

**SPEAKERS’ BIOGRAPHICAL SKETCHES**

**Introductory Remarks**

**Nada Marie Anid, Ph.D.**, is the first female dean of NYIT's [School of Engineering and Computing Sciences](http://nyit.edu/engineering/) (SoECS). In this role, she oversees over 80 engineering and computing sciences faculty members and approximately 3,500 graduate and undergraduate students at campuses located in Manhattan and Old Westbury, N.Y., the Middle East, and China. Dr. Anid embraces NYIT’s forward-thinking and applications-oriented mission. She works on several strategic partnerships between the School of Engineering and the public and private sector, including the creation of the School’s first Entrepreneurship and Technology Innovation Center (ETIC) and its three labs in the critical areas of IT & Cyber Security, Bio-engineering and Health, and Energy and Green Technologies with funding from the U.S. Department of Commerce and the New York Empire State Development.

Anid is committed to educating a new generation of engineers ready to address societal challenges identified through national initiatives including the National Academy of Engineering Grand Challenges for Engineering, and the U.N. Millennium Development Goals. She leads several sustainability education initiatives, such as the NSF-funded project [“A Novel Multidisciplinary, Multi-campus Under-graduate Minor to Enhance STEM Learning in Energy Science, Technology and Policy](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1245943&HistoricalAwards=false).” Anid has also worked diligently to create a common platform for international research collaborations, conferences and joint projects, ranging from a new *Eco Partnership* to address clean water challenges in China, to the “*Pathways for Cleaner Production in the Americas – A Collaborative Approach to Education for Sustainable Industrial Development*,” which includes seven university partners in Latin America, as well as several events, including: the “*NSF Workshop: FEW Nexus in Sustainable Cities*” in Beijing, China (October, 2015); the “*NSF Workshop: Clean Water Matters: Challenges and Research Perspectives*” in Beijing (April 2014); and the *International Conference on Information and Communication Systems*, in Jordan(May, 2011).

Dr. Anid’s own research is in the fields of alternative energy, sustainability, transportation, biotechnology, water quality, and engineering education. Dr. Anid has contributed to NYIT’s global commitment to sustainability. Her publications and presentations include “*Innovation and Entrepreneurship through Industry-Academic Collaborations: A collegiate model for economic development”* (ASEE Proceedings, 2016); the book “Internet of Women: Accelerating Culture Change,” River Publishers (2016); the "Entrepreneurship and Technology Innovation Center: Bringing Together Industry, Faculty, and Students," presented at the Annual Conference of the American Society for Engineering Education, in Atlanta (June 24-27, 2013), among many.

**Session 1: Systems-Based Approaches**

Moderator:

**Marta A. Panero, Ph.D.** is Director for Strategic Partnerships at the School of Engineering and Computing Sciences (SoECS) at NYIT. She works with the school’s Dean to coordinate an Entrepreneurship and Technology Innovation Center and to develop and fund multidisciplinary initiatives. Panero has vast experience coordinating multi-national research and educational initiatives, ranging from the “Eco Partnership for Water Monitoring, Protection and Training” with Peking University, to the “Pathways for Cleaner Production in the Americas” with IIT and s universities in Latin America, integrating business, engineering, and environmental education to provide technically innovative skills training and support the workforce that will implement cleaner production practices in the region. International conferences she has organized include NSF workshops in China, the latest focusing on FEW Nexus in Sustainable Cities. With previous appointments at New York University and the NY Academy of Sciences, her research interests span from sustainable economic development, to industrial ecology, material flow accounting and pollution prevention, greening transportation and freight logistics. Panero received her Ph.D. in economics (economic development and environmental economics) from the New School for Social Research. She graduated Summa cum Laude from Fordham University (BA, social studies).

Speakers:

**Ming Xu**, **Ph.D**., is Associate Professor, School of Environment & Sustainability, University of Michigan, Ann Arbor, MI. Ming Xu received his BS and MS from Tsinghua University, China in 2003 and 2006, respectively, and PhD from Arizona State University in 2009, all in environmental engineering. He was a postdoctoral fellow in Brook Byers Institute for Sustainable Systems at Georgia Institute of Technology from 2009 to 2010. He joined the faculty of University of Michigan, Ann Arbor in 2010. He is now an Associate Professor and Director of China Programs in School for Environment and Sustainability and an Associate Professor in Department of Civil and Environmental Engineering. He received the NSF CAREER award and the Robert A. Laudise Medal by International Society for Industrial Ecology to recognize "outstanding achievement in industrial ecology by a researcher under the age of 36." He serves as Editor-In-Chief of the journal Resources, Conservation & Recycling since 2015. He was recently elected as the President of Chinese Society for Industrial Ecology for 2018.

