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THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

June 12, 2014

DoubleTree Hotel Birmingham | 808 – 20th Street South | Birmingham, AL 35205 USA



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- College of Arts and Sciences
- Minority Health & Health Disparities Research Center
- School of Business
- School of Engineering
- School of Medicine
- School of Public Health
- Facilities



Event hosted by:



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TIME	TOPIC
7:30 am	REGISTRATION
8:00 am	<p>WELCOME AND UPDATES</p> <p>The Honorable William Bell Mayor, City of Birmingham</p> <p>Linda Lucas, PhD Provost, University of Alabama at Birmingham</p> <p>Fouad H. Fouad, PhD Director, UAB Sustainable Smart Cities Research Center</p>
8:30 am	<p>REVERSING SHRINKING CITIES, POPULATION DECLINE AND URBAN VACANCY</p> <p>Joseph Schilling, JD Director, Metropolitan Institute Virginia Tech</p>
9:00 am	<p>SUSTAINABLE SMART CITIES: WHAT'S HAPPENING IN EUROPE?</p> <p>John Adlen Director, Office of Sustainability, Staffordshire University, United Kingdom</p>
9:30 am	<p>SMART URBAN PLANNING, SMART BUILDINGS, SMART OBJECTS</p> <p>Irene Rojo de las Heras LVA Luis Vidal + Architects, Spain</p>
10:00 am	BREAK
10:15 am	<p>SYNCHRONIZED CITIES: LEVERAGING SENSORS TO OPTIMIZE URBAN ACTIVITY</p> <p>Jennifer Dunnam, M.Arch Senior Interaction Designer, Frog Design</p>
10:45 am	<p>THE INTERNET OF EVERYTHING: CONNECTING PEOPLE, PROCESS, DATA AND THINGS</p> <p>Horacio Werner, PhD Senior Director, Office of Strategy and Business Development and Internet of Everything, Cisco</p>
11:15 am	<p>SOCIAL AND ETHICAL IMPLICATIONS OF SMART CITY SOLUTIONS</p> <p>Michelle Cullen IBM Smarter Cities</p>
11:45 pm	<p>SUSTAINABLE URBAN MOBILITY</p> <p>Eduardo Behrentz, PhD Dean, School of Engineering, Universidad de los Andes, Colombia</p>
12:15 pm	LUNCH

TIME	TOPIC
1:00 pm	<p>KEYNOTE ADDRESS</p> <p>COMPLETE STREETS: THE TRANSITION TO SAFE AND INCLUSIVE TRANSPORTATION NETWORKS</p> <p>Barbara McCann Director, Office of Safety, Energy and Environment Office of the U.S. Secretary of Transportation</p>
2:00 pm	<p>PANEL DISCUSSION: TRANSPORTATION AND ECONOMIC DEVELOPMENT</p> <p>MODERATOR:</p> <p>Eric Jack, PhD Dean, UAB COLLAT School of Business</p> <p>PANELISTS:</p> <p>Charles Ball Executive Director, Regional Planning Commission of Greater Birmingham</p> <p>Eduardo Behrentz, PhD Dean, School of Engineering, Universidad de los Andes, Colombia</p> <p>Barbara McCann Director Office of Safety, Energy and Environment, Office of the U.S. Secretary of Transportation</p> <p>Bill Taylor President, Economic Development Partnership of Alabama</p> <p>Henry Ikwut-Ukwa, PhD, PE Manager Planning & Development, Birmingham Jefferson County Transit Authority</p>
3:00 pm	<p>CLOSING REMARKS: OPPORTUNITIES AT UAB SUSTAINABLE SMART CITIES RESEARCH CENTER</p> <p>Fouad H. Fouad, PhD Director, UAB Sustainable Smart Cities Research Center Chair, Department of Civil, Construction and Environmental Engineering</p>
3:30 pm	ADJOURN

Scientific Planning Committee

**Ann August (BJCTA/MAX) Lowell Christy (Cobb/Christy) Fouad Fouad, PhD (UAB)
Craig Fleming (DUNN Construction) Jerry Jones (Arcadis) Tony Smoke (Alabama Power) Andrew Sullivan (UAB)**

The UAB Sustainable Smart Cities Symposium is an annual forum designed to keep stakeholders in the Birmingham community - as well as scientists at UAB and other academic institutions across the region - at the forefront of urban sustainability and development. The symposium works hand in hand with other programs at UAB and partner institutions to encourage investigators to *Advance the Science of Cities*. **Thank you for your participation and support.**



