

# FUTURE LIVING ENVIRONMENTS AND URBAN EXPERIMENTS LABORATORY

## Contact details

Name	Future Living environments and Urban eXperiments Laboratory	
Acronym	<b>FLUX Lab</b>	
Logo		
Site	<a href="https://research.utcluj.ro/index.php/architecture.html">https://research.utcluj.ro/index.php/architecture.html</a>	
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## Areas of expertise

### Research and study in the field of:

- Future technologies connected with architecture, urban planning and landscape design
- Interdisciplinarity and Transdisciplinary relations between built environment, culture and technology
- Ethics, Aesthetics of care, Ecology and Sustainability in relation with the built environment and the impact of new technologies
- Educational methodologies related to future technologies used in architectural, urban and landscape design.

## Team

### Assoc. Prof. Ph.D. Arch. Silivan V. MOLDOVAN – director

Assoc. Prof. Ph.D. Arch. Ioana M. MOLDOVAN  
 Prof. Ph.D. Ing. Cristina CÂMPIAN  
 Assoc. Prof. Ph.D. Arch. Andreea MILEA  
 Ph.D. Student Arch. Ioana CECĂLĂȘAN

**External Collaborators:** Ph.D. Student Arch. Alexandra ZAHARIA, Ph.D. Student Arch. Oana MATEI,  
 Assoc. Prof. Ph.D. Arch. Dana JULEAN, Prof. Ph.D. Ing. Ligia MOGA

## Representative projects

- **EpisTeaM - Epistemology in Science, Technology, Engineering, Arts and Maths** - MSCA SE Marie Skłodowska-Curie Staff Exchanges 2022, HORIZON-MSCA-2022-SE-01, HORIZON-TMA-MSCA-SE,
- **EpisTeam – Epistemologie in stiinta, tehnica, inginerie, arte si matematica** – proiect de premiere PN-PRE-HE-ORG-2024-2028
- **EpiCo - Epistemology and Ecology in Technological Education**, Erasmus+ KA220-HED, 2023
- **AesThiCo: Aesthetics and Ecology in Technological Education**, Erasmus+ and European Solidary Corps/ Cooperation partnerships in higher education KA220-HED, 2021
- **EthiCo: Ethics and Ecology in Technological Education**, Erasmus+ and European Strategic partnership for higher education KA203, 2020

## Significant results

### Books:

- Moldovan MS, Moldovan IM, Moldovan SV – Clădiri înalte. Evoluție. Implementare., UTPRESS, Cluj-Napoca, 2012
- Handbook: Aesthetics and Ecology in Technological Education, 2025, ISBN: 978-619-93217-0-6 105p
- Preface. Introduction: Transdisciplinary perspectives on AI, în Transdisciplinary perspectives on AI. The fourth conference of the European Culture and Technology Laboratory. Editura TU Dublin. 20205, ISBN: 978-1-90-045493-3. p. 197-214

### Articles in ISI rated journals:

- Moldovan IM, Moldovan SV, Ilieș NM - *Invisible architecture – Sustainable underground architecture*, International Multidisciplinary Scientific GeoConference- SGEM, Nano, Bio and Green - Technologies for a Sustainable Future Conference Proceedings, SGEM 2016, VOL III, 2016, p.555-560, ISSN: 1314-2704
- Moldovan IM, Moldovan SV, Ilieș NM - *Suburbia – From transition architecture to contemporary residential developments in Romania*, International Multidisciplinary Scientific GeoConference-SGEM, Nano, Bio and Green - Technologies for a Sustainable Future Conference Proceedings, SGEM 2016, VOL III, 2016, p.639-646, ISSN: 1314-2704
- Moldovan IM, Moldovan SV, Ilieș NM - *Rural Romanian housing degradation – effect of land restitution and unemployment rates*, Agriculture and Agricultural Science Procedia - 5th International Conference - Agriculture for Life, Life for Agriculture, 2016, p.438-443, ISSN: 2210-7843
- Moldovan IM, Ilieș NM, Moldovan SV - *The reinvention of the traditional home “bordei” and its impact on the rural landscape and environment*, Agriculture and Agricultural Science Procedia - Conference Agriculture for Life, Life for Agriculture, 2015, p.479-485, ISSN: 2210-7843
- Moldovan IM, Moldovan SV, Ilieș NM - *Towards sustainable architecture: Underground and semi-buried houses versus conventional houses*, International Multidisciplinary Scientific GeoConference-SGEM - Nano, Bio and Green - Technologies for a Sustainable Future, Vol II (SGEM 2015), p.607-613, ISSN: 1314-2704
- Moldovan IM, Moldovan SV, Ilieș NM – *Earth-sheltered and underground homes as alternatives for the unfortunate post-communist residential developments*, International Multidisciplinary Scientific GeoConference-SGEM - Nano, Bio and Green - Technologies for a Sustainable Future, Vol II (SGEM 2015), p.421-428, ISSN: 1314-2704
- Ilieș NM, Moldovan IM, Moldovan SV - *Improving the stability of slopes with the aid of underground houses*. Procedia Technology - 8th International Conference Interdisciplinarity in Engineering, INTER-ENG 2014. p.363-370, ISSN: 2212-0173
- Moldovan IM, Moldovan SV, *Structural systems influence the aesthetics of skyscrapers*, Journal of Applied Engineering Sciences, University of Oradea Publishing House, Volume 1 (14), Issue 4/2011 Oradea, ROMANIA, p.117-122, ISSN 2247 – 3769
- Moldovan S.V., Moldovan I.M., Rice T, - *Speculative Memory and Machine Augmentation: A Polyvocal Rendering of Brutalist Architecture through AI and Photogrammetry* - Heritage 2025, 8(10), 401
- Moldovan I.M., Vaughan C., O'Hara M.,Moldovan S.V., Cecalasan I. - *Imperfections and Scars. The Aesthetics of Curated Decay in Urban Conservation*. Heritage, 2026