**Hillary Brown**, FAIA, is Professor and Director of the MS Program in Sustainability in the Urban Environment, at the Bernard and Anne Spitzer Sch. of Architecture, City College of New York, CUNY. She currently directs CCNY’s interdisciplinary master’s program, Sustainability in the Urban Environment, developed by the Spitzer School of Architecture (SSA), the Grove School of Engineering and the College’s Science Division. She teaches ecological thinking within SSA's architectural design studios as well as classes in urban ecology and sustainable infrastructure.  Hillary serves on the Board on Infrastructure and the Constructed Environment (BICE) under the National Academies’ National Research Council and is a Fellow of the Post-Carbon Institute. Her two books, Next Generation Infrastructure (Island Press 2014) and Infrastructural Ecologies, (MIT Press 2017) describe alternative, integrated approaches to infrastructure planning that demonstrate the crosscutting benefits of multipurpose, low-carbon, resilient urban services, better aligned with natural and social systems. As a former Assistant Commissioner, in 1997 Hillary founded New York City’s Office of Sustainable

Design, developing its High-Performance Building and High-Performance Infrastructure Guidelines. Since 2001, her consulting practice, New Civic Works, has engaged public and institutional clients in greening their capital programs.

**Osvaldo A. Broesicke**, E.I.T, Graduate Research Associate, Brook Byers Institute for Sustainable Systems, Georgia Institute of Technology. Osvaldo Broesicke is doctoral candidate working under John Crittenden within the Brook Byers Institute for Sustainable Systems at Georgia Tech. He received his B.S. and M.S. in Civil Engineering from the University of Texas, El Paso. His primary area of focus is urban infrastructure systems, sustainability, and the use of multidimensional decision optimization (MDO) to aid the decision-making in urban developments. He is also interested in decentralized infrastructure systems, policy, and the developing world. Additionally, Osvaldo is an ARCS Scholar, a Sloan Scholar, and serves as a regional representative for MAES – Latinos in Science and Engineering.

Respondent:

**Joshua B. Sperling, Ph.D.**, is an 'Urban Futures and Energy-X Nexus' Engineer at the New Concepts Incubator | Joint Institute for Strategic Energy Analysis | Transportation Center of the National Renewable Energy Laboratory (NREL). He is a former Fulbright Scholar, NSF PIRE Fellow on cities of the US, India and China at the NCAR Urban Futures Program, and completed his PhD in the interdisciplinary Sustainable Urban Infrastructure program at UC-Denver. His research combines engineering, planning, policy, and behavioral science approaches to the nexus of public-private partnerships for delivery and operation of infrastructure systems, smart technology and organizational change in cities. Recent DOE-funded research has focused on a new 'humans-in-the-loop' research capability at NREL, SMART Mobility, and Urban Nexus Science. Recent NSF-funded research has focused on developing infrastructure systems for low-carbon, healthy and resilient cities in the USA, China and India and on 'Sustainable Cities: People, Infrastructures, and the Energy-Water-Climate Nexus'. He has also had invitations to the UN World Energy Forum, UN Habitat, World Bank and UNDP Equator Prize; worked professionally as a civil/environmental engineer and urban planner on complex infrastructure projects at global firm, ARUP; conducted research across multiple built infrastructure sectors and contributed as a coordinating lead author to the urban energy/ infrastructure chapter of the 2nd Assessment Report on Cities and Climate Change.

**Session 2: End-User Perspective: What Stakeholders Want to See**

Moderator:

**Michael Bobker** directs the CUNY Building Performance Lab at the City College of New York and is the Associate Director of the CUNY Institute for Urban Systems.  He has over thirty years of experience in energy efficiency services in NYC buildings.  He has been influential in creating a focus on building operations for achieving sustainability goals, for which he has led training program development and studies of human-machine interfaces and behavior change.  He is a Certified Energy Manager and holds Masters degrees in Anthropology (Oberlin College) and Energy Management (New York Institute of Technology).

