Description of the Lab's Role and Activities

The Lab functions as a dynamic, interdisciplinary Living Lab dedicated to advancing sustainability within architectural and urban education. It merges technical, social, and ecological dimensions to empower students and faculty with the competencies required to address complex urban and environmental challenges. Operating as a real-world innovation ecosystem, the Living Lab enables experimentation, co-creation, and iterative learning through active engagement with diverse stakeholders including academia, industry, and local communities. Equipped with cutting-edge digital technologies, the lab facilitates project-based learning, immersive teaching modules, and community-embedded research. It also acts as a platform for curriculum innovation that aligns with SDGs and evolving pedagogical standards. By blending hands-on experiences with interdisciplinary collaboration, the lab fosters critical thinking, civic responsibility, and green transition strategies.

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PRO GREEN LABS

The German Jordanian University

SUSTAINABLE URBANISM LAB

GJU
الجامعة الألمانية الأردنية
German Jordanian University

Project Partners

Bauhaus-Universität Weimar
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ALEXANDRIA UNIVERSITY FACULTY OF FINE ARTS
CAIRO UNIVERSITY
University of Petra
GJU الجامعة الألمانية الأردنية German Jordanian University

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Thematic Focus

The lab addresses sustainability through experiential, lab-based, and active learning approaches. Its key research and teaching themes include:
- Urban digitalization and green technologies
- Addressing Local challenges by hands-on experiences
- Smart energy use and environmental monitoring
- 3D visualization and fabrication for sustainable urban development
- Implementation of SDGs and green competencies in academic curricula.

Mission and Vision

Mission:
To advance built environment education through a Living Lab framework that bridges academia, industry, and community. The lab serves as an experimental and collaborative platform that integrates real-world challenges, promotes an innovation hub, facilitates advanced applications, and fosters a participatory approach. By embedding sustainable development principles and experiential, practice-based learning, the lab empowers students, faculty, and stakeholders to co-create transformative solutions for complex environmental and urban issues.

Vision:
To be a pioneering hub at the German Jordanian University (GJU) that fosters excellence in sustainable urbanism through interdisciplinary education, applied research, and community collaboration. The lab envisions integrating advanced technologies, experiential learning, and green competencies to shape future architects and urbanists capable of addressing local and global challenges. By aligning with GJU's mission of linking theory with practice and fostering innovation, the lab aspires to serve as a model for sustainable development in the region, empowering students, faculty, and society to co-create resilient, inclusive, and environmentally responsible urban futures.

Lab Equipment

- Interactive Flat Panel
- Audio Video Devices
- Video Conference Camera
- Creality K3 1D Printer
- 3D Printer (Larger)
- 3D Printer (Smaller)
- Resin 3D Printer
- Mercury Plus V3.0 Wash & Cure Plus
- Machine
- 3D Scanner
- Hot Wire Cutter
- Acrylic PVC Hot Bending Machine
- Hologram Display
- Meta Quest Pro
- Energy Logger
- Power Quality Analyzer
- Thermal Imager
- Air Quality Tools
- Flow Meter
- Infrared Thermometer
- Power Meter
- Airflow Measurement
- Devices
- Vinyl Cutters
- CNC Cutters
- Cardboard Perforator

Lab Photos