

CURRICULUM VITAE

Dimitris Papanikolaou, DDes, is the director of the Urban Synergetics Lab at the University of North Carolina Charlotte (UNCC) and an Assistant Professor jointly between the School of Architecture and the Department of Software Information Systems. His research integrates areas of big data, complex systems modeling, and interactive computing to design and analyze intelligent urban, building, and mobility systems. His interests include ubiquitous computing, computer-supported cooperative work, multiagent systems, system dynamics, information visualization, urban operations research, human-building interaction, and design research. He holds a Doctor of Design from Harvard GSD, an MSc from MIT Media Lab, and a SMArchS from MIT Architecture.

1 EDUCATION

1.1 HARVARD UNIVERSITY, CAMBRIDGE, MA

Doctor of Design (DDes), Graduate School of Design (GSD)

Mar 2016

Dissertation: "The Potential of On-demand Urban Mobility: Lessons from System Analysis and Data Visualization"

Committee: Prof Jose Gomez-Ibanez (advisor), Prof Jeffrey Schnapp, Prof Spiro Pollalis.

1.2 MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT), CAMBRIDGE, MA, USA

Master of Science in Media Arts and Sciences, Media Lab

Sep 2011

Thesis: "The Market Economy of Trips"

Committee: Prof William Mitchell (advisor, 2009-2010), Kent Larson (advisor, 2010-2011), Prof John Sterman, Prof Neil Gershenfeld, Prof David Parkes (Harvard SEAS).

1.3 MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT), CAMBRIDGE, MA, USA

Master of Science in Design and Computation, School of Architecture & Planning (SAP)

Jun 2008

Thesis: "Attribute Process Methodology: Feasibility Assessment of Digital Fabrication Production Systems for Planar Part Assemblies Using Network Analysis and System Dynamics"

Committee: Prof William Mitchell (advisor), Prof Larry Sass, and Prof Dennis Shelden.

1.4 NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA), ATHENS, GREECE

5-year Diploma in Architectural Engineering (MEng / Dipl.-Ing. equivalent)

Jun 2004

Thesis: "Junction and Disjunction: Redevelopment of Piraeus Port"

Committee: Prof Tasos Biris (advisor), and Prof Panagiotis Toulaiatos.

1.5 DELFT UNIVERSITY OF TECHNOLOGY (TUD), DELFT, NETHERLANDS

Erasmus Exchange Scholar in the Department of Architecture

2000-2001

1.6 NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA), ATHENS, GREECE

Registered student in the School of Naval Architecture and Marine Engineering

1995-1996

2 APPOINTMENTS

2.1 UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE (UNCC)

Assistant Professor (Tenure Track), joint appointment between: 2017 - current

- School of Architecture, College of Arts + Architecture
- Department of Software Information Systems, College of Computing and Informatics

Founder and Director, Urban Synergetics Lab 2018 - current

Faculty Affiliate, Infrastructure and Environmental Systems (INES) Program 2018 - current

Faculty Affiliate, Complex Systems Institute 2017 - current

2.2 HARVARD UNIVERSITY

Postdoctoral Associate (working with Prof Jose Gomez-Ibanez), Graduate School of Design 2016 - 2017

Energy and Environment Fellow, Harvard Center for the Environment 2013 - 2014

Teaching Fellow (for prof Martin Bechthold and prof Panagiotis Michalatos) Fall 2012

Research Assistant, Responsive Environments and Artifacts Lab Spring 2012

2.3 NEW YORK UNIVERSITY (NYU)

Assistant Professor (Adjunct), Interactive Telecommunications Program (ITP), Tisch School of the Arts 2014 - 2015

Microsoft Research (MSR), Redmond, WA

Research Intern, Computational User Experiences & VIBE groups (for A.J. Bernheim Brush and Asta Roseway) Summer 2014

2.4 MIT

Research Assistant, MIT Media Lab, Smart Cities & Changing Places groups 2009-2011

Research Fellow, MIT Media Lab, Smart Cities group 2008-2009

Teaching Assistant (for Prof William Mitchell and Kent Larson), MIT Media Lab 2008-2011

Research Assistant, Digital Fabrication Group, MIT Architecture Summer 2007

Teaching Assistant (for Prof Dennis Shelden), MIT Architecture Spring 2007

3 RESEARCH FUNDING AND AWARDS

3.1 PEER REVIEWED GRANTS, AWARDS, DISTINCTIONS / INTERNATIONAL

Buckminster Fuller Challenge (\$100,000), 2009. International innovation prize that awards “outstanding visionary projects with the capacity to solve humanity’s most pressing problems” Investigators: Ryan Chin, Charles Guan, William Lark, Michael Lin, Dimitris Papanikolaou, Raul-David Poblano Andres Sevtsuk. PI: William Mitchell.

3.2 PEER REVIEWED GRANTS, AWARDS, DISTINCTIONS / NATIONAL

Knight Foundation Celebrate Charlotte Arts Grant (\$23,080), 2019-2020. Received one out of twelve grants totaling \$200K from the Knight Foundation to fund ideas that showcase artistic excellence and capture the spirit of Charlotte. PI: Dimitris Papanikolaou

National Design Competition in USA: Billes Products, New Orleans, LA, 2008. **Finalist.** Team: Dimitris Papanikolaou

National Design Competition in Greece: Cultural Center of Pylaea (€50,000), 2002. **First Prize.** Team: Tasos Biris, Katerina Michalopoulou, Antonis Touloumis, Sofia Tsiraki, Dimitris Papanikolaou (Design Intern).

National Design Competition in Greece: Town Hall of Aghia Paraskevi (€50,000), 2002. **First Prize.** Team: Tasos Biris, Konstantios Daskalakis, Maria Mandalaki, Marina Stasinopoulou, Alexandros Vazakas, Dimitris Papanikolaou (Design Intern).

3.3 PEER REVIEWED GRANTS, AWARDS, DISTINCTIONS / INSTITUTIONAL

NSF I-CORPS (\$5,000), 2019, UNC Charlotte, Inter-Connected Hybrid lab- 6 weeks program.

Faculty Research Grant UNCC (\$8,000), 2018-2019. Title: Simple Dynamic Models for Sizing and Rebalancing Mobility on Demand Systems. PI: Dimitris Papanikolaou

Faculty Research Grant SOA UNCC / Innovative Design Practices (\$7,500), 2018-2019. Title: Mediated Architecture: Integrating Electronics into Materials and Assemblies. PI: Dimitris Papanikolaou

Urban Synergetics Lab (\$42,000), Spring 2018. One-time fund awarded from UNCC CoAA to build the Urban Synergetics Lab.