Speakers:

**Newsha K. Ajami, Ph.D.,** is the director of Urban Water Policy with Stanford University’s Water in the West program. She specializes in sustainable water resource management, water policy, innovation, and financing, and the water-energy-food nexus. Her research throughout the years has been interdisciplinary and impact driven, focusing on the improvement of the science-policy-stakeholder interface by incorporating social and economic measures and effective communication. Dr. Ajami is a gubernatorial appointee to the Bay Area Regional Water Quality Control Board. Before joining Stanford, she worked as a senior research associate at the Pacific Institute, and served as a Science and Technology fellow at the California State Senate’s Natural Resources and Water Committee where she worked on various water and energy related legislation. She has published many highly cited peer-reviewed articles, coauthored two books, and contributed opinion pieces to the *New York Times* and the *Sacramento Bee*. She was the recipient of the 2005 National Science Foundation award for AMS Science and Policy Colloquium and ICSC-World Laboratory Hydrologic Science and Water Resources Fellowship from 2000 to 2003. Dr. Ajami received her Ph.D. in civil and environmental engineering from the UC, Irvine, an M.S. in hydrology and water resources from the University of Arizona.

**John L. Lee**, Deputy Director, Mayor’s Office of Sustainability, New York City Government. John Lee is the Deputy Director for Buildings and Energy Efficiency at the NYC Mayor’s Office of Sustainability. In this capacity, he is leading the city’s policy and legislative efforts driving the built environment to unprecedented energy efficiency standards in support of the City’s goal to reduce greenhouse gas emissions 80 percent by year 2050. John’s previous public sector service was with the NYC Department of Buildings as Senior Architect in the codes development division, and with the Department of City Planning where he served as an Urban Designer. Prior to city service, John led design teams for architecture and urban design firms in the private sector for institutional clients. He is a New York state licensed architect and a graduate of Rice University and Harvard University.

**Jason Bregman**, Associate, Environmental Planning and Design, Michael Singer Studio

Jason Bregman is a designer and project manager of large scale landscape and infrastructure planning projects. His design work focuses on sustainable design and regenerative systems that help to restore damaged environments. Mr. Bregman has worked closely with Michael Singer Studio since 2000 on projects including parks, infrastructure, community planning, waterfronts, environmental sculptures, commercial buildings, housing, and corporate campuses. In 2005, Mr. Bregman began running Michael Singer Studio South in Delray Beach, Florida. Recent Studio projects include a 40’ tall solar powered biofiltration garden for the Seminole Tribe, Queens Plaza in New York City, coastal urban mangrove planters in Florida funded by the NEA, a $700M waste-to-energy facility in Palm Beach County, Florida, and a 300’ long suspended sculptural landscape at the Austin International Airport. Jason Bregman co-authored *Infrastructure and Community*, a white paper published by the Environmental Defense Fund’s Living Cities Program in collaboration with Michael Singer Studio.

Respondent:

**Dalia Patiño-Echeverri** is Associate Professor at the Nicholas School of the Environment at Duke University, where she studies the economic and environmental impacts of power generation technologies, market rules, and policies affecting capital investment and operating decisions within the electricity industry. She is also adjunct associate professor at the Engineering and Public Policy Department at Carnegie Mellon University and co-principal investigator of the NSF Center for Climate and Energy Decision Making. She received B.S. and M.Sc. degrees in Industrial Engineering from University of The Andes, Bogotá, Colombia and the PhD degree in Engineering and Public Policy from Carnegie Mellon University.

**Session 3. Models and Tools for Understanding the Evolution of Cities and Infrastructures**

Moderator:

**Ziqian (Cecilia) Dong, Ph.D.**, is an Associate Professor in the Department of Electrical and Computer Engineering at New York Institute of Technology (bio under session 5).

