

ACADEMIC CV

Dr. Özgür Kavurmacıoğlu

Assistant Professor · Gebze Technical University, Faculty of Architecture · Co-founder, Responsive Ground Research Lab · Founder, kik.works

ozgurkavurmacioglu@gtu.edu.tr · ORCID 0000-0002-1044-1649 · Google Scholar · ResearchGate · Academia · DergiPark · ozgurkavurmaci.com

Özgür Kavurmacıoğlu is a researcher architect and artist working at the intersection of computation, material behaviour and living systems. His doctoral research at Beykent University (2023) developed a process-oriented, open-ended design model built on real-time motion data of a sphere moving under gravity and wind, reading time and movement through mathematical curves. He is a co-founder of Responsive Ground Research Lab, where his collaborative work on bio-tectonics and transcalar design has been presented at ICSA, CA²RE, IAAC and the Antalya Architecture Biennial. He has taught design studios and courses at Gebze Technical, Işık, Istanbul Bilgi, Topkapı and Nişantaşı universities, and currently teaches Contemporary Poetics in Architecture to graduate students at Gebze Technical University. He is the founder of kik.works, an experimental design studio where he tests these ideas through physical prototyping, upcycling and hybrid fabrication. kik.works, formerly (0,0,0)lab, frames the upcycling of industrial waste, generative crafting and hybrid fabrication as a feedback loop between digital input and analogue material behaviour.

EDUCATION

2014–2023	**PhD, architecture** · Istanbul Beykent University, Graduate Education Institute Thesis: *Motion and Time Based Algorithmic Modelling in Architectural Design: Mathematical Curves in the Effect of Natural Phenomena* · Supervisor: Prof. Dr. Sercan Özgencil Yıldırım, Prof. Dr. Levent Arıdağ (co-supervisor)
2011–2013	**MSc, architecture** · Istanbul Beykent University, Graduate School of Science and Engineering Thesis: *A Research on the New Mathematical Models in Structural Design* · Supervisor: Assoc. Prof. Dr. Levent Arıdağ
2005–2009	**BSc, civil engineering** · Celal Bayar University

ACADEMIC APPOINTMENTS

2026–	**Assistant Professor** · Gebze Technical University, Architecture (graduate programmes) Contemporary Poetics in Architecture (MSc and PhD)
2022–	**co-founder, researcher (experimental design)** · Responsive Ground Research Lab (RGRL) Turkish name: Duyarlı Zemin Araştırma Grubu
2023–2024	**Assistant Professor** · Istanbul Topkapı University, Interior Architecture
2023–2024	**lecturer (contract)** · Istanbul Bilgi University, Interior Architecture
2022–2024	**lecturer (contract)** · Işık University, Core Programme
2021–2023	**lecturer (contract)** · Gebze Technical University, Architecture
2019	**lecturer (contract)** · Istanbul Nişantaşı University, Interior Architecture
2019	**lecturer (contract)** · Işık University, Architecture
2015–2018	**research assistant** · Işık University, Architecture

RESEARCH GROUPS AND ORGANISATIONS

	kik.works · founder An experimental design laboratory where transcalar bio-tectonic concepts are tested through physical prototyping, upcycling and hybrid fabrication.
2023–	**Zero Movement** · founder, principal researcher · Bozcaada
2021–	**TheUrbanArts** · co-founder, artist

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

1. Kavurmacıoğlu, Ö., & Arıdağ, L. (2016). Strüktürel Membran Tasarımında Geometri-Optimizasyon İlişkisi [The Relationship Between Geometry and Optimization in Structural Membrane Design]. *Uluslararası Hakemli Tasarım ve Mimarlık Dergisi*, 1(7), 85–96. https://doi.org/10.17365/TMD.2016716518
2. Kavurmacıoğlu, Ö., & Arıdağ, L. (2013). Strüktür Tasarımında Geometri ve Matematiksel Model İlişkisi [The Relationship Between Geometry and Mathematical Model at Structural Design]. *Beykent Üniversitesi Fen ve Mühendislik Bilimleri Dergisi*, 6(2), 59–76. https://doi.org/10.5281/zenodo.23919994

BOOK CHAPTERS

1. Kavurmacıoğlu, Ö., Ozar, B., Cimşit Koş, F., & Delerel, Z. (2025). Parametric Material Autopsies for Generative Crafting. In *Structures and Architecture: REstructure, REmaterialize, REthink, REuse* (pp. 497–504). CRC Press / Taylor & Francis. https://doi.org/10.1201/9781003658641-60
2. Cimşit Koş, F., Delerel, Z., Ozar, B., & Kavurmacıoğlu, Ö. (2025). Transcalar Bio-Tectonics: Unveiling Responsive Potential in Architecture. In *Structures and Architecture: REstructure, REmaterialize, REthink, REuse* (pp. 989–996). CRC Press / Taylor & Francis. https://doi.org/10.1201/9781003658641-118