Meyer Transportation Research Harvard Kennedy School of Government (\$20,000), 2016. Title: The Potential of On-Demand Mobility. One-time award in support of doctoral dissertation

Harvard Deans' Design Challenge: Urban Life 2030 (\$15,000), 2014. Title: Cloudcommuting. Award in university-wide innovation prize that awards "projects that envision order of magnitude improvements to the livability of our cities by 2030." Organized by the School of Engineering and Applied Sciences (SEAS), the Graduate School of Design (GSD), and the Harvard Business School (HBS). PI: Dimitris Papanikolaou

MIT Transportation Showcase, 2011. Award in category "Economics, Finance, Policy and Land Use." MIT Transportation Club's flagship event that showcases the transportation research carried out at MIT, strengthening connections among industry and academia. PI: Dimitris Papanikolaou

3.4 SCHOLARSHIPS/FELLOWSHIPS

ACADIA Conference Scholarship Award (\$370) 2016

Harvard Graduate Consortium on Energy and Environment Scholarship (\$13,500) 2014

Gerondelis Scholarship for graduate studies at MIT (\$5,000) 2007

MIT Media Lab 2-year full tuition award (\$84,100) 2009-2011

MIT Architecture 2-year half tuition award (\$42,050) 2006-2008

Fulbright Fellowship for graduate studies at MIT (\$18,000) 2006-2008

Erasmus Scholarship (€1,500) 2000

Graduation Distinction **NTUA** 2004

4 RESEARCH

4.1 URBAN SYNERGETICS LAB

The Urban Synergetics Lab, directed by Prof. Dr. Dimitris Papanikolaou, designs, studies, and develops enabling technologies that connect humans, objects and places cooperatively across scales, physically or virtually. We envision a future in which ambient intelligence emerges naturally from how humans interact with data with and through the physical environment. Towards this end, we develop data-

driven simulation models to understand dynamics of urban systems; we prototype connective hardware and software technologies; and we design social mechanisms to incentivize cooperative behavior. The Urban Synergetics Lab is located in Room 146 in Storrs Hall, and it represents a collaboration between the School of Architecture and the College of Computing and Informatics.

4.2 ONGOING RESEARCH PROJECTS

Pneuxels: A participatory platform for remotely actuating interactive inflatables in urban scales

Cloudcommuting: A participatory online platform for dynamically pricing Mobility on Demand systems

Activity Identification through Mixture Models in MoD Systems: A Machine Learning approach to identify activities and their consistencies in trip patterns in mobility-on-demand systems.

The True Cost of Traveling by (Autonomous) Taxi: A method to estimate cost savings from implementing autonomous shared mobility systems using taxi cabs as proxies

Stochastic Modeling of Commuting Trips: A macroscopic approach to stochastically simulate roundtrip data from commuting and leisure activities

Empty Trip and Idle Duration Identification from Taxi Cab Data: A Machine Learning Approach on Identifying Empty Trips from Idle Periods in Taxi Trip Data.

Comparing Dynamics between Docked and Dockless MoD Systems: A comparative analysis of accumulation dynamics between stationed and stationless mobility-on demand systems in selected cities

Land Use Transport Interaction Dynamics: A deterministic land use transportation model that links land use patterns to trip flow patterns and to accumulation dynamics

Inverse Four Step Modeling: A method to predict Land Use Data from Analyzing Mobility Dynamics

Mediated Architecture: Integrating electric circuits into materials and assemblies

Tectonic Computation: Mechanical computing machines that compute by manipulating geometric or material configurations

5 PUBLICATIONS / EXHIBITIONS

5.1 PEER REVIEWED CONFERENCE PUBLICATIONS/PRESENTATIONS

Deshpande, Manoj, Saquib Sarwar, Atefeh Mahdavi, and **Dimitris Papanikolaou**. 2019. "Pneuxels: A Platform for Physically Manifesting Object-Based Crowd Interactions in Large Scales." In Proceedings of the 2019 ACM International Joint Conference and 2019 International Symposium on Pervasive and Ubiquitous Computing and Wearable Computers, 9–12. UbiComp '19. London, UK: ACM

Papanikolaou, Dimitris. "Computing and Visualizing Taxi Cab Dynamics as Proxies for Autonomous Mobility on Demand Systems. The Case of the Chicago Taxi Cab System." In proceedings of CAAD Futures 2019: Hello Culture. KAIST, Daejeon, Korea, 2019.

Papanikolaou, Dimitris. "Travel Together or Not?" In proceedings of 15th Architectural Humanities Research Association International Conference Smartness? Between Discourse and Practice. TU Eindhoven, Netherlands, 2018.

Papanikolaou, Dimitris. "Architectural Computing: Pedagogical Experiments at the Intersection of Architectural Design and Mechanical Computation." In proceedings of 24th Annual Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA 2019): Intelligent & Informed. Victoria University of Wellington, New Zealand, 2019.

Papanikolaou, Dimitris. "Computing (with) Architecture: Pedagogical Explorations at the Intersection of Design and Mechanical Computation." Ins proceedings of 107th Annual Meeting - Association of Collegiate Schools of Architecture: BLACK BOX: Articulating Architecture's Core in the Post-Digital Era. CMU, Pittsburgh, PA, 2019.

Parnami, A. Prajval Bavi, **Dimitris Papanikolaou**, Srinivas Akella, Minwoo Lee, and Siddharth Krishnan. Deep Learning Based Urban Analytics Platform: Applications to Traffic Flow Modeling and Prediction. In Proceedings of 3rd ACM SIGKDD International Workshop on Urban Computing (Mining Urban Data) (London, UK, 20 August 2018).

Papanikolaou, D. Data-driven State Space Reconstruction of Mobility on Demand Systems for Sizing-Rebalancing Analysis. In Proceedings of the 2018 Symposium on Simulation for Architecture and Urban Design - SimAUD, (TU Delft, The Netherlands, MA, USA, 4-7 June 2018)

Papanikolaou, D. BodyPrint: Exploring Architecture as a Medium for Human Interaction. In Proceedings of the 2016 Association for Computer Aided Design in Architecture (ACADIA): Posthuman Frontiers: Data, Designers and Cognitive Machines (University of Michigan Taubman College, Ann Arbor, Michigan, 27 - 29 October 2016). (Award)

Papanikolaou, D. A.J. Bernheim Brush, and Asta Roseway. BodyPods: Designing Posture Sensing Chairs for Capturing and Sharing Implicit Interactions. In Proceedings of ACM SIGCHI TEI'15: 9th International Conference on Tangible, Embedded and Embodied Interaction (Stanford University, Stanford, CA, 15-19 January 2015)

Papanikolaou, D. Cloudcommuting: Games, Interaction, and Learning. In Proceedings of ACM SIGCHI IDC'13: 12th International Conference on Interaction Design and Children (New York, NY, 24-27 June 2013)

Papanikolaou, D. and Larson K. Constructing Intelligence in Point-to-Point Mobility Systems. In Proceedings of the IEEE 9th International Conference of Intelligent Environments (Athens, Greece, 18-19 July 2013)

Papanikolaou, D. Pricescapes: Connecting Distance, Time, and Payoffs. In Proceedings of the 4th Writing Cities Conference: Distance and Cities (LSE, London, UK, 19-21 May 2011)

Papanikolaou, D. Vehicle Dynamics: A New System Dynamics Framework for Modeling Behavior of Vehicle Sharing Systems. In Proceedings of the 1st Symposium on Simulation for Architecture and Urban Design - SimAUD, (Boston, MA, USA, 4-7 April 2011)

Papanikolaou, D. Understanding Behavior of Intelligent Self-Organizing Vehicle Sharing Systems. In Proceedings of the 14th Iberoamerican Congress in Digital Graphics - SIGraDi (Bogota, Colombia, 17-19 Nov. 2010)

Papanikolaou, D. Digital Fabrication Production System Theory: Evaluating Assemblability of File-to-Factory Projects Using Network Analysis. In Proceedings of the 1st International File to Factory Symposium (Chania, Greece, 2-5 September 2009)

Papanikolaou, D. Digital Fabrication Production System Theory: towards an integrated environment for design and production of assemblies. In Proceedings of the 12th Iberoamerican Congress in Digital Graphics - SIGraDi (Havana, Cuba, 1-5 Dec. 2008)

Papanikolaou, D. Evaluating Assemblies of Planar Parts Using Liaison Graph and System Dynamics. In Proceedings of the 26th Annual Conference of Education and Research in Computer Aided Architectural Design in Europe - eCAADe (Antwerp, Belgium, 17-20 Sept. 2008)

Papanikolaou, D. From Representation of States to Description of Processes. In Proceedings of the 1st International Conference: Critical Digital (Cambridge, MA: Harvard University, 18-19 April 2008)

5.2 PEER REVIEWED EXTENDED ABSTRACTS/SHORT PAPERS

Papanikolaou, Dimitris. 2019. "Data Driven, System Dynamics Methods for Scenario Analysis in Mobility-on-Demand Systems." In International Workshop on Putting Sustainability into Convergence: Connecting Data, People, and Systems. National University of Singapore, Republic of Singapore.

