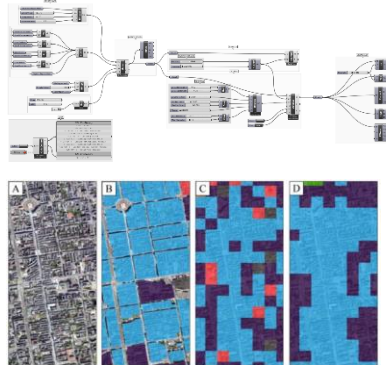
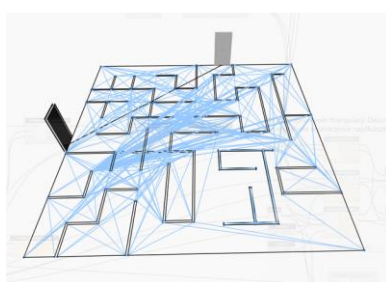




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<p>name of the unit:</p> <p>DEPARTMENT OF DIGITAL TECHNOLOGIES IN ARCHITECTURE AND URBAN PLANNING</p> <p>Lodz University of Technology</p>		<p>symbol:</p> <p>I-61</p> <p>http://www.bais.p.lodz.pl/index.php/I35</p>
<p>head of the unit:</p> <p>Anetta Kępczyńska-Walczak, PhD, DSc, TUL Prof.</p>	<p>potential promoters:</p> <p>Anetta Kępczyńska-Walczak, PhD, DSc, TUL Prof.</p>	<p>contact person:</p> <p>Anetta Kępczyńska-Walczak, PhD, DSc, TUL Prof.</p> <p>phone: 48426313533 anetta.kepczynska-walczak@p.lodz.pl</p>
<p>scope of activities:</p> <p>The Department's activities focus on a wide range of digital technologies and applications in architecture and urban planning. Due to dynamic pace of change in development of the ICT in many domains, research topics may evolve and are open to new ideas. Therefore, the scope presented here is not the closed list.</p> <p>Here are general themes running in the Department: BIM, VR, digital technologies in cultural heritage, use of spatial data and geoinformation in GIS (Geographical Information Systems), creating maps, visualization of spatial data, multi-criteria analyses, application of geostatistical methods and geoprocessing in the morphological approach to spatial structures, observation and description of the impact of IT technologies on the methodology of architectural design and spatial development.</p>		<p>graphic material:</p>  
<p>present activities:</p> <p>Building Information Modelling in research, education and practice; Data-based support for location decision-making processes in spatial planning; IT-driven cultural change in the built environment development methods – process-oriented approach, iterative methods, prototyping, parametric modelling; Visualizations and narratives in built environment; Smart cities; Nature-Based Solutions for the mitigation of climate change; facilities management.</p> <p>The activities are conducted by the following researchers in the Department: Anetta Kępczyńska-Walczak, PhD, DSc, TUL Prof., Wiktor Wróblewski, PhD, Tomasz Kroc, MSc, Michał Jarzyna, MSc, Patrycja Stasiak, MSc, Adrian Chmielewski, MSc.</p>		
<p>future activities:</p> <p>Development of current research activities in response to technological changes</p>		



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[Publications/patents, awards, projects:](#)

M. Jarzyna, A. Kępczyńska-Walczak, Application of the matrix method in determining the shortest route in BIM, "Architecture Civil Engineering Environment", Vol.14 No2/2021, s.5-24.

Wróblewski, Wiktor and Kroc, Tomasz, "Współczesne podejście do terenów zieleni w mieście a ich utrzymanie i rozwój w Łodzi". *Builder 1* (2021) 9-11 DOI: 10.5604/01.3001.0015.5802.

A. Kępczyńska-Walczak, Building Information Modelling Implementation in Progress [w:] JP Sousa i in. (red.), Architecture in the Age of the 4th Industrial Revolution, vol. 2, University of Porto, Porto, Portugal, s. 279-286.

Kępczyńska-Walczak, S. Białkowski (red.), *Computing for a better tomorrow*, Vol. 1, Politechnika Łódzka, Łódź 2018.

A. Kępczyńska-Walczak, S. Białkowski (red.), *Computing for a better tomorrow*, Vol. 2, Politechnika Łódzka, Łódź 2018.

A. Kępczyńska-Walczak, Computation As Design Logic Indicator - The Expo Project Experiment [w:] A. Fioravanti i in. (red.), ShoCK! - Sharing Computational Knowledge! vol. 1, Sapienza University of Rome, Rzym 2017, s. 279-288.

Wróblewski, Wiktor, "Wykorzystanie narzędzi Nowego Urbanizmu w procesie powrotu Łodzi do centrum". *Studia Komitetu Przestrzennego Zagospodarowania Kraju PAN CLXVIII* (2016) 136-157.

[keywords:](#)

BIM, cultural heritage, visualizations, narratives, smart cities, NBS, GIS, spatial data, spatial analyses, iterative methods, prototyping, parametric modelling, FM

[List of internship proposal in this research team:](#)

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