina Haug, Céline Schmidt-Hamburger, Peter Zeile	
<b>Employee Behaviour as a Possible Corporate System Vulnerability when Implementing Digitalisation in Smart Cities</b> .....	257
Lara Sehlmeier, Hans Rüdiger Kaufmann	
<b>Empowering Ageing: Navigating the Future of Digital Healthcare for Older Adults – a Rapid Review of Perspectives and Challenges</b> .....	265
Amina Singh-Mehta, Philipp Nixdorf, Sophia Schulz	
<b>Evaluating the Impact of Urbanisation on Climate Change: A Case of Kochi City, Kerala State, India</b> .....	275
Adinarayanane Ramamurthy, Faiz Ahmed Chundeli, Aswinth G Chandran, Taruni Joshi	
<b>Evaluating the Potential of Vertical Farming Business Models for Sustainable Agriculture and Food Security in Cameroon</b> .....	285
Edith Vefemsi Vikih, Hans Rüdiger Kaufmann	
<b>Examination of Sustainable Human Resource Management on Employee Performance Indicators</b> .....	299
Marleen Christ, Henning Tirrel	
<b>Exploring Community Resilience Strategies in the Face of Escalating Heat Waves: a Comprehensive Study of Giyani, South Africa</b> .....	307
Sharon Rikhotso, Trynos Gumbo	
<b>Exploring ESG Practises and Livelihoods Promotion Nexus in Mining Host Communities: Lessons from Aggeneys, Pella and Pofadder Mining Host Communities</b> .....	317
Khwathelani Tshifularo, Trynos Gumbo, Innocent Moyo	
<b>Exploring Generative AI in Planning: A Scenario-Building Simulation for the Master Plan of Bari, Italy</b> .....	321
Domenico Camarda, Mauro Patano	
<b>Fostering Gender-sensitive Mobility: Recommendations in the Context of Carsharing</b> .....	333
Linda Dörrzapf, Sonja Gruber, Ornella Marovic	
<b>Foundation for a Theoretical Framework on the Location of Manufacturing Firms in the Vicinity of Airports</b> .....	341
Masilonyane Mokhele	
<b>Functional Integration of Rural Communities with Propulsive Urban Growth Centre in their Vicinity through Nature Base Solutions</b> .....	353
Papiya Bandyopadhyay Raut, Sandeep Kumar Raut, Vivek Kumar	
<b>GreenTwin: Developing a Digital Twin for Sustainable Cooperative Mobility and Logistics in Rural Areas</b> .....	361
Ye Eun Bae, Jan Ole Berndt, Joachim Brinkmann, Guido Dartmann, Andreas Hucht, Annegret Janzso, Sam Kopp, Anna Kravets, Chantal Lidynia, Vivian Lotz, Marlies Morgen, Ralf Philipsen, Stephanie C. Rodermund, Alexander Schewerda, Jens Schneider, Henrik te Heesen, Ingo J. Timm, Kristof Ueding, Martina Ziefle	
<b>Investigating the Research Landscape of Virtual Reality in Built Environment Education on the African Continent: a Bibliometric Review</b> .....	375
Nischolan Pillay, Kiara Lawrence, Trynos Gumbo	
<b>ISEK<sup>4</sup> – A Regional Approach to Inner City Development</b> .....	389
Petra Hirschler, Martin Aufhauser, Tom Brandstetter, Malene Buchenberger, Theresa Janesch, Annalisa Mauri, Elio Pescatore, Florian Pühringer, Markus Tomaselli, Sibylla Zech	
<b>Latent Heat Storage to Improve the Urban Microclimate</b> .....	399
Lars Erlbeck, Gamze Ünsal-Peter, Thomas Walch, Hans-Rüdiger Kaufmann, Matthias Rädle	
<b>Maintaining Water and Sanitation Service Delivery in Rural and Peri-Urban North West Province of South Africa: Governance as Social or Entrepreneurial Responsibility?</b> .....	407
Samson Olaoluwa Faboye, Trynos Gumbo, Kgomotso Jackson Phillip Sebola-Samanyanga	
<b>MELT Plates: The Abolition of Overheating in Lightweight Buildings through an Optimised form of Latent Heat Storage</b> 413	