Papanikolaou, D. Urban form and Limits of On Demand Mobility. Urban Systems Design Symposium, University of Tokyo, Japan, March 19-21 2018. Part of Environment and Planning B: Urban Analytics and City Science theme issue on "Urban Systems Design: from 'Science for Design' to 'Design in Science'".

Papanikolaou, D., Ed. "The Elements of Urban Intelligence; New Pedagogies in Global Architectural Theory", in Proceedings of 102nd Annual Meeting of the Association of Collegiate Schools of Architecture (ACSA), April 2013

Papanikolaou, D., Ed. "Preface - Proceedings of the 1st International Workshop of Constructing Urban Intelligence - CUI 2013", in Ambient Intelligence and Smart Environments, vol. 17, 139-140, 2013

Papanikolaou, D. and Sterman J. The Market Economy of Trips. In Proceedings of the 29th International Conference of the System Dynamics Society - ISD, (Boston, MA, USA, 24-28 July 2011)

Papanikolaou, D. The Market Economy of Trips. In Proceedings of the 8th International Conference on Complex Systems - ICCS (Boston, MA, USA, 26 June-1 July 2011).

Papanikolaou, D. The Market Economy of Trips. In Proceedings of the 1st Interdisciplinary Workshop on Information and Decision in Social Networks - WIDS (Cambridge, MA, 31 May-1 June 2011)

Papanikolaou, D. Sustainable Self-Organizing Vehicle Sharing Systems Using Incentive Mechanisms. In Proceedings of the 2nd International Conference on Computational Sustainability (Cambridge, MA: MIT CSAIL, 28-30 June, 2010)

Papanikolaou, D. Augmenting Constructability Evaluation of CAD/CAM Projects Using Systems Theory. In Proceedings of the 3rd International Conference: Design, Computing, and Cognition (Atlanta, GA: Georgia Institute of Technology, 23-25 June 2008).

5.3 PEER REVIEWED JOURNAL ARTICLES & BOOK CHAPTERS

Papanikolaou, D. "To Share or Not? A Critical View on Personal Mobility." Architecture and Culture (Nov 4, 2019).

Papanikolaou, D. "Computing and Visualizing Taxi Cab Dynamics as Proxies for Autonomous Mobility on Demand Systems. The Case of the Chicago Taxi Cab System." In proceedings of CAAD Futures 2019: Hello Culture. KAIST, Daejeon, Korea, 2019 (Book with selected chapters from Springer Singapore).

Papanikolaou, D., "Choreographies of Information: Communication through Architectural Form in the Early Napoleonic Internet of Optical Telegraphy" in New Geographies 07: Geographies of Information, ed. Ali Fard and Taraneh Meshkani (Harvard Graduate School of Design Press, 2015).

Papanikolaou, D., "Design Methods for Adaptive Mobility" in Unconventional Computing: Design Methods for Adaptive Architecture, ed. Simone Ferracina and Rachel Armstrong (Riverside Architectural Press, 2013).

Papanikolaou, D., "Changing Forms, Changing Processes" in Interdisciplinary Design: New Lessons from Architecture and Engineering, ed. Hanif Kara et al. (ACTAR Press, 2012), 106-114

Papanikolaou, D., "Intelligent Infrastructures" in Infrastructure Sustainability and Design, ed. Spiro Pollalis et al. (Routledge, 2012), 266-274

Papanikolaou, D., "Digital Fabrication Production System: Customization on Demand" in Computational Constructs, ed. Shouheng Chan et al. (Architecture Press of China, 2010), 84-102

5.4 OTHER PUBLICATIONS

Papanikolaou, D. Exploring Alternative Sizing-Rebalancing Scenarios in Mobility on Demand Systems. In American Planning Association, Technology Division, Planning & Technology Today, Spring 2018.

Papanikolaou, D. The Shelter as a Medium for Life: Investigations on Form, Information, and Computation, Across Scales. In "A Shelter for Architecture" catalogue, Ed. Bouras C., et al. GIANY, New York. 2018.

Papanikolaou, D. With Mind and Body. In SLUS Online Magazine, Nov 2017.

Mitchell W.J., Borroni-Bird C. E., and Burns L. D., Reinventing the Automobile: Personal Urban Mobility for the 21st Century (MIT Press, 2010): Contributed with images, diagrams, and content

Papanikolaou, D., "Junction and Disjunction" in Architecture in Greece, no. 40 (2006): 38-40

5.5 PEER REVIEWED EXHIBITIONS

Group Exhibition "100 Artifacts – Faculty Work", UNCC SOA. "FabCar, BodyPods, Tidal Patterns of Human Mobility, Junction + Disjunction, and Cloudcommuting", Jan 11, 2019

Participation in group exhibition "Architecture 1:1" Benaki Museum, Athens, Greece, Oct 19 - Nov 19 2017

Participation in group exhibition "UNCC SOA Faculty Chairs" with BodyPods, 2017

ACADIA 2016: Posthuman Frontiers: Data, Designers and Cognitive Machines, University of Michigan, 2016

Visualizing Cities (CityVis.IO): Tidal Patterns of Human Mobility, 2016

5th Architecture Triennale, Crete, Greece, 2013

Media Lab Sponsor Event, MIT, 2010 - 2008

Surrealestate, Artrages 2010, Boston, 2010

Ecological Urbanism, Harvard GSD, 2009

Billes Products Design Competition, New Orleans, 2008

Design and Computation '08, MIT, 2008

5th Hellenic Exhibition of Architecture, Patras, Greece, 2006

High-Rise Buildings workshop, Netherlands Architecture Institute (NAI), Rotterdam, Netherlands, 2001

6 TEACHING

6.1 GRADUATE COURSES DEVELOPED AND TAUGHT

Data-Driven Urban Dynamics: Modeling, Simulation, Visualization (ARCH 6306/4050, MUD 6050, ITIS 8010/6010) / UNCC

Course Developer and Instructor

Spring 2019

Introduces data-driven modeling, simulation, and visualization of urban mobility systems for computational scenario analysis. Provides foundational skills in data visualization and in modeling and simulation of complex systems using System Dynamics (SD) and Agent-Based (AB) methodologies. Students learn: how to find, collect, process, visualize big urban data; how to use data to model and simulate urban systems; how to formulate meaningful research/policy questions for resiliency and sustainability and how to use simulations to explore scenarios for addressing them; how to develop interactive web-based simulation/visualization applications using state-of-the-art tools

Connective Environments 2: Human-City Interaction (ARCH 7211) / UNCC

Course Developer and Instructor

Spring 2019

Investigates design, engineering, and empirical assessment of participatory cyberphysical systems of common pool resources. We envision a future in which coordination emerges collectively from how humans interact with data, with and through the physical environment. Students will prototype enabling hardware and software technologies to connect humans, objects and places; they will design control mechanisms across scales to drive human behavior towards desired collective outcomes; and they will test these ideas through strategic game experiments.