### Presentations:

- Exploring the Aesthetics of Care in Contemporary Architectural Design. Mid-term international seminar Exploring the Aesthetics of Care, AesThiCo, 09.02.2024.
- Aesthetics of Care. Controversies in text-to-image models. - "Human - a measure of all things? The challenge of the post-industrial information society" Technical University of Sofia, Department of Law and Humanities at the Faculty of Management 17–18.10.2023, Sofia, Bulgaria.
- Digital Tools interfering with the Design of the Built Environment - 18th DRC (Danube Rectors' Conference) Summer School on Regional Cooperation "Transformation of post-war Europe: Challenging universities and research in the Danube Region" 16–22.07.2023, Cluj-Napoca, Romania.
- 'Care' understood by AI. Biases and controversies - 18th DRC (Danube Rectors' Conference) Summer School on Regional Cooperation "Transformation of post-war Europe: Challenging universities and research in the Danube Region" 16–22.07.2023, Cluj-Napoca, Romania.
- Perception of Aesthetics of Care. Text-to-image AI generation. The 2nd European Culture and Technology Lab+ Annual Conference. Techne logos, Care and the (Neg) Anthropocene. 18 - 20 January 2023, Dublin, Ireland. Rosia Montana. The journey of 'care' of an endangered site. The 2nd European Culture and Technology Lab+ Annual Conference. Techne logos, Care and the (Neg) Anthropocene. 18 - 20 January 2023, Dublin, Ireland.
- Prompts and Prayers: the rise of GPTheology, 4th Annual Conference ECT Lab+/Eut+ - Transdisciplinary perspectives on AI: Alternative Histories, Current Practices and Possible Futures, Cluj Innovation Park, 18-19.10.2024, UTCN
- Imperfections. A Case Study of Genoa, Italy. MAD Lab, Limassol, Cyprus. Coauthors: MOLDOVAN IM, VAUGHAN C, O'HARA M, MOLDOVAN SV, CECALASAN IR
- Imperfections. A Case Study of Genoa, Italy. UT Hub, Cluj-Napoca, Romania Coauthors: MOLDOVAN IM, VAUGHAN C, O'HARA M, MOLDOVAN SV, CECALASAN IR
- Scars. A Case Study of Nicosia, Cyprus. UT Hub, Cluj-Napoca, Romania. Coauthors: MOLDOVAN IM, VAUGHAN C, O'HARA M, MOLDOVAN SV, CECALASAN IR
- Curated Decay in Architecture and Public Art. EpisTEAM Summer School: Rhetorical Machines + the Hyperlocal. 22.06-06.07.2025, Seattle, SUA.
- The Digital Afterlife of Architecture. Case study of McMahan Hall Riga Technical University 66th International Scientific Conference, 16-17.10.2025
- A Recipe for Architecture at the Edge of the Digital Turn, 5th Annual Conference ECT Lab+: Alchemy Today! Critical

Perspectives on Digital Hermeneutics, Batlan Laboratories, 20-21.11.2025, Eindhoven, Olanda.

**Significant results:**

- Intensive Study Program – “Ethics and ecology in technological education.” Student training Module / EthiCo project Febr. 2021 Universidad Politecnica de Cartagena, Spain – hybrid version
- Intensive Study Program – “Ethics and ecology in technological education.” Teacher training Module / EthiCo project March. 2022 Technical University of Cluj Napoca, Romania
- Intensive Study Program – “Aesthetics (of care) and ecology in technological education.” Teacher training Module / Aesthico project May. 2023 Universidad Politecnica de Cartagena, Spain
- Intensive Study Program – “Ethics and ecology in technological education.” Student training Module / EthiCo project July. 2023 Technical University of Troyes, France
- Multiplier event Conference and workshop – Ethico project - Ethics and ecology in technological education, August 2023, Technical University of Sofia, Sofia, Bulgaria
- Intensive Study Program – “Aesthetics (of care) and ecology in technological education.” Student training Module / Aesthico project April. 2024 Cyprus Technical University, Limassol
- Organizer of ECT Lab 4th Conference 2024 – Transdisciplinary perspectives on AI: Alternative Histories, Current Practices and Possible Futures. 18-19 October 2024, Cluj Napoca, CREIC
- Organizer of Aesthico Multiplier event 10-16 November 2024 – Exhibition MAD Lab, Limassol, Cyprus
- Organizer of Multiplier event Conference and workshop – Aesthico project – Aesthetics of Care and ecology in technological education, 15-17 January 2025, Technical University of Cluj – Napoca
- Intensive Study Program – “Epistemology and ecology in technological education.” Teacher training Module / EpiCo project 12.05-14.05.2025 Universidad Politecnica de Cartagena, Spain
- EpisTEAM Summer School: Rhetorical Machines + the Hyperlocal. 22.06-06.07.2025, Seattle, SUA.

**The offer addressed to the economic environment**

Research & development	Intersections and interactions between architecture, urbanism, landscape design, art, culture, engineering and technology. Flux Lab can explore the impact of technology, automation and technological advancement on the society and analyse future possibilities of evolution. Exploration and understanding of the perceived reality through digital tools are another field of interest for the members of the lab.
Consulting	Flux lab can provide consultancy and support regarding an ethical and ecological approach in technology development or usage connected to the fields of architecture, urbanism and landscape design. New approaches and methods in educational process are a topic that can be also explored within the lab.
Training	The research structure has experience and skills to organise transdisciplinary workshops, Intensive study programs (ISP), Blended intensive programs (BIP), summer / winter schools, specialised lectures.

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