Frederik Wunder, Sebastian Sonnack, Tanja Vetter, Thomas Walch, Hans-Rüdiger Kaufmann, Matthias Rädle	
<b>Partizipation und Planung der aktiven Mobilität: Der Einsatz von Cape Revisos Methodenkoffer am Beispiel Herrenbergs</b> .....	421
Céline Schmidt-Hamburger, Peter Zeile, Nina Haug, Thomas Obst	
<b>Policy and Legislative Enabling Environment for Implementing Digital Technologies in the Local Government Sector: a Case Study of South Africa</b> .....	431
Tlou Phillemon Mathane, Trynos Gumbo, Eric Nyembezi Makoni	
<b>Regeneration of Urban Sites with Circular Economy Principles</b> .....	439
Matthias Haase, Mihaela Meslec	
<b>Revitalising our Urban Landscapes: A Call for Territorial Regeneration</b> .....	451
Radostina Radulova-Stahmer	

<b>Security and Compliance in Cloud Environments .....</b>	<b>457</b>
Anmol Kumar, Christoph Sandbrink	
<b>Small-scale Production Sites as Part of Urban Resilience Infrastructure: The Intersections of Urban Planning and the Fab City.....</b>	<b>469</b>
Kimberly Tatum, Jörg Knieling	
<b>Smart Cities and Infrastructure Development: A Case Study of the Gauteng City Region in South Africa .....</b>	<b>481</b>
Boy Johannes Mashabela, Trynos Gumbo, Jeffrey Mahachi	
<b>Smart Cities through Online Dating and Sustainability – Responsible Leadership in Smart Cities.....</b>	<b>493</b>
Ursula Schinzel	
<b>Smart Culture: Digitisation Strategies of two Museums in Tuscany .....</b>	<b>505</b>
Niccolò Fiorini, Costanza Noferi	
<b>SMEXI – a Data-Based Approach for the Small-Scale Investigation of Sustainability Goals in Cities .....</b>	<b>517</b>
Martin Memmel, Akhil Yeerasam	
<b>Spatial Justice in the Distribution of Smart City Digital Technologies: Three Area-Based Case Studies of Free Municipal Wi-Fi in the City of Tshwane, South Africa.....</b>	<b>527</b>
Tlou Phillemon Mathane, Trynos Gumbo, Eric Nyembezi Makoni	
<b>Spatial Strategies for Economic Growth within “Net Zero Land Take” .....</b>	<b>535</b>
Jan Zaman	
<b>Suitability of the Residential Location of Older People: towards a Typology in Flanders, Belgium .....</b>	<b>543</b>
Wesley Gruijthuijsen, Dominique Vanneste	
<b>Sustainable Operation of Digital Infrastructure in the Smart City: Practical Experience and Implications.....</b>	<b>557</b>
Jan-Philipp Exner, Patrick Andres	
<b>Sustainable, Smart and Humane Cities: From Utopia to Reality .....</b>	<b>567</b>
Judith Ryser, Teresa Franchini	
<b>Synergizing BIM, Digital Twin, and XR: An Approach for Real-Time Building Analysis and Enhanced Laboratory Management .....</b>	<b>579</b>
Joel Lehmann, Kevin Kastner, Florian Kolb, Tim Häußermann, Alessa Rache, Felix Wühler, Matthias Rädle, Julian Reichwald	
<b>The Built Environment and Universal Design: Are Architectural Competitions a Qualified Instrument to a Better Consideration of the Diversity Dimension Impairment? .....</b>	<b>591</b>
Ulrich Pont, Ines Jürgens, Isabella Kolbitsch, Anastasiia Mahdych, Jana Petrovic, Vanessa Raas, Ksenia Razorenova, Alexander Schweitzer	
<b>The Current Use and Limitations of Water Related Digital Twins – a Practical View on Urban Climate Change Adaptation .....</b>	<b>605</b>
Markus Groth, Steffen Bender, Thea Wübbelmann	
<b>The Human-Based Sustainability: a Responsive Approach towards Cities Redevelopment .....</b>	<b>617</b>
Aya Abdelmeguid, Asmaa Hasan, Mohamed Fikry	
<b>The Implementation of Artificial Intelligence in Project Management .....</b>	<b>627</b>