Connective Environments 1: Human-Building Interaction (ARCH 6307/4050, ITIS 6010, ITCS 5010) / UNCC

Course Developer and Instructor

Fall 2018

Provides foundational skills in designing, prototyping, and programming interactive physical computing systems. Emphasis is on critical thinking and tradeoffs between technical complexity, end goals, design decisions, functionality, and quality of craft, when humans are part of the loop. Topics: Mechanical assemblies; human-in-the-loop systems; interactive embedded systems; tangible, embodied, and embedded interfaces; programmable materials; network communications; serial input-output; data visualization.

Intelligent Architectures (ARCH 7104 Graduate Diploma Studio) / UNCC

Course Developer and Instructor

Spring 2018

The graduate thesis studio explores the design, modeling, and analysis, of intelligent architectural or urban ecosystems as well as their cyclic transitions in time, asking the question: how do we design intelligent architectures across technologies and scales? Topic areas include: shared mobility systems; sharing systems capable of serving more demand with less capacity; transformable structures exploiting energy to adapting to programmatic needs.

Synergetic Cities: Form, Social Behavior, and Coordination (ARCH 6307/ITIS 6010/ITCS 5010) / UNCC

Course Developer and Instructor

Fall 2017

Cross-listed graduate seminar between Architecture, Software Information Systems, and Computer Science that critically reviews the evolution and design principles of systems of urban and territorial intelligence, from the ancient networks of optical telegraphy to today's internet of things. Topics: Theory and technologies of computation, information, and human factors in relation to the built environment; systems theory; cybernetics; social cooperation; game theory; mechanism design; applications in mobility, sustainability, and energy.

Museums of the 21st Century, Studio Lab (ARCH 7103) / UNCC

Course Co-Developer and Co-Instructor

Fall 2017

Research-based design studio cross-listed between Architecture, Software Information Systems, and Computer Science. Working with both augmented reality (AR) technologies and physical computing, students develop novel bidirectional mixed-reality interfaces for design exploration, learning, and spatial perception.

Rethinking Point-to-Point Urban Mobility (ITPG-GT 2621 001) / ITP NYU

Course Developer and Instructor

Fall 2014

Designed and taught a graduate-level research course that introduces the theory, underlying technologies, and operational complexities of intelligent mobility on demand (MoD) systems, using NYC Citi Bike sharing program as a case. First half of course focused on analyzing performance of truck rebalancing while second half on exploring crowd-sourced rebalancing through interactive experiments.

Toy Product Design: Mechanical Assemblies (GSD00045) / Harvard GSD

Course Developer and Instructor

Winter 2014

Designed and taught a graduate-level hands-on course that explores design, fabrication, and assembly of mechanically actuated toy cars that store kinetic energy and use it for self-propulsion. Working in teams, students learn fundamentals of mechanical assemblies, physics, parametric CAD modeling and Design for Assembly Techniques.

6.2 GRADUATE COURSES TAUGHT

Lifecycle Design (GSD6574) / Harvard GSD

Teaching Fellow

Fall 2012

Co-taught graduate-level lifecycle analysis and product design with recyclable materials. Taught modeling and simulation of material flows for industrial systems and construction industry supply chains using System Dynamics (With Prof Martin Bechthold).

Computational Design (GSD6338) / Harvard GSD

Teaching Fellow

Fall 2012

Co-taught graduate-level students computational design and advanced geometric modeling using C# programming language (With Prof Panayiotis Michalatos)

Design for Do-It-Yourself Manufacturing (MAS.S63) / MIT Media Lab

Co-Instructor

Spring 2012

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Taught design, production, and distribution strategies in a cross-disciplinary studio that explored product development of custom-made electronic devices for small quantity production (with David Mellis).

Mobility on Demand Systems (MAS.552) / MIT Media Lab

Teaching Assistant, Group Leader

2008-2011

Co-taught for six semesters a graduate-level studio in which students explored topics on logistics, performance, and economics of MOD systems using analytical, simulation, and experimental methods (with Prof William Mitchell and Kent Larson)

Architecture Design Core Studio I (4.151) / MIT Architecture

Teaching Assistant

Fall 2007

Taught design-thinking to graduate-level students helping them shape their ideas into final projects (with Prof Andrew Scott and Prof Nader Tehrani).

Professional Applications of Digital Fabrication and Construction (4.553) / MIT Architecture

Teaching Assistant

Spring 2007

Taught graduate-level students advanced parametric design and administrated relations with industrial course collaborators (with Prof Dennis Shelden).

6.3 OTHER COURSES DEVELOPED AND/OR TAUGHT

DIY: From Design to Production / Hellenic American Educational Foundation, Athens

Course Developer and Instructor

Summer 2013

Designed and taught a workshop in which mid- and high-school students learned how to design, develop, digitally fabricate, and assemble, toy products.

Smart Cities / Hellenic American Educational Foundation, Athens

Course Developer and Instructor

Summer 2012

Designed and taught a course on smart transportation systems in which high-school students learned economics and systems thinking by comparatively designing, building, playing, and analyzing interactive board games and multi-agent simulation models to understand how users make rational decisions.

CloudCommuting / NuVu Studio, Cambridge

Course Developer and Instructor

Spring 2012

Designed and taught a course on smart cities, in which high-school students used physical computing, sensors, interaction design, and game theory to collectively build an augmented board game that reacts to players' decisions with incentives.

Mobility on Demand / Vienna University of Technology

Co-instructor

Spring 2011

Taught a 5-day workshop where students developed a board game simulation to study economics and user decisions of MOD systems (in collaboration with the Austrian Institute of Technology and MIT)

Ecological Urbanism workshop / Vasco da Gama School of Architecture, Coimbra

Instructor

Spring 2011

Designed and taught a 5-day studio workshop in which students designed a vehicle-sharing deployment and used role-playing games to creatively explore topics of sustainability, economics, and self-governance.

Systems Thinking executive education workshop / MIT Sloan School of Management

Tutor

Fall 2010

Facilitated execution of the MIT Beer Distribution Game, a role-playing simulation in which participating executives learned fundamental concepts of systems thinking for supply chain management (with Prof John Sterman)

7 STUDENT SUPERVISION

7.1 DOCTORAL STUDENTS SUPERVISED

Atefeh Mahdavi Goloujeh / PhD Software and Information Systems / UNCC / Research Supervisor & Thesis Advisor

Armin Amirazar / PhD Infrastructure and Environmental Systems / UNCC / Thesis Co-Advisor

Amir Hosseinzadeh Zarrabi / PhD Infrastructure and Environmental Systems / UNCC / Thesis Co-Advisor

Behnam Nikparvar / PhD Geography and Earth Sciences / UNCC / Thesis Co-Advisor

Kim, Jin Goog / PhD Software and Information Systems / UNCC / Thesis Co-Advisor

Kaustuv De Biswas / PhD Architecture (Design Computation) / 2009 / MIT / Research Supervisor

7.2 MASTERS STUDENTS SUPERVISED

Arghavan Ebrahimi / MS Arch/IT (Design Computation) / 2019-current / UNCC / Research Supervisor

Manoj Deshpande / MS Arch/IT (Design Computation) / 2018-current / UNCC / Research Supervisor

Saquib Sarwar / MS Arch/IT (Design Computation) / 2018-current / UNCC / Research Supervisor

Yijing An / MS Arch/IT (Design Computation) / 2018-2019 / UNCC / Thesis Advisor (**Best Research Thesis Award 2019**)

Bhargavi Narayan Bhat / MS Information Technologies / 2018 / UNCC / Research Supervisor

