

Applied Research & Development

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Papers and publications produced in collaboration with the Applied Research & Development team.

Conference papers

1. [Abdel-Rahman, A., Kosicki, M., Michalatos, P., Tsigkari, M. \(2019\). Design of thermally deformable laminates using machine learning.](#)
2. [Kosicki, M., Tsiliakos, M., Tsigkari, M. \(2019\). HYDRA: Distributed Multi-Objective Optimization for Designers.](#)
3. [Psarras, S., Elashry, K., Kosicki, M., Tsigkari, M., Davis, A., Aish, F. \(2019\). SandBOX: An intuitive conceptual design system.](#)
4. [Aish, F., Ander, M., Hryhab, E., Olsson, J., Tsigkari, M., Williams, C. \(2018\). Form finding nodal connections in grid structure.](#)
5. [Papalexopoulos, V., Kosicki, M., Davis, A., Tsigkari, M. \(2017\). Spatial Solutions and Solution Spaces: The use of Virtual and Augmented Reality in Design Exploration.](#)
6. [Tsigkari, M., Olsson, J., Malm, H., Psarras, S., Aish, F. \(2017\). The computational challenges of a mega space frame.](#)
7. [Malm, H., Joyce, S., Tsigkari, M., Elashry, K., Aish, F. \(2015\). Designing the Desert: Modelling the Walls of the UAE Pavilion for the 2015 World Expo.](#)
8. [Tsigkari, M., Chronis, A., Joyce, S.C., Davis, A., Feng, S., Aish, F. \(2013\). Integrated Design in the Simulation Process.](#)
9. [Chronis, A., Tsigkari, M., Davis, A., Aish, F. \(2012\). Design systems, ecology, and time.](#)
10. [Chronis, A., Tsigkari, M., Giouvanos, E., Aish, F., Zaki, A.A. \(2012\). Performance Driven Design and Simulation Interfaces: A Multi-Objective Parametric Optimization Process.](#)
11. [Davis, A., Tsigkari, M., Iseki, T., Aish, F. \(2011\). Just passing through: Integration in computational environmental design.](#)
12. [Aish, F., Davis, A., O'Malley, M., & Papalexopoulos, V. \(2016\). Designing the Infrastructure of Human Building Interaction. Presented at the 2016 SigCHI workshop on Human Building Interaction. San Jose, CA, USA: May 2016.](#)
13. [Davis, A., Hanna, S., & Aish, F. \(2015\). Characterising Place by Scene Depth. Proceedings of the 10th International Space Syntax Symposium. London, UK: July 2015.](#)

Journal articles

14. [Tarabishy, S., Psarras, S., Kosicki, M., Tsigkari, M. \(2020\). Deep learning surrogate models for spatial and visual connectivity. International Journal of Architectural Computing, doi:10.1177/1478077119894483](#)
15. [Aish, F., Davis, A., Tsigkari, M. \(2013\). Ex silico ad vivo: Computational simulation and urban design at foster + partners. Architectural Design, 83 \(4\), 106-111. doi:10.1002/ad.1626](#)
16. [Tsigkari, M., Davis, A., Aish, F. \(2011\). A sense of purpose mathematics and performance in environmental design. Architectural Design, 81 \(4\), 54-57. doi:10.1002/ad.1268](#)

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