Speakers:

**Yimin Zhu, Ph.D.,** is a Professor and holder of the Pulte Homes Endowed Professorship in the Bert S. Turner Department of Construction Management at Louisiana State University (LSU). He actively conducts research in the fields of computer and information sciences and applications, and sustainable construction and education. His research was funded by various agencies including the National Science Foundation, the Department of Energy, Louisiana Transportation Research Center and private foundations. He is a regular speaker at national and international conferences and workshops. He is a member of the editorial board of the International Journal of Construction Management*,* and specialty editor of theJournal of Computing in Civil Engineering. He also served as guest editor for peer-reviewed journals including Energy and Buildings*.*

**Ali Mostafavi, Ph.D.,** is an Assistant Professor at the Zachry Department of Civil Engineering at Texas A&M University. He received his Ph.D. in Civil Engineering at Purdue University in August 2013. Dr. Ali Mostafavi directs the Infrastructure System-of-Systems (I-SoS) Lab. His team investigate resilience and network dynamics at the interface of human and engineered systems and system-of-system by creating novel computational modeling.

**Vatsal Bhatt, Ph.D.**, participates in this workshop as an Expert on Urban Energy and Environmental Modeling on his personal time. He works as a senior energy policy analyst at the Brookhaven National Laboratory. He has worked on various national and international assignments for energy systems analysis and low-carbon development for the U.S. Department of Energy, the U.S. Department of State, the U.S. Environmental Protection Agency, the National Science Foundation, universities, foundations, and international governments. Dr. Bhatt has developed energy-water-climate change systems modeling for long-term national, regional and urban analysis. He has led the USDOE’s U.S.-India-China Cities Partnership for 2007-2014 and provided technical assistance to the governments of India and China and state and local governments on low-carbon urban growth strategies and EcoCity planning and implementation. Dr. Bhatt serves as a senior advisor to US Department of State managed US-China EcoPartnerships Secretariat. In August 2013, the Woodrow Wilson Center for Distinguished Scholars invited him to participate on a five-member panel to facilitate developing China’s Energy-Water Roadmap.  Dr. Bhatt is a lead author of the US Global Change Research Program’s first-ever assessment of the “Effects of Climate Change on Energy Production and Use in the United States”, Synthesis and Assessment Product 4.5.

Respondent:

**Jeffrey Raven, FAIA, LEED BD+C** is Principal of[RAVEN A+U](http://www.jeffraven.com) / Director & Assoc. Professor of the [Graduate Program in Urban + Regional Design](http://www.nyit.edu/degrees/urban_regional_design) at New York Institute of Technology. Jeffrey is a specialist in sustainable and resilient urban design whose research is applied in professional practice and disseminated throughout the profession, government and allied disciplines.  His publications include coordinating lead author of [*Climate Change and Cities*](https://www.cambridge.org/core/books/climate-change-and-cities/9B67F6E6AC73D9D91E8BFCD82A9FBCC1); Planning and Design chapter (Cambridge University Press 2017); [*Shaping Resilient Cities in China, India and the United States*](https://www.peterlang.com/view/9783035295511/back1.html) (P. Lang 2014) and [*Climate Resilient Urban Design*](https://link.springer.com/chapter/10.1007/978-94-007-0785-6_45), Resilient Cities (Springer 2011). Jeffrey is co-chair of the [AIANY Planning & Urban Design Committee](http://aiany.aiany.org/index.php?section=committees&prrid=11).

**Session 4A: Case Studies I: Urban Districts – Food & Water**

Moderator:

**David Nadler, Ph.D.,** is Associate Professor and Chair, Environmental Technology and Sustainability, School of Engineering & Computing Sciences, NYIT. He comes to NYIT after a long tenure as a director within the New York City Department of Environmental Protection. An alumni of the program as well as an adjunct faculty member, Nadler joined NYIT in 2017 as chair of Environmental Technology and Sustainability. He received his Ph.D. in Health Science from Touro University in 2013 and conducted research that modeled allergy development to prenatal antibiotic exposure. His test of the hygiene hypothesis can be applied to any environmental system.

By applying his backgrounds in health science and environmental technology, Nadler focuses on making the Environmental Technology and Sustainability degree truly interdisciplinary. He is focused on showing how proper environmental infrastructure improves the quality of life and health for society. Lastly, he serves as a reviewer for the *Journal of Bioremediation*.