Saipavan Narasaraj / MS Computer Science / 2019 / UNCC / Research Supervisor

Neha Sambhaji Patil / MS Computer Science / 2019 / UNCC / Research Supervisor

Paul McKnight / MS Arch/IT (Design Computation) / 2017-2018 / UNCC / Thesis Advisor (**Best Research Thesis Award 2018**)

Alireza Fatemi / MS Arch/IT (Design Computation) / 2018-2019 / UNCC / Research Supervisor

Norman Dandridge / MArch / 2016 / Massachusetts College of Art and Design / Thesis Co-Advisor

Vina Rahimian / MS Arch / 2014 / Penn State University / Thesis Co-Advisor

7.3 UNDERGRADUATE STUDENTS SUPERVISED

Jet SiZhi Zhou / BS Computer Science and Engineering / 2011 / MIT / Research Supervisor (UROP)

Marcus Parton / Undergraduate Research Opportunities Program (UROP) / 2008 / MIT / Research Supervisor

7.4 RESEARCH FELLOWS SUPERVISED

Koiti Saaravet / Visiting Scholar, Hubert H. Humphrey Fellowship Program (Fulbright) / 2008 / MIT / Research Supervisor

Jorge Andres Barrios / Intern MIT Summer Research program (MSRP) / 2008 / MIT / Research Supervisor

8 SERVICE

8.1 INVITED TALKS AND PRESENTATIONS / EXTERNAL

Future Cities Laboratory (FCL) Lunch Talk, ETH Singapore, Jan 30 2019 (invited by Prof Stephen Cairns)

Singapore University of Technology and Design (SUTD), Lunchtime Talk, Jan 31 2019 (invited by Prof Michael Budig)

Piaggio Fast Forward, Cambridge, MA, Jan 18, 2019 (invited by Greg Lynn (CEO) and Jeffrey Schnapp)

Connect X City as a Platform, panel discussion, May 23, 2018 (invited by CCI Dean Fatma Mili to replace her as a representative of UNCC CCI)

Passport INC, "Outside-In" Seminar, Feb 13 2018 (Invited by Christina Kyriazi)

UN STUDIO NL, Amsterdam: Top Floor Dialogues No 52, Jun 08 2017 (invited by Ben Van Berkel)

Penn State University SEDTAPP, Feb 07 2017. Special Talk (invited by Scarlett Miller)

University of North Carolina at Charlotte, Feb 03 2017. Special talk (invited by Eric Sauda)

University of Michigan: Institute for Data Science / MIDAS, Jan 13 2017 (invited by Alfred Hero)

HISTEM 2016, Architectural Studio Tinkerings workshop, University of Athens Greece, Dec 16 2016

Harvard University GSD: Open Projects MDes, Nov 02 2016 (invited by Delia Wendel)

University of Michigan: ACADIA conference, Oct 28 2016 (invited project presentation)

European Code Week: 4th Public School of Voula, Greece, Oct 23 2016 (**Keynote**)

Massachusetts College of Art and Design: Tuesday Talks, Oct 18 2016 (invited)

MIT Senseable City Lab (invited by Carlo Ratti), Oct 04 2016

MIT Sloan School of Management: System Dynamics Seminar, May 06 2016 (invited by John Sterman)

MIT School of Architecture and Planning: Design Computation PhD Forum, Apr 27 2016 (invited)

32nd System Dynamics PhD colloquium, Worcester Polytechnic Institute, Apr 22 2016

Greek Institute of Architects New York: DIALOGUES, Apr 15 2016 (invited by GIANY)

Dartmouth College: Studio Art Department, Apr 14 2016 (invited by Zenovia Toloudi)

Northeastern University: College of Arts, Media, and Design, Feb 18 2016 (invited by Dietmar Offenhuber)

Harvard GSD: Responsive Environments, Feb 09 2016 (invited by Allen Sayegh)

31st System Dynamics PhD colloquium, MIT Sloan School of Management, Dec 04 2015

Dartmouth College: Department of Computer Science, Nov 17 2015 (invited by Emily Whitening)

MIT School of Architecture and Planning: Computational Making class, Mar 10 2015 (invited by Terry Knight)

Carnegie Mellon University School of Design, Feb 25 2015. Special talk.

New York University Tisch School of the Arts: Interactive Telecommunications Program, Nov 20 2014

Citi Bike Headquarters New York, Nov 09 2014

Microsoft Research FUSE Labs, Jul 24 2014 (invited by Justin Cranshaw)

Microsoft Research: HCI Intern Talks, Jul 23 2014 (Redmond, WA)

Microsoft Research: Computational User Experiences Group, Jul 10 2014 (invited by Desney Tan)

MIT Media Lab: MAS.500 – Fundamentals, Apr 18 2014

Harvard GSD: Smart[er] Cities course, Apr 18 2014 (invited by Prof Nashid Nabian)

Penn State University Stuckeman School, Apr 16 2014. Special talk,

TEDx HGSE, Harvard Graduate School of Education: Imagine. Inspire. Ignite, Apr 12 2014

Arizona State University Herberger Institute for Design and the Arts, Apr 09 2014. Special talk.

Office for Metropolitan Architecture (OMA) New York, Mar 18 2014 (invited by Shohei Shigematsu)

Harvard GSD: Advanced Studies Program Doctoral PechaKucha, Feb 21 2014

New Jersey Institute of Technology College of Art and Design, Feb 11 2014. Special talk

Wentworth Institute of Technology: Transportation Design and the Sustainable City, Feb 10 2014

Harvard GSD: Networked Urbanism Studio, Oct 16 2013 (invited by Belinda Tato and Jose Luis Vallejo)

Institute for Research in Art and Design (IDK) FHNW Basel, Jul 19 2013. Special talk

University of California Berkeley: Institute of Design, Mar 21 2013 (invited by Prof Dor Abrahamson)

University of Patras: Architecture of Complex Systems; from Assemblies to Smart Cities, Jan 15 2013 (invited by Prof Yannis Aesopos)

National Technical University of Athens: Interdisciplinarity in Design, Research & Education, Jan 10 2013 (invited by Prof Dimitris Papalexopoulos)

National Technical University of Athens: Smart Cities, Mobility, and Coordinated Behavior, Dec 11 2013 (invited by Prof Panagiotis Tournikiotis)

MIT Senseable City Lab, Nov 06 2012

27th System Dynamics PhD colloquium, University of Albany, Nov 01 2013

Harvard Graduate Consortium on Energy, Harvard Center for the Environment, Oct 11 2013

MIT Global Sustainability Working Group, MIT SAP, May 01 2013

Connect1ons Conference on Network Science, MIT Media Lab, Dec 17 2012

Smarter Cities Symposium, Harvard GSD, Dec 03 2012

Harvard Graduate School of Education: Future Technologies in Education, Apr 04 2012

MIT Transportation Showcase, MIT Museum, Nov 17 2011

NOKIA Research Center (Cambridge, MA), Nov 09 2011

Wentworth Institute of Technology, School of Architecture: How to do a thesis research, Oct 27 2011 (invited by Prof Zenovia Toloudi)

MIT Energy Night, MIT Museum, Oct 21 2011

MIT Sloan School of Management: Design Club, Oct 18 2011

MIT SAP: Design Computation PhD forum, Oct 14 2011

Innovations in Sustainable Mobility, MIT Media Lab, Professional Education Short Programs, Jun 27-30 2011