Aditi Bharati, Christoph Sandbrink	
<b>The Role of Public-Private Partnerships in Smart City Development: A South African Perspective.....</b>	<b>637</b>
China Mashinini, Trynos Gumbo, Jeffrey Mahachi	
<b>The Use of Situated Visualized Data to Nudge Visitor’s Paths: a Case Study at the Detmold Design Week 2023.....</b>	<b>645</b>
Amanda Barbosa Jardim, Maximilian Müh, Mareile Licht, Axel Häusler	
<b>Transformation ehemaliger Arbeiterinnen- und Arbeitersiedlungen in Niederösterreich .....</b>	<b>655</b>
Katharina Kirsch-Soriano da Silva, Lukas Botzenhart	
<b>User Experiences on the Integration of Non-Motorised Transport in Public Transport Systems: a Case of the Harambee Bus Rapid Transit .....</b>	<b>669</b>
Kiara Lawrence, Trynos Gumbo, Godfrey G. Musvoto	
<b>User Preferences for Mobility as a Service (MaaS) Implementation in Germany .....</b>	<b>681</b>
Nara Karunasena, Christoph Sandbrink	
<b>A Comparative Analysis on the Impact of Culture, Norms and Attitudes on the Adoption of Eco-Friendly Transportation in Mannheim and Tokyo.....</b>	<b>695</b>
Ernest Shamorine Boham, Hans Rüdiger Kaufmann	
<b>About the “Soundscape”: Are you a Pro or a Con? .....</b>	<b>703</b>
Olivier Lefebvre	
<b>Ageing Smart – Digital Instruments in a Municipal Context: Data, Analyses and Strategies (not only) for Baby Boomers... ..</b>	<b>709</b>
Annette Spellerberg	

<b>Die Diskrepanz zwischen Anspruch und Wirklichkeit: Wie gestalten wir intelligente Städte und Regionen der Zukunft kompetenzorientiert durch vernetztes Arbeiten?</b> .....	715
Christian Schachtner, Marvin Baldauf	
<b>Exploring Consumer Adoption of Electric Vehicles in Japan: an Empirical Study</b> .....	723
Mitsunori Hirogaki	
<b>Fourth Nature: Regenerating Cosmicity</b> .....	727
Simone Back Prochnow	
<b>How do They Ride? Analysis of Cycling Biomechanics (“MODELO-Rad” Project)</b> .....	733
Jochen Eckart, Martin Bejarano	
<b>Human Behaviour in Africa: a Real Challenge Factor towards Building Smart Cities</b> .....	743
Abderrahim Boualy	
<b>Nature-based Solutions als Aspekt bei der Entwicklung innerstädtischer, hochfrequentierter Parkanlagen am Beispiel Rennbahnpark Frankfurt und Neckarvorland Mannheim</b> .....	747
Christian Wild	
<b>ODD – Operational Design Domain as Test Arrangement for the Future Automatisisation of Road Traffic</b> .....	753
Heinz Dörr	
<b>Regionalisierung von Wohnungsmärkten anhand kleinräumiger Umzugsbewegungen in Deutschland</b> .....	761
Lukas Tiemann, Robert Sabelfeld	
<b>Smart Urban Resilience: From Nature-Based Solutions (NBS) to Nature-Positive Cities and Landscapes</b> .....	769
Andreas Otto Kipar	
<b>Sustainable Concrete-Based Structures: Review for the Potential Benefits of Basalt Fiber Reinforced Concrete (BFRC) in Enhancing the Environmental Performance of Buildings</b> .....	775
Nadine Albqour, Mohammad Shehata, Zeyad Elsayad, Shaher Rababeh	
<b>Vereinbarkeit von ganzheitlich gedachter Ökologie und Ökonomie in einem Gewerbequartier</b> .....	787
Arndt Brauckmann	
<b>Wie bindet man seine Mitarbeitenden? Fördern die Arbeitgeberattraktivität und die betriebliche Gesundheitsförderung die Bleibemotivation der Mitarbeitenden? Eine quantitative Fragebogenstudie</b> .....	793
Daniel Zimmer, Shannon Ritz, Lukas Römer, Andreas Zimmer	
<b>Passive Cooling Technologies for Reducing the Heating of Containers</b> .....	805
Tanja Vetter, Norbert Schneider, Heinrich Dinnebier	