CONFERENCE PAPERS AND POSTERS

1. Cimşit Koş, F., Aşkın Kütükçü, S., Bilgiç, Z., Ozar, B., & Kavurmacıoğlu, Ö. (2026). Adaptive Architectonics for Human and Non-Human Coexistence: Toward Water-Based Biodiversity Oriented Spatial Practices [Conference paper]. *MedEA (Mediterranean Ecological Adaptation) Final Conference*.
2. Kahraman, A., Cimşit Koş, F., Delerel, Z., Kavurmacıoğlu, Ö., Ozar, B., & Çiftci, Y. (2025). Decoding Ivy-Induced Feedback Loops: Modeling Cumulative Biological Impacts and Morphological Adaptation [Conference paper]. *Cultivating Matter. Is the future alive? — 6th International Circular Strategies Symposium*. https://www.dieangewandte.at/termine/circular_strategies_symposium_6_cultivating_matter_is_the_future_alive_20-11-2025
3. Cimşit Koş, F., Aşkın Kütükçü, S., Delerel, Z., Ozar, B., & Kavurmacıoğlu, Ö. (2025). "WATER-GROUND": An Alchemy for Reviving Urban Biodiversity Through Water-Driven Tectonics [Conference paper]. *BIODLF-25: Bio-design for Living Futures Symposium*.
4. Sanlı, A., Cimşit Koş, F., Delerel, Z., Ozar, B., Kavurmacıoğlu, Ö., & Aşkın Kütükçü, S. (2025). Bio-Tectonic Morphogenesis Across Terrestrial Topologies: Temporal Patterns in Living–Surface Interactions [Conference paper]. *BIODLF-25: Bio-design for Living Futures Symposium*.
5. Cimşit Koş, F., Ozar, B., Kavurmacıoğlu, Ö., & Aşkın Kütükçü, S. (2025). Transcalar Materials as Narrative Agents: Challenging Traditional Metrics of Originality [Conference paper]. *CA²RE Milano 2025 "AUTHORSHIPS" Proceedings*, 272–277. https://milano.ca2re.eu/proceedings
6. Ayata, L., & Kavurmacıoğlu, Ö. (2023). Sanatta Bir Üretim Metodu Olarak Tüketmeden Üretmek [Producing Without Consuming as a Production Method in Art] [Conference paper]. *5. Uluslararası Sanat ve Tasarım Eğitimi Sempozyumu: Sanat ve Tasarımda Sürdürülebilirlik*.
7. Kavurmacıoğlu, Ö., & Arıdağ, L. (2015). The Relationship Between Geometry and Optimization Methods at Structural Design [Conference paper]. *Proceedings of IASS Annual Symposia — IASS 2015 Amsterdam Symposium: Future Visions*, 1–16. https://www.ingentaconnect.com/content/iass/piass/2015/00002015/00000017/art00016

PREPRINTS

1. Kahraman, A., Cimşit Koş, F., Delerel, Z., Kavurmacıoğlu, Ö., & Ozar, B. (2025). Decoding Ivy Behavior for a Performative Flow Model [Preprint]. *Research Directions: Biotechnology Design*. https://doi.org/10.33774/coe-2025-mjj4p

THESES

1. Kavurmacıoğlu, Ö. (2023). *Mimari Tasarımda Hareket ve Zamana Bağlı Algoritmik Modelleme: Tabiat Fenomenleri Etkisinde Matematiksel Eğriler [Motion and Time Based Algorithmic Modelling in Architectural Design: Mathematical Curves in the Effect of Natural Phenomena]* [Doctoral dissertation, Istanbul Beykent University, Graduate Education Institute]. https://doi.org/10.5281/zenodo.18225776
2. Kavurmacıoğlu, Ö. (2013). *Strüktür Tasarımında Yenilikçi Matematiksel Modeller Üzerine Bir İnceleme [A Research on the New Mathematical Models in Structural Design]* [Master's thesis, Istanbul Beykent University, Graduate School of Science and Engineering]. https://doi.org/10.5281/zenodo.18225871