Writing Cities Conference, London School of Economics, 19-21 May 2011

University of Coimbra: Energy for Sustainability Initiative, Apr 29 2011

Portuguese Chamber of Architects: Ginko gallery (Algarve, Portugal), Apr 29 2011

MIT Energy Conference, Mar 4 2011

Harvard GSD: Research Demo for DDes program, at MIT Media Lab, Nov 02 2010 (invited by Eve Blau)

State Farm: Research Demo at MIT Media Lab, Oct 26 2010

Fujitsu Laboratories: Research Demo for Fujitsu chairman & Director for Mobile Phones Business Group, Oct 12 2010

World Future Society: Research Demo at MIT Media Lab, Jul 08 2010

NISSAN Research Salon: MIT Faculty Club, Jul 7-8 2010

MIT Senseable City Lab, Jun 29 2010

Smart Customization Conference, MIT Media Lab, Jun 20-21 2010

BBVA: Research Demo for BBVA Chairman and CEO at MIT Media Lab, Jun 10 2010

Adolfo Ibanez University, Chile: Research Demo for Dean of the Business and Innovation School and President at MIT Media Lab, Jun 10 2010

General Motors: Research Demo for Vice President of GM China and General Manager of GM Beijing Operation, Jun 08 2010

Honda Research Institute: Research Demo for Honda R&D, and Honda Research Institute, Jun 03 2010

20th System Dynamics PhD Colloquium, MIT Sloan School of Management, Apr 30 2010

Motorola MIT Liaison: Research Demo for Sheila Griffin, Apr 23 2010

Architectural Association of London: Research Demo for Design Research Laboratory, Apr 20 2010 (invited by Prof Theo Spyropoulos)

MIT Media Lab Annual Research Conference, MIT Media Lab, Apr 20 2010

Urban Land Institute: Research Demo for ULI Forum: Smart Environments, Apr 16 2010

Ubiquitous Eco-Cities Symposium, Harvard GSD, Apr 12 2010

US House of Representatives: Research demo at MIT Media Lab, Apr 06 2010

Siebel Fellows: Research demo at MIT Media Lab, Apr 05 2010

Denokinn: Research demo at MIT Media Lab, May 07 2010

DARPA Service Fellows: Research demo at MIT Media Lab, Mar 17 2010

Media Lab Building's Donors: Research Presentation, Mar 05 2010

MIT Energy Conference, Mar 4 2010

Autolib, Paris, Jan 21 2010 (invited by Autolib Head Manager)

MIT DUSP, Dec 11 2009 (Invited by Prof Chris Zegras)

World Design Congress: 26th International Council of Societies of Industrial Design (ICSID) Singapore, Nov 23-27 2009

5th Symposium on Design Science, Rhode Island School of Design, Nov 14-15 2009

MIT House N Research Consortium: MIT Faculty Club, Jun 23 2009

Adrian Smith + Gordon Gill Architecture (Chicago, IL), Jun 09 2009 (invited by Carlo Parente)

Buckminster Fuller Institute (Chicago, IL), Jun 5-6 2009

The Dallas Assembly: Research Presentation at MIT Media Lab, Apr 24 2009

Harvard GSD: Urban Mobility Lecture Series, Apr 4 2009

MIT Design and Computation Alumni Symposium, MIT SAP, Feb 2009

Technical University of Delft (TUD): Research Presentation for The Why Factory at MIT Media Lab, Nov 20 2008

MIT Leaders for Manufacturing Program: Research demo for LFP students, Nov 07 2008

Catholic University School of Architecture: Research Demo for Prof Carlos Barrios & 12 students, Oct 20 2008

PechaKucha Boston Volume #4, Apr 10 2008

8.2 INVITED TALKS AND PRESENTATIONS / INTERNAL

Introduction to Computing and Information Systems Research, PhD Seminar, Nov 13, 2019 (invited by CCI Dean Fatma Mili)

Interdisciplinary Infrastructure and Environmental Systems PhD Seminar, Sep 17, 2019 (invited by Prof John Diemer)

Design Computation Research Roundtable, Apr 3, 2019 (invited by Prof. Eric Sauda)

FBI/RNC 2020 visit, USL demo talk, Mar 20, 2019 (organized by Cherie Maestas)

Tampere University and Tieto Corporation, USL demo talk, Mar 18, 2019 (invited by Doug Hague as part of the Charlotte Center for Visual and Decision Informatics - CVDI/IUCRC)

UNCC CAGIS Seminar, Feb 27 2019 (invited by Dr. Doug Shoemaker)

UNCC SOA Seminar talk (invited by Prof Chris Beorkrem)

UNCC Data Science Initiative Seminar Talk, April 27, 2018 (invited by Prof Mirsad Hadzikadic)

SOA/COAA UNCC, Architecture + Urbanism Lecture Series, Feb 26 2018 (invited by Prof Zhongjie Lin)

Data Science Initiative UNCC, Seminar, Feb 09 2018 (invited by Mirsad Hadzikadic)

Data Visualization Center, UNCC, Seminar, Feb 01 2018 (invited by Prof Zachary Wartell)

CCI UNCC, Computation & Interdisciplinary Research, Dec 01, 2018 (invited by Alireza Karduni)

Complex Systems Institute UNCC, Complex Conversations, Nov 17 2017 (invited by Mirsad Hadzikadic)

SOA/COAA UNCC, Design Computation Seminar, Nov 09 2017 (invited by Eric Sauda)

SIS/CCI UNCC, PHD Seminar, Oct 27 2017 (invited by Mary Lou Maher)

SIS/CCI UNCC, HCI Seminar, Oct 06 2017 (invited by Mary Lou Maher)

SOA/COAA UNCC, Computational Methods Seminar, Sep 22 2017 (invited by Rachel Dickey)

SOA/COAA UNCC, Seminar, Sep 08 2017 (invited by Chris Jarrett)

8.3 INVITED DESIGN STUDIO CRITIC / EXTERNAL

Harvard GSD, MDes Thesis Final Reviews, Spring, 2019

Harvard GSD, STU 1232: Collaborative Design Engineering Studio II, Final Reviews, Spring, 2019

Harvard GSD, VIS 2314: Responsive Environments: Episodes in Experiential Futures, Final Reviews, Spring, 2019

Carnegie Mellon University SOA, Design Computation MS Thesis, Mid Reviews, Spring, 2019

Northeastern University, Architecture Infrastructure and the City, Mid and Final Reviews, Fall, 2016

Massachusetts College of Art and Design, M.Arch Thesis Studio, Mid Reviews Fall 2016

Dartmouth College, Studio Art Department, ART 66/68: Art, Architecture, and Public Space, Fall 2016

Harvard GSD, HGSD 6349 Mapping II: Geosimulation, Final Reviews, Fall, 2016

Harvard GSD, HGSD 02314: Responsive Environments: Bergamo eMotion, Final Reviews, Spring, 2016

Harvard GSD, HGSD 6328: Interdisciplinary Design and Practice, Final Reviews, Spring, 2016

Harvard GSD, HGSD 02314: Responsive Environments: Bergamo eMotion, Mid Reviews, Spring, 2016

Dartmouth College, Studio Art Department, SART 66/68: Architecture and Living Matter(s), Fall 2015

Dartmouth College, Studio Art Department, SART 65: Intro to Architecture, Digital Technology, and Culture, Spring 2015

MIT School of Architecture and Planning, 4.552 Computational Making: Light and Motion, Spring 2015

Harvard GSD, HGSD 01304: Socio-Environmental Responsive Design, Fall 2014

Harvard GSD, HGSD 01502: Networked Urbanism: Urban Waste - Urban Design, Fall 2013

MIT School of Architecture and Planning, 4.112: Architecture Design Fundamentals I — Origins of Life, Fall 2013