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Barbara McCann

Director, Office of Safety, Energy & Environment
Office of the U.S. Secretary of Transportation



Keynote Address

June 12, 2014

DoubleTree Hotel

808 20th Street South, Birmingham, AL 35205

Barbara McCann was appointed in January 2014 to oversee the strategic planning of the U.S. Department of Transportation, and work in Departmental policy on performance management and program evaluation in the areas of safety, livability and sustainability. She manages a staff that provides a source of technical expertise for the Department's legislative, regulatory, and research programs and technical reviews involving issues ranging from pedestrian safety to climate adaptation.

Prior to joining the USDOT, she founded and led the National Complete Streets Coalition in order to strategically address the need to create a safer and more inclusive transportation network. She engaged groups ranging from AARP to YMCA in working to ensure that roads are routinely designed, built, and operated for the safety of everyone using them. Under her direction, the Coalition spawned a movement and influenced the passage of hundreds of Complete Streets policies at the local, regional, and state level. McCann has co-authored and edited several books on built environment and transportation investment issues, as well as numerous articles for transportation planning magazines and journals.

Her book *Completing Our Streets: The Transition to Safe and Inclusive Transportation Networks*, published in 2013, is about the keys to the movement's success, and about the transportation practitioners who are using these key strategies in communities across the United States.

She is the recipient of the 2011 Transportation Advancement Award from the NY/NJ Met Section of the Institute of Transportation Engineers, which recognizes the contributions of a non-engineer to the field.



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John Adlen

Director, Sustainable Futures Lab, Staffordshire University, United Kingdom

The Sustainable Futures Lab is a cross-faculty and multi-disciplinary research group and open innovation platform that brings together the University's sustainability and urban regeneration research expertise to work with local policy makers, business and industry, civil society and professional practitioners to identify, create, test and share new sustainable knowledge and innovations. John's main research interests lie in smart and sustainable cities, urban governance and urban regeneration. He is also the Director of the Office of Sustainability, where he is responsible for leading the University's sustainability programs including applied research and consultancy, curriculum development and improving the sustainability of the University's campus systems.



Charles Ball

Executive Director, Regional Planning Commission of Greater Birmingham

Charles Ball is a native of Birmingham. He received a BA in Business Administration from Birmingham-Southern College and a Master of Community Planning from Auburn. Charles has worked in various planning positions in Auburn, AL, Albany, GA, Gadsden, AL, and Birmingham, where he has served as the Executive Director of the Regional Planning Commission of Greater Birmingham since 2006. Charles is also active with several nonprofit organizations in the region.



The Honorable Mayor William A. Bell, JD

Mayor, City of Birmingham

William Bell was sworn in as Birmingham City Mayor on January 26, 2010 and re-elected on August 2013. He was also the first African-American President of the Birmingham City Council, elected in 1985. He was again chosen as Birmingham City Council President in 1987 and 1997. As one of the longest serving public officials in the City of Birmingham, Mayor Bell is responsible for the first Hope VI Project in downtown Birmingham that transformed a local inner city housing development into an affordable, mixed housing community. Mayor Bell holds a Doctorate in Jurisprudence from Miles Law School, with extensive professional experience in community and economic development in both the public and private sectors. Mayor Bell is also an alumni of the University of Alabama at Birmingham.



Eduardo Behrentz, PhD

Dean, School of Engineering, Universidad de los Andes, Colombia

Dr. Eduardo Behrentz is Dean of the School of Engineering at Universidad de los Andes (Bogota, Colombia), where he has been director of the Department of Civil and Environmental Engineering and Director of the Environmental Engineering Research Center. He was the first director and founder of the Centre of Studies on Urban and Regional Sustainability in the same institution. He holds a Ph.D. in Environmental Science from the University of California, Los Angeles (UCLA). Behrentz is recognized as a leading expert in environmental urbanism in Colombia. He is an opinion-editorial writer for several national newspapers in Colombia and has published several peer-reviewed journal articles and books related to urban matters.



Michelle L. Cullen

IBM Smarter Cities

Michelle Cullen currently focuses on Smarter Cities thought leadership for IBM, where she has also worked on innovation within emerging markets and public sector consulting. Before joining IBM, Michelle spent a decade as an international development practitioner, specializing in post-conflict reconstruction with the World Bank. She is currently pursuing her PhD with the London School of Economics' Cities Programme and is a Visiting Smarter Cities Fellow at Virginia Tech's Metropolitan Institute.