Speakers:

**Weslynne S. Ashton, Ph.D.**, is Associate Professor of Environmental Management and Sustainability at the Illinois Institute of Technology Stuart School of Business. Dr. Ashton’s research focuses on industrial ecology, optimizing water, energy and material resource flows in socio-ecological systems, and business solutions to social and environmental challenges in low income and developing regions. She also examines the adoption of socially and environmentally responsible strategies in small businesses. She utilizes and teaches life cycle assessment, network analysis and entrepreneurial business planning methodologies. In 2012-2015, she led a US Department of State grant “Pathways to Cleaner Production in the Americas” – promoting cleaner production education in universities and implementation in small and medium enterprises across eight countries in Latin America and the Caribbean. Dr. Ashton previously led Yale University’s “Industrial Ecology in Developing Countries” program and held visiting faculty appointments at TERI University in India and the National University of Singapore. Her non-academic professional experience includes consulting on cleaner production, sustainability planning and regional economic development; pollutant fate and risk modeling as an environmental scientist; and launching an IT start-up in Trinidad and Tobago. She has a bachelor’s degree in Environmental Engineering from the Massachusetts Institute of Technology, and master’s and doctoral degrees in Environmental Science from Yale University.

**Adam Hinge** manages Sustainable Energy Partnerships, a small New York based consultancy specializing in energy efficiency program and policy issues, and is involved with a variety of efforts working toward improving building energy performance around the U.S. and globally. His clients include major energy consumers, governments, and multilateral, research, and non-governmental organizations focused on energy and climate issues. He is involved in many international efforts to share best practices globally on building energy efficiency policies and programs. Hinge is also an Adjunct Associate Professor at Columbia University’s Center School of International and Public Affairs, and is an Advisor to the City University of New York Building Performance Lab. Prior to founding Sustainable Energy Partnerships in 1995, Hinge held management positions at Niagara Mohawk Power (now part of National Grid) and the New York State Energy Office.

**Alfred Helble**, owner of AH Consult with seat in Stuttgart (Germany), is a delivery independent international senior environmental expert with more than 30 years of national and international experience in design and build of water and wastewater treatment plants including sludge treatment and sludge utilization in the municipal and industrial water sector. His consulting experience includes the wide range of treatment technologies, risk analyses, energy efficiency, monitoring and data evaluation, approvals and performance tests studies for implementation of new technology as well as for the assessment of environmental emission data compared to BAT rules in order to meet national and international legal requirements. His current focus is on application of advanced treatment, elimination of micro pollutants, treated effluent reuse and energy efficient sludge utilization as well as research projects for innovative and energy-efficient water and wastewater treatment concepts driven by renewable energy sources.

**William (Bill) Solecki**, is Professor, Graduate Geography Advisor, and Founder Director, Emeritus, of CUNY Institute for Sustainable Cities at the City University of New York. Dr. Solecki’s research focuses on urban environmental change, resilience, and environmental transitions. He has served as leader or co-leader of several climate impacts studies in the greater New York and New Jersey region, including the New York City on Panel on Climate Change (NPCC) and the New York State ClimAID report.  He currently serves as the co-PI on the Climate Change Risk in the Urban Northeast (CCRUN) NOAA-funded RISA project which is designed to promote climate risk information for decision-makers and stakeholders in the urban Northeast US. Solecki is the participant on a recently NSF funded, Urban Resilience and Extreme Events (UrEX) Sustainability Research Network. He currently is a coordinating lead author of the IPCC, 1.5°C Special Report, and a lead author on the fourth U.S. National Climate Assessment (NCA4), Northeast Chapter. He is a co-founder of the Urban Climate Change Research Network (UCCRN) and co-editor of the recent Climate Change and Cities Assessment (ARC3) Report.  He also serves as the co-editor of the journals *Current Opinion in Environmental Sustainability* and the *Journal of Extreme Events*.  His Ph.D. is in Geography from Rutgers University.

Respondent:

**Carli Flynn, Ph.D.**, is a Postdoctoral Fellow at the Golisano Institute for Sustainability at Rochester Institute of Technology. She received her B.S. in Biological and Environmental Engineering from Cornell University, her M.S. in Civil and Environmental Engineering from Carnegie Mellon University, and her Ph.D. in Civil Engineering from Syracuse University. Dr. Flynn’s research utilizes inter- disciplinary methods to analyze sustainability challenges related to environmental planning and decision making. Her dissertation work investigated municipal strategies for developing sustainable storm water management programs, and students’ conceptual understanding of sustainable system principles. This work was awarded Syracuse University’s 2017 Chancellor’s Citation for Excellence in Student Research, which recognizes collaborative research that has the potential to make a deep and lasting impact on society.