Harvard GSD, HGSD 01502: Networked Urbanism, Fall 2012

Harvard GSD, HGSD 0s468: Digital interfaces for collaborative and participatory design, Fall 2012

Benaki Museum of Contemporary Art, Digital Design Workshop, Summer 2012

Boston Architecture College, SA701: Foundation Design A-1 Masters, Spring 2010

Boston Architecture College, SA701: Foundation Design A-1 Masters, Fall 2009

Parsons, the New School for Design, Architecture Thesis Studio, Fall 2008

8.4 INVITED DESIGN STUDIO CRITIC / INTERNAL – SELECTED

UNCC SOA, MUDD6102: Urban Open Space and Infrastructure, Mid Reviews (Apr 11) and Final Reviews, Spring 2019

UNCC SOA, ARCH6102: Program / Materiality: in: formation, Final Reviews, Spring 2019

UNCC SOA, ARCH7104: Multivariate Design. Final Reviews, Spring 2019

UNCC SOA CriticalMass Event (Student-led Design Competition), Spring 2018

UNCC SOA Design Studio Mid Reviews for Kelly Carlson-Reddig, Spring 2018

UNCC SOA, ARCH4101: (re)SKIN_Kinetic Envelopes, Final Reviews, Fall 2017

8.5 EDITOR

International Journal of Architectural Computing (IJAC)

Associate Editor

2020-2021

The International Journal of Architectural Computing (IJAC) is a peer-reviewed journal founded by international organizations dedicated to promoting collaborative research and development of computer-aided architectural design.

8.6 SCIENTIFIC COMMITTEE / PEER REVIEWER

ACSA 108

International Conference / San Diego, CA, Mar 12-14, 2020. Reviewed papers in topics related to digital technology, urbanism, and architectural theory.

SimAUD 2019

International Conference / Georgia Institute of Technology, Atlanta, GA, Apr 07-09, 2019. Reviewed papers in topics related to data, urban modeling and simulation

CAADRIA 2019

International Conference / Victoria University of Wellington, New Zealand, Apr 15-17, 2019. Reviewed papers in topics related to data, urban modeling and simulation

ACADIA 2019

International Conference / The University of Texas at Austin, Austin, TX, Oct 24-26, 2019. Reviewed papers in topics related to smart cities and interactive environments

ACADIA 2018

International Conference / University Iberoamericana, Mexico City, Oct 18-20, 2018. Reviewed papers in topics related to smart cities and interactive environments

Technology Architecture & Design (TAD): Issues 04

Journal / Reviewed papers in topics related to urban simulation

ACADIA 2017

International Conference / MIT, Cambridge, MA, 2 - 4 November 2017. Reviewed papers in topics related to smart cities and interactive environments

Technology Architecture & Design (TAD): Issues 02 & 03

Journal / Reviewed papers in topics related to urban simulation

Technology Architecture & Design (TAD): Issue 01

Journal / Reviewed papers in topics related to smart cities

IEREK: Parallelism in Architecture, Environment and Computing Technologies (PACT)

International Conference / London, UK, 12 - 14 September 2016. Reviewed papers in topics related to smart cities and interactive environments

ACADIA 2016

International Conference / University of Michigan Taubman College, Ann Arbor, Michigan, 27 - 29 October 2016. Reviewed papers in topics related to smart cities and interactive environments

ACSA International Conference 2016

International Conference / Pontificia Universidad Católica de Chile, Escuela de Arquitectura, Santiago, Chile, Jun 29-Jul 1, 2016. Reviewed papers in session: "Ecology"

9th International Conference on Intelligent Environments

International Conference / Athens, 16-17 July 2013. Reviewed papers in session "Intelligent Environments for Creative Learning"

Open Hardware Summit 2012

International Conference / New York, US. Reviewed papers in topics related to smart technologies.

8.7 JUROR IN COMPETITIONS

Building Global Innovators (€1,000,000 prize)

Venture Competition 4th Edition: Smart Cities track. MIT Portugal Program. Mentor and Judge 2013

Innovation Prize for Africa (\$150,000 prize)

University of Cape Town Business School, South Africa. Judge 2013

Innovate Salone

Youth innovation competition, Sierra Leone, Africa. Judge 2012

8.8 CONTRIBUTOR IN WORKSHOPS

OpenIDEO. Amnesty International Challenge, MIT, Nov 03 2011

The **MEME**. Connected Car Design Studio, Cambridge, MA, Jun 06-09 2011

SARCHA. Future of Cities (online workshop), Mar 01 2010

Bank of America and **INTUIT**. Future of Payments, at MIT Media Lab, Sep 17 2009

General Motors and **SYM Motors**. Future of Mobility, at MIT Media Lab, Oct 31 2008

8.9 INTERVIEWS / PRESS COVERAGE

MIT SAP News (mention on Harvard Deans Challenge), Jul 2014

Harvard GSD News (interview on Harvard Deans Challenge), May 20 2014

Kathimerini newspaper, Greece (interview on MoD systems), Jul 11 2013

Proto Thema newspaper, Greece, Jan 09 2013

Ant1 TV News, Greece (interview on innovative teaching pedagogies), Jun 03 2012

Super Quark in **RAI TV**, Italy (interview on MoD systems), Jun 10 2011

Ta Nea newspaper, Greece, Nov 19 2010

MIT Entrepreneurship Review, USA (interview on MoD operations), May 02 2010

Maximizing Progress TV, USA, Feb 24 2010

Pathfinder News TV, Greece, Jul 27 2009

Boston University Journalism Dept. interview for Channel 5, Mar 20 2009

Cool Hunting Video, USA, Nov 27 2006

DWELL magazine, USA, Nov 26 2006

8.10 INTERNAL SERVICE AT UNCC

Department Committees

UNCC Faculty Council representing CoAA SoA, 2019-current

UNCC SOA Scholarships and Awards Committee, 2018-2019

Design + Computation PhD track (proposed) in the College of Computing and Informatics Curriculum Committee, 2018-current

UNCC SOA Scholarships and Awards Committee, 2017-2018

UNCC Construction Specification Institute (CSI) Foundation Scholarship Committee, 2017-2018

UNCC Research Fellow in Building Technology Search Committee, 2018

8.11 MILITARY / CIVIL SERVICE

Hellenic Navy, Greece

Radar Operator, Human Resources Assistant Manager,

2006 – 2005

Administered radar/radio communications with ships and ground military units and managed national security documents. Developed a scheduling algorithm to assist work shifts and supervised supply orders.

9 LEADERSHIP / OUTREACH

9.1 CONFERENCES / LECTURES ORGANIZED

Connective Environments Talks / UNCC SOA

Lectures Organized as part of courses Connective Environments 1 & 2

- Akito Van Troyer, PhD, Berklee College of Music Oct 31 2019
- Marcelo Coelho, PhD, Head of Design FormLabs Oct 29 2019
- Andy Cavatorta Oct 15 2019
- Axel Kilian, PhD, Visiting Assistant Professor MIT SOA Oct 10 2019
- Edwina Portocarrero, PhD MIT Media Lab Mar 21 2019
- Somnath Ray, Co-Founder & CEO of CLIP: Portable e-motor to Transform any bike into an e-bike Feb 21 2019
- Daniel Leithinger, PhD, Assistant Professor at University of Colorado Atlas Institute Oct 11 2017

SimAUD 2019 / Georgia Tech

Organizers: Siobhan Rockcastle, Tarek Rakha, Carlos Cerezo Davila, Dimitris Papanikolaou, Tea Zakula.