Jennifer Dunnam, M.Arch.

Senior Interaction Designer, Frog

Jennifer Dunnam works with an interdisciplinary team to research and develop innovative products, services, and experiences for today's leading organizations, and emerging start-ups. Prior to Frog, Jennifer was a project leader at MIT's Senseable City Lab where she designed and implemented radical visions for the future of cities based on digitally connected infrastructures.

Jennifer has a master's degree in Architecture from MIT. Her work has been exhibited at the Venice Biennale, MoMA, and Singapore Art Museum. Her writings on design and technology have been published by Fast Company, The Architectural League of New York, and MIT Press.



Fouad H. Fouad, Ph.D.

Director, UAB Sustainable Smart Cities Research Center

Dr. Fouad Fouad is Professor and Chairman of the Civil Engineering Department at the University of Alabama at Birmingham (UAB) and Director of the UAB Sustainable Smart Cities Research Center. He teaches and conducts research in the area of reinforced concrete structures and concrete materials, and has published numerous technical papers in the field. His research efforts have led to the development of national standards and specifications for a number of sustainable green concrete products and building systems. Dr. Fouad's research expertise in green materials and construction methods has a global perspective. He has held three National Science Foundation (NSF) workshops in Cairo, Egypt on Sustainable Green Building design and Construction.



Henry Ikwut-Ukwa, PhD, PE

Manager Planning & Development

Birmingham Jefferson County Transit Authority

Dr. Henry Ikwut-Ukwa is a transportation professional with over 15 years of experience in transit, consulting, and academia. Before joining BJCTA in April 2013, he served for five years as Manager of Transit System Planning at the Metropolitan Atlanta Rapid Transit Authority (MARTA) where he led several projects including managing the Atlanta Beltline EIS, the Memorial Drive Bus Rapid Transit implementation, and held major roles in the Breeze Smartcard fare collection system conversion.

Henry holds a PhD in Civil Engineering with minor in Public Policy from the Georgia Institute of Technology, a master's degree in Environmental Engineering from the University of Oklahoma, and a bachelor's degree in Civil Engineering from the University of Ibadan.



Eric P. Jack, Ph.D.

Dean, UAB COLLAT School of Business

Dr. Eric Jack earned a bachelor of science degree in industrial engineering from Georgia Tech, a master of business degree from Wright State University and a doctorate from the University of Cincinnati in operations management.

Jack served 21 years as an officer in the United States Air Force. He is a member of the Academy of Management, Decision Sciences Institute, Production and Operations Management Society and Association for Operations Management.



Linda C. Lucas, PhD

Provost, University of Alabama at Birmingham

Linda C. Lucas became provost of UAB in April 2012 after serving in that interim role since May 2011. She served as dean of the School of Engineering from 2000 to 2011. Lucas joined the UAB faculty in 1982 as an assistant professor and was named department chair of biomedical engineering in 1995. She is a senior scientist in the Center for BioMatrix Engineering and Regenerative Medicine and the Center for Metabolic Bone Diseases. She also holds joint appointments in the Department of Materials Science and Engineering and several departments within the School of Dentistry.

Lucas holds a bachelor's of science in mathematics and chemistry from the University of Alabama; she also earned bachelor's and master's degrees in engineering, a master's of science in mathematics, a master's of arts in education, and a Ph.D. in biomedical engineering from UAB.



Irene Rojo de las Heras

Architect, LVA Luis Vidal + Architects, Europe

Architect by the Superior Technical School of Architecture of Madrid 2004. Irene Rojo de las Heras is a key Architect at luis vidal + architects (LVA) since joining the practice in 2007. In 2011 she was promoted to Project Director, as well as becoming a Founder of LVA's Green Group; Irene is responsible for implementing responsible as well as sustainable measures, green architecture, LEED and BREEAM certifications in all projects at luis vidal + architects. As a professional Architect she has contributed to a wide array of projects, ranging from masterplanning, public buildings, including offices, commercial, educational and transportation, such as Garellano Master Plan, Abengoa headquarters, Fuel Cell and Research Laboratories, Botín Arts Centre and Gerona Airport Control Tower. In these projects she also worked at the implementation of sustainable measures, achieving outstanding environmental certifications and awards, such as LEED Platinum and BREEAM Excellent. Her international experience in various architecture offices in Sydney, Barcelona and Madrid, as well as the Superior Technical School of Architecture of Madrid, provides her with problem solving and mentoring skills, allowing her to guide up down peers through listening and analyzing, ranging from global to micro scales and complete high quality sustainable projects, delivered on-time and on-cost.