TEACHING

GEBZE TECHNICAL UNIVERSITY

2026–27 autumn	Contemporary Poetics in Architecture instructor · MSc and PhD
2025–26	Prototyping studio (Responsive Ground Research Lab) invited critic
2024–25 autumn and spring	Water-Ground — first-year architectural design studio external contribution (RGRL)
2024–25 autumn	Topology studio (Responsive Ground Research Lab) invited critic
2023–26	Transcalar Studio (Responsive Ground Research Lab) invited critic
2022–23 spring	Architectural Design II — “quidamotion” (MİM 122) studio instructor
2022–23 autumn	Architectural Design I — “F111” (MİM 121) co-instructor (with Fitnat Cimşit Koş, Sanem Masatlıoğlu, Büşra Ağaç)
2022–23 autumn	Basic Design — “F111” (MİM 123) co-instructor (with Fitnat Cimşit Koş, Sanem Masatlıoğlu, Büşra Ağaç)
2021–22 spring	Architectural Design II — “Floating Earth · a documentary hub” (MİM 122) co-instructor (with Fitnat Cimşit Koş)
2021–22 autumn	Architectural Design I — “Studio UN-BOX” (MİM 121) co-instructor (with Fitnat Cimşit Koş)
2021–22 autumn	Basic Design — “Studio UN-BOX” (MİM 123) co-instructor (with Fitnat Cimşit Koş)

ISTANBUL BILGI UNIVERSITY

2023–24 spring	Basic Design II — “Weaves, Knits & Nets” (IND102) studio instructor (team-taught)
2023–24 spring	Design Computing (IND114) lecturer
2023–24 autumn	Basic Design I — “TRANS-” (IND101) studio instructor (team-taught)
2023–24 autumn	Design Geometry (IND113) lecturer

ISTANBUL TOPKAPI UNIVERSITY

2023–24 spring	Interior Architecture Project II — retail store (IAD214) studio instructor
2023–24 spring	Computer-Aided Architectural Modelling (IAD316) lecturer
2023–24 autumn	Interior Design Studio III — restaurant–café (IAD315) studio instructor
2023–24 autumn	Sustainable Design (IAD311) lecturer
2023–24 autumn	Sustainability in Architecture (ARC309) lecturer
2022–23 spring	Interior Design Studio II — Tiny House (container home) (IAD102) studio instructor
2022–23 spring	Interior Design Studio IV — retail store (IAD202) studio instructor

2022–23 spring	Interior Design Studio VI — next-generation office (IAD302) studio instructor

IŞIK UNIVERSITY

2023–24 autumn	Creative Thinking and Problem Solving (online) (ORDE0107 / CORE0107) lecturer
2022–23 autumn	Creative Thinking and Problem Solving (online) (ORDE0107 / CORE0107) lecturer
2018–19 spring	Structural Systems (ARCH206) lecturer
2018–19 spring	Steel Structures (ARC411) instructor
2018–19 spring	Reinforced Concrete lecturer
2017–18	Structural Systems (ARCH206) teaching assistant
2017–18	Basic Design in Architecture teaching assistant
2017–18	Design studios teaching assistant
2016–17	Structural Systems (ARCH206) teaching assistant
2016–17	Design studios teaching assistant
2016–17 autumn	Structural Analysis teaching assistant
2015–16 spring	Design studios teaching assistant
2015–16 autumn	Statics and Strength of Materials (ARCH112) assistant instructor

ISTANBUL NIŞANTAŞI UNIVERSITY

2018–19 spring	Design Studio II (interior architecture) co-instructor

WORKSHOPS LED

June 2026	**Bio-Tectonic Anomalies: Challenging Traditional Metrics of Originality — UIC Barcelona, Master in Biodigital Architecture** · UIC Barcelona, Barcelona tutor, parametric design and computational methods (with the RGRL team); online
March 2025	**MetaMatter — ReCoding Waste into Structure** · Gebze Technical University Faculty of Architecture lead (RGRL team)
March 2024	**Creative Industries in Design — İPA City School: Design** · İPA Campus, Istanbul studio instructor (Responsive Ground Research Lab)
October 2022	**Surface Animation Movement with Everyday Objects** · İPA Campus Hangar, Florya instructor
January 2022	**Moss/Algae Studies — Team Deeply High** · (0,0,0)lab, Istanbul lead (pavilion design)
August 2021	**Solar Decathlon Bozcaada Camp — A Matter of Bonds** · Bozcaada, campsite with caravans and tents instructor
2018	**Concrete-Form** · İstiklal Avenue, Istanbul independent workshop, lead
August 2016	**Suspended Cocoon** · Turgut Village, Seferihisar, İzmir independent workshop, lead

2016 **Catenary Curve and Structure**
in-course workshop, lead

2016 **Design from Nature** · Işık University Şile Campus
in-course workshop, lead

2015 **Tensegrity Models**
in-course workshop, lead

SCIENTIFIC AND ARTISTIC EVENTS

PAPERS AND PRESENTATIONS

May 2026 **MedEA (Mediterranean Ecological Adaptation) Final Conference** · Rome
joint presentation (RGRL), online: Adaptive Architectonics for Human and Non-Human Coexistence: Toward Water-Based Biodiversity Oriented Spatial Practices