The Symposium on Simulation for Architecture and Urban Design (SimAUD) offers a platform to unite researchers and practitioners in the fields of architecture, urban design and planning, building science, and data science. As Scientific Chair, I selected the conference's reviewing committee, curated the reviewing process, made acceptance decisions, and ensured quality of highest academic standards.

Dimitris Papanikolaou, DDes

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ACADIA 2017: Education Roundtable / MIT

Organizers: Takehiko Nagakura (MIT), **Dimitris Papanikolaou** (UNCC), Carl Lostritto (RISD) 2017

The session tackles broad questions in the diverse cultures of architecture and design programs across disciplines, professions, and industry. Panelists: Ruairi Glynn (Bartlett); Heather Roberge (UCLA); Meejin Yoon (MIT); Jason Kelly Johnson (CCAC); Dan O' Sullivan (NYU ITP).

FWD TALKS / Harvard GSD

Founder, Organizer 2014-2011

FWD talks present breakthrough ideas at the intersection of design, technology, and policy, currently shaping our world. Sponsored by Harvard. Speakers included: Shohei Shigematsu (OMA); Robert Aish (Autodesk); Robert Wood (Harvard SEAS); Assaf Biderman (MIT Senseable City Lab); Ann-Pendleton Julian (KSAOSU); David Mellis (Arduino).

102nd Annual Meeting of the Association of Collegiate Schools of Architecture (ACSA) / Miami, FL

Chaired and conceived session: "The Elements of Urban Intelligence; New Pedagogies in Global Architectural Theory" Apr 2014

The session explored new pedagogical directions in the emerging interdisciplinary field of media and digital technologies in architecture, urbanism, and landscape design.

Harvard Asia Business Conference: Moving Up the Value Chain / Harvard Business School (HBS)

Chaired and conceived session: "Design, Technology, and Innovation" Apr 2014

The session explored the role of design, technology, and innovation in transforming tomorrow's economies through industry-specific value chains.

Mohsen Mostafavi in Conversation with Nicholas Negroponte / Harvard GSD

Co-organizer Oct 2013

Invited Nicholas Negroponte (MIT Media Lab founder) for a public conversation with Mohsen Mostafavi (Harvard GSD Dean) on the topic of "Designer's Pedagogy in the 21st Century."

9th International Conference on Intelligent Environments / Athens, Greece

Chaired and conceived session "Constructing [Urban] Intelligence: This, Here, Now" Jul 2013

The session explored new models, methods, and problems for constructing ambient intelligence through human interaction and media technology.

1st Annual DDes Symposium: Convergence: Research as Practice / Harvard GSD

Co-organizer Apr 2013

The symposium investigated the topic of design research in both academia and practice.

5th Writing Cities Conference / Harvard, MIT, and London School of Economics

Co-organizer May 2012

The conference provided a forum for graduate students to present peer reviewed papers on new ways of thinking cities.

Symposium: Debating Design and Innovation in Times of Crisis / Harvard GSD

Co-organizer, Moderator May 2012

The symposium investigated the role of design, innovation, and entrepreneurship during times of socioeconomic crisis.

PechaKucha Night Boston / Boston & Cambridge

Co-organizer, Co-moderator MA 2012 – 2008

Co-organized the worldwide-known public lecture series event in Boston, inviting speakers from media arts and sciences.

Smart Cities lecture series / MIT Media Lab

Organizer, Moderator 2011 – 2010

Organized lectures on smart cities. Speakers included: Prof Constantinos Daskalakis (MIT CSAIL) on Nash Equilibria and Complexity, and Mauro Martino (Northeastern University) on *Mapping Mobility Patterns*.

9.2 EXHIBITIONS CURATED

Made in Greece PLUS Exhibition / Museum of Science, Boston, MA

Co-curator

2012

Conceptualized and organized an exhibition of contemporary built and unbuilt projects by young Greek architects that demonstrate how design thinking, technology innovation, and scientific research shape the human-made environment. Sponsored by the Boston Museum of Science.

Made in Greece Exhibition / Harvard GSD

Co-curator

2011

Organized an exhibition of 18 entries (out of 80 submissions) of contemporary built and unbuilt projects by young Greek architects. Sponsored by Harvard GSD.

10 PROFESSIONAL ARCHITECTURAL EXPERIENCE

10.1 SELECTED PROJECTS AS INDEPENDENT LICENSED ARCHITECT

Bioclimatic European School in Heraklion, Crete, Greece, 2012 (participation in international competition). Designed a 6,000m² bioclimatic educational complex consisting of kindergarten, primary, and secondary education. Commissioned by the Greek School Buildings Organization [SBO]. *Featured in: 5th Architecture Triennale, in Crete.* Project Team: **Dimitris Papanikolaou** and Aristodimos Komninos.

Housing complex in Valverde, Spain, 2009 (participation in international competition). Designed a 6,000m² sustainable housing complex of 60 units. Project Team: **Dimitris Papanikolaou** and Zenovia Toloudi.

Jeongok Prehistoric Museum, South Korea, 2006 (participation in international competition). Conceptualized, designed, and 3D modeled a museum for prehistoric findings consisting of multiple excavated rooms in the natural landscape, sheltered by a tessellated canopy. Project Team: Tasos Biris, **Dimitris Papanikolaou**, Sofia Tsiraki, and Angelos Angelou.

Private Hotel in Dodoni, Greece, 2004 (commission). Developed a design proposal for a 540m² hotel in Dodoni, Greece, securing funding for the client of more than 65% of the project budget by meeting requirements of the Ministry of Tourism and negotiating on design details with the building contractor. Project Team: **Dimitris Papanikolaou**.

10.2 PROFESSIONAL EXPERIENCE AS LICENSED ARCHITECT OR INTERN

ARIS Architects & Consultants, Athens, Greece

Project Architect

2004-2006

Worked on large-scale redevelopment projects such as the **Former Olympic Complex of Phaleron Bay** and the **Metropolitan Park of Hellenikon** in Greece, and on commercial building projects such as the Village Mall, a 14-cinema multiplex in Athens.

SPARCH Architects (Sakelaridou-Papanikolaou Architects), Athens, Greece

Project Architect

2006

Coordinated the landscape design of IASO General, a 55,000-m² private clinic in Larisa, Greece and developed construction details in collaboration with consulting engineers.

Babalou & Noukakis Architects, Athens, Greece

Intern

2002

Developed 3D CAD models and visualizations for a national competition for the Cultural Center of Halicarnassus, Crete, Greece, Summer 2012.

Manolis Pantelidakis Atelier, Athens, Greece

Dimitris Papanikolaou, DDes

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Intern

2000

Revised concepts and detailed stage design commissions for concert halls, music theaters, and performances with acclaimed Greek artists, Spring 2000.

11 MEMBERSHIPS & AFFILIATIONS

11.1 ACADEMIC

Association for Computing Machinery (ACM) (2018-current) • MIT Computational Making Group • Harvard Graduate Consortium on Energy & Environment • Harvard GSD Critical Digital group (leader 2011 - 2012) • MIT Energy Club (2011) • MIT Transportation Club (2009) • MIT Changing Places group (2010 - 2011) • MIT Living Labs group (2010 - 2011) • MIT System Dynamics group (2010) • MIT Smart Cities group (2008 - 2010) • MIT Design Computation group (2006 - 2008) • MOD Fleet Management group (founder-2009) • Fulbright Fellow (2006)

11.2 PROFESSIONAL

National Technical Chamber of Greece (2004) • Licensed architect engineer in EU (2004) • Association of Greek Architects (2004)