**Session 4B: Case Studies II: Urban Districts - Energy**

Moderator:

**Ursula Eicker**, Ph.D., Professor, University of Applied Sciences, HTF, Stuttgart, Germany (see bio under session 5)

Speakers:

**Roberto Rojas Cessa, Ph.D.**,Professor, Electrical and Computer Engineering, Newark College of

 Engineering

Roberto Rojas-Cessa is a Professor in the Department of Electrical and Computer Engineering (ECE), New Jersey Institute of Technology (NJIT). His research interests are in the nature of networking and energy. He authored the books “Interconnections for Computer Communications and Packet Networks,” CRC Press, 2017, and “Advanced Internet Protocols, Services, and Applications,” Wiley and Sons, 2012. He serves in different capacities for IEEE conferences and journals, and as a panelist for U.S. National Science Foundation and U.S. Department of Energy. He is the recipient of the Excellence in Teaching Award 2013 from the Newark College of Engineering at NJIT, and a recipient of New Jersey Inventors Hall of Fame - Innovators Award in same year. He is the director of several MS programs at NJIT and the coordinator of Networking Research Focus Group at ECE in NJIT.

**Ahmed Mohamed, Ph.D.**, is an Assistant Professor at the Department of Electrical Engineering, CCNY, and the founding director of the CUNY Smart Grid Laboratory. He received the PhD degree in Electrical Engineering from Florida International University in 2013. His current research interests include Power Grid Resilience, Microgrids, Critical Infrastructures Interdependencies and Traction Power Systems. He currently leads multiple research projects that are funded by local companies and national funding agencies (e.g., the National Science Foundation). He has more than 70 publications as book chapters, and articles in premier journals and conference proceedings, and several of his papers received prestigious IEEE best-paper awards.

**Yixing Chen, Ph.D.**, is a Senior Scientific Engineering Associate with the Building Technology and Urban Systems Division. He currently focuses on urban system researches, including 3D city data models, city data analytics, and urban scale building energy modeling and retrofit analysis. He is the Lead Developer of the City Building Energy Saver (CityBES), a web-based platform to support the urban system researches. He also let the development of Commercial Building Energy Saver (CBES), a web-based tool for energy benchmarking, electric load shape analysis, and preliminary and detailed retrofit analysis using OpenStudio and EnergyPlus simulations. He also works on occupant behavior research to evaluate the impacts of occupant behaviors on building energy performance. He received his Ph.D. from Syracuse University in USA, Master degree from National University of Singapore, and Bachelor degree from Tsinghua University in China.

Respondent:

**Michael Bobker**, CIUS and BPL, City College of NY, CUNY (bio under session 2).

**Session 5: City Data and Urban Informatics** (2:15 – 3:45 pm)

Moderator:

**Roberto Rojas Cessa, Ph.D.**,Professor, Electrical and Computer Engineering, Newark College of Engineering (see bio under session 4.b)

Speakers:

**Ziqian (Cecilia) Dong, Ph.D.**, is an Associate Professor in the Department of Electrical and Computer Engineering at New York Institute of Technology. Her research interests include computer networks and network security, wireless sensor networks and assistive medical devices. Her recent work has focused on integrating technology, such as autonomous sensing and sensing network, to provide real-time environmental data and data analytics for sustainable development. She is the principal investigator for the NYIT Research Experience for Undergraduates (REU) site funded by the U.S. National Science Foundation (NSF) to engage undergraduates in mobile device and network security research. She also serves as faculty mentor for the Society of Women Engineer NYIT student chapter, is a senior member of the IEEE Communications Society, IEEE Women in Engineering, and a member of the American Society for Engineering Education (ASEE), ACM, and the Environmental Sensing, Networking and Decision-Making (ESND) technical committee. She served as the general chair of the 37th IEEE Sarnoff Symposium and served in technical program committee of IEEE HPSR, IEEE Sarnoff, IEEE GreenCom and ChinaCom, and as a reviewer for IEEE journals, conferences and NSF panels.

