NVIDIA selects Assistant Professor Daniel Bolojan’s project “Latent Morphologies” for the Academic Hardware Grant Program. Daniel Bolojan is an Assistant Professor at the School of Architecture FAU, where he specializes in artificial intelligence (AI) and computational design. He is one of the leading voices in the implementation of deep learning strategies in architecture and the architectural design process. The selected project “Latent Morphologies” introduces first-generation architecture students to the potential disruptive paradigm change driven by the adoption of Creative AI models in architecture, as well as how these can manifest in novel machine-machine or human-machine interaction protocols.

Bolojan’s project “Latent Morphologies” investigates the potential of logical continuity in AI-driven design workflows.

Image caption: The developed deep learning networks allow for blending of semantic representations to be performed between architectural and non-architectural domains, resulting in coherent domain transfers that provide novel architectural expressions.
Rather than viewing artificial intelligence as a closed cycle of “input-output,” the project investigates the potential of logical continuity in AI-driven design workflows that both challenge and augment designer’s agency, by looking at a series of complementary deep learning models and developing nested generative design processes.

NVIDIA is the leading manufacturer of high-end graphics processing units (GPUs), which are powering the Deep Learning revolution. The NVIDIA Academic Hardware Program advances artificial intelligence and data science by providing researchers and educators with industry-leading hardware and software through partnership with academic institutions worldwide. The program aims to advance education and research by: (1) Providing world-class computing resources to enable groundbreaking, innovative, and one-of-a-kind academic research projects. (2) Providing educators with a hands-on platform for teaching students of any discipline about artificial intelligence, deep learning, and data science. Applicants had required to “demonstrate a thorough understanding of how to leverage NVIDIA technology to accelerate research and significantly impact a project’s success.”