October 2025 **BIODLF-25: Bio-design for Living Futures** · Barcelona
co-author of two papers · presented by Fitnat Cimşit Koş and Betül Ozar ("Water-Ground") and Ayşenur Sanlı ("Bio-Tectonic Morphogenesis")

July 2025 **ICSA 2025 — 6th International Conference on Structures and Architecture** · Antwerp
co-author of two papers: "Parametric Material Autopsies" (8 July, Structures & Crafts: Digital Assemblies) and "Transcalar Bio-Tectonics" (11 July, From Micro to Macro: Revitalizing Spaces) · presented by co-authors

April 2025 **CA²RE Milano 2025 — AUTHORSHIPS** · Milan
co-author: "Transcalar Materials as Narrative Agents: Challenging Traditional Metrics of Originality" · presented by Fitnat Cimşit Koş

April 2023 **5th International Symposium on Art and Design Education: Sustainability in Art and Design** · Ankara
paper presentation (with Levent Ayata, online): Producing Without Consuming as a Production Method in Art — session 12

November 2015 **1st International Congress on Engineering, Architecture and Design** · Kocaeli
full paper (presented by Özgür Kavurmacıoğlu)

August 2015 **IASS 2015 Annual International Symposium: Future Visions** · Amsterdam
paper presentation (presented by Özgür Kavurmacıoğlu; DFF2 — Digital Form Finding and Optimisation, 20 August, BIMhuis) and two workshops (16 August 2015)

TALKS AND PANELS

June 2026 **Neil Leach: Alien Intelligence — keynote and panel** · Istanbul
speaker and panellist

September 2024 **MedEA Carloforte Shade Lab 2024 — Responsive Ground as an Inventor; A Bio-scalar Model for Urban Regeneration** · Carloforte
speaker, online (joint talk, Responsive Ground Research Lab)

March 2023 **Experimental Design — Healing Earthquake Wounds through Education seminar series** · Istanbul
speaker (on behalf of the Department of Interior Architecture and Environmental Design)

February 2017 **Lunch Time Lectures 4 — Experimental Approaches in Architecture** · Istanbul
speaker

JURIES, CRITIQUES AND COORDINATION

September 2023 **PROMOTÜRK Award-Winning Industrial Product Design Competition — Eco-friendly Promotional Products** · Istanbul
jury member (experimental designer); evaluation area: Design Process and Environmental Adaptation

May 2023 **18th Venice Architecture Biennale — Students as Researchers: Creative Practice and University Education (official collateral event)** · Venice
critic (listed under "Critics" in the catalogue) — GTU contribution "Responsive Landscape"

2021–2022 **Solar Decathlon Europe 21/22 — Team Deeply High, pavilion design** · Istanbul
research instructor; lead of the pavilion design process

EXHIBITIONS AND RESEARCH PROGRAMMES

March 2026 — **Selka Robotic Concrete — 3D concrete printing of bio-receptive prototypes, on-site production and technical visit** · Eskişehir
coding and modelling in the RGRL team; site visit and 1:1 robotic production session with GTU students

November 2025 — **Unexpected Uncertainties (UU) — CoCoon.bio Virtual Exhibition** · online
RGRL (founding member; researcher)

November 2025 — **Vertico Greenfield Residency 2025 — Water-Ground Structures: Robotic Earth-Water Scaffolds** · Eindhoven
researcher and tutor (RGRL team, winning group); among the process leads

November 2025 — **Morph-ora — International Antalya Architecture Biennale 4.5 "Arada / In-Between" (IABA 2025), open call selection** · Antalya
researcher and tutor (RGRL); open call selection

COMPETITIONS

May 2017 — **Rome 2017: 21st Century River Renaissance (Eleven Magazine)** · Rome
team member (team leader Gizem Akgün); all work done jointly

February 2017 — **International Bandırma Design Park Competition (Balıkesir Metropolitan Municipality)** · Bandırma
team member (team of three)

May 2016 — **IASS 2016 Design Competition for Young Generation — New National Stadium Japan** · Tokyo
team member (team of two, shared tasks); proposal submitted by post

WORKSHOPS AND CONFERENCES ATTENDED

April 2021 — **Computational Design: NEXT 4.0** · online
participant

January 2021 — **Computational Design: NEXT 3.0** · online
participant

September 2020 — **Computational Design: NEXT 2.0** · online
participant

June 2020 — **Computational Design: NEXT 1.0** · online
participant

March 2016 — **Symbiotic Associations** · Barcelona
participant

October 2015 — **FlexiMold — Yaşar University × TU Delft workshop** · İzmir
participant

CERTIFICATES

December 2013 — **Archineer® in Membrane Structures — IMS membrane structures training**
certificate

RESEARCH INTERESTS

algorithmic design · design process · experimental design · computational design · digital modelling · digital fabrication · bio-tectonics · transcalar design · tensegrity structures · kinetic architecture · public art interventions · design education