**Ursula Eicker, Ph.D.**, Professor, University of Applied Sciences, HTF, Stuttgart, Germany. Prof. Eicker is a physicist, who carries out international research projects on energy efficient cities and renewable energy supply systems at the Stuttgart University of Applied Sciences since 1993. A main research field of the last years is the development of 3D urban simulation tools, which can be used for urban energy planning. Building simulations on an urban scale are combined with renewable supply options, automated district heating and cooling network planning and urban shading analyses for solar potential simulation. Since 2002 she is the scientific director of the research centre sustainable energy technologies (zafh.net) in Baden Württemberg with 35 research scientists. She also heads the Institute of Applied Research of the University of Applied Sciences in Stuttgart, where more than 70 building physicists, geoinformation scientists, mathematicians, civil engineers and architects cooperate on sustainable urban systems and innovative technologies for industry.

During the last fifteen years she coordinated numerous research projects on sustainable energy plants and buildings. Prof. Eicker recently managed an integrated European demonstration project on sustainable communities with 18 partners and a total budget of 17 million Euros and a Marie Curie graduate school on urban energy management. She is currently coordinating a Marie Curie PhD school on smart cities and a Horizon 2020 project on demand side management of blocks of buildings with many European University and Industry partners such as EDF, Siemens and others. Prof. Eicker is the head of a large research network on urban energy systems and ressource efficiency in the state of Baden Württemberg, bringing together researchers, SME´s, energy supply companies and industry.

She has published over 50 peer reviewed papers and 5 books as well as more than 250 conference papers.

**Michael Flaxman,** Founder and CEO, Geodesign Technologies Inc. and a faculty member of Penn State University.  Dr. Flaxman's primary research interest is in participatory tools for spatial simulation modeling as applied to the planning and design of cities and regions. He has previously served on the faculties of MIT, Harvard and the University of Oregon. Dr. Flaxman has practiced GIS-based planning in 17 countries, including one year as a Fulbright fellow in Canada. Dr. Flaxman previously served as industry manager for Architecture, Engineering and Construction at ESRI, the world’s largest developer of GIS technology. Dr. Flaxman received his doctorate in design from Harvard University in 2001 and holds a master’s in Community and Regional Planning from the University of Oregon and a bachelor’s in biology from Reed College.

**Masoud, Ghandehari,** **Ph.D.**, is Associate Professor, Civil and Urban Engineering; Center for Urban Science and Progress, Tandon School of Engineering, at New York University. He received his academic training at Columbia, McGill and Northwestern Universities. His research is focused on the application of advanced instrumentation and data analysis. Through the application of sensing, correlative data, and system assessment, he is developing methodologies that generates multi-scale data on the physical, environmental and human systems. This work is aimed at developing novel approaches for understanding the condition, interdependencies, and well-being of cities and their inhabitants. Working with the industry, local agencies, and federal governments, this research has led to technologies and applications suitable for diverse environments ranging from the materials to urban scales.

**Andrew Parker**, Researcher III, Mechanical Engineering, National Renewable Energy Lab. Andrew is an engineer in the NREL Commercial Buildings Group. His goal is to help make high-efficiency building design commonplace by improving existing energy analysis tools and making new tools for new markets. Current projects include work on urban district modeling (URBANopt) and national scale building stock modeling (ComStock).  Other projects include improved tools for whole-building energy modeling (OpenStudio), energy auditing (simuwatt Energy Auditor mobile energy auditing tool), and utility design assistance programs (EDAPT).

Respondent:

**Brunilde Sansò, Ph.D.**, is a full Professor of Telecommunication Networks in the Department of Electrical Engineering of the École Polytechnique de Montréal. She is also a member of GERAD, a world-renowned optimization research center. She has more than 25 years of experience in telecommunication network optimisation, reliability, performance and design. She is the director of the LORLAB, a research group dedicated to developing effective methods for the design and performance of wireless and wireline telecommunication networks. In the latest years, her group has been particularly interested on green networking and on performance and robustness of the Internet of Things and smart-cities infrastructure. Professor Sansò has a Ph.D in Applied Mathematics and Master and Baccalaureat degrees in Electrical Engineering. She has published extensively in the Telecommunication Networks and Operations Research literature and has been a consultant for many telecommunication operators, equipment and software manufacturers, as well as for the mainstream media. Over the years, she has been the recipient of several prizes and distinctions and she has been part of government as well as technical international committees. She was a long-term Associate Editor of Telecommunication Networks and co-editor of the books *Performance and Design Methods For the Next Generation Internet*  and *Telecommunications Network Planning.*