Joseph Schilling, J.D.

Director, Metropolitan Institute at Virginia Tech

Professor Schilling leads the Metropolitan Institute's Sustainable Communities Initiative that investigates innovative ways of creating eco-sustainable neighborhoods and regions through better design, planning, and collaboration. His research and technical assistance field work has led to several articles about how sustainability can facilitate the regeneration of older industrial communities.

In "Greening the Rust Belt" for the 2008 *Journal of the American Planning Association (JAPA)* Schilling and Logan set forth a new planning model for reconfiguring cities confronting the challenges of urban decay and disinvestment. Schilling's chapter on the *Living Laboratory of Revitalization in Cleveland's Urban Design Collaborative Cities Growing Smaller* provided a holistic framework for federal and state urban policy that served as the foundation for the Community Regeneration Sustainability and Innovations Act of 2009. In August 2010 Schilling received a grant from the Ford Foundation to develop a trans-disciplinary research and policy agenda on vacant property reclamation and urban regeneration to support the policy and technical assistance work of practitioners, policymakers and organizations.



Bill Taylor

President, Economic Development Partnership of Alabama

Following a successful career in the automotive industry that spanned 38 years, Bill Taylor accepted a new role as President of the Economic Development Partnership of Alabama on July 1, 2009. Prior to joining EDPA, Taylor was President and CEO of Mercedes-Benz U.S. International. A native of London, Ontario, Taylor came to Alabama when MBUSI located in the state in 1993. He was a key figure in the start-up of the new plant, led production for five years and became president of the company in 1999. Taylor was instrumental in the establishment of the Mercedes Production System, which is now a global standard for all Mercedes-Benz plants in achieving the highest levels of quality and efficiency. Taylor oversaw the plant's \$600-million expansion, which was completed at the end of 2004, as well as the beginning of a \$300-million expansion underway to prepare for successor models.



Horacio Werner, Ph.D.

**Senior Director, Office of Strategy and Business Development
Emerging Countries and Internet of Everything, Cisco**

Dr. Werner leads Cisco's Emerging Markets Field Engagement Strategy and Business Development.

As such he is responsible for the strategy of the next wave of businesses including the understanding of the impact of major transformational transitions like the relevance of technology in the economic development, smart and connected communities.

He graduated from University of Buenos Aires, Argentina and earned his Ph.D. (*Magna Cum Laude*) in Sciences from the LMU University of Munich, Germany. He also earned a diploma in International Development from the University of Berlin, Germany and a Masters Degree in Environmental Sciences from the University of Navarra, Spain. He is fluent in English, German, Italian, Portuguese and Spanish.

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U.S. Department of Transportation Research and Innovative Technology Administration

The Research and Innovative Technology Administration (RITA) coordinates the U.S. Department of Transportation's (DOT) research programs and is charged with advancing the deployment of cross-cutting technologies to improve our Nation's transportation system. As directed by Congress in its founding legislation, RITA leads DOT in: Coordinating, facilitating and reviewing the Department's research and development programs and activities; Advancing innovative technologies, including intelligent transportation systems; Performing comprehensive transportation statistics research, analysis and reporting; and Providing education and training in transportation and transportation-related fields. RITA brings together important data, research and technology transfer assets of the Department of Transportation.



U.S. Department of Transportation
Research and Innovative Technology Administration

National Center For Transportation Systems Productivity and Management (NCTSPM)

National Center for Transportation Systems Productivity and Management (NCTSPM) is a Tier 1 University Transportation Center (UTC). Funded by the US Department of Transportation (USDOT) Research and Innovative Technology Administration (RITA), NCTSPM is a collaboration between Georgia Institute of Technology, Georgia Transportation Institute, Florida International University, University of Central Florida, University of Alabama at Birmingham, and each university's state Department of Transportation.



UAB Sustainable Smart Cities Research Center (SSC)

The Sustainable Smart Cities Research Center (SSC) at the University of Alabama at Birmingham (UAB) is an enabling platform for interdisciplinary collaboration to understand and transform the impact of urbanization at the scientific, economic, and human levels.

UAB's contribution to sustainability derives from the university's unique capabilities to generate new knowledge and cutting-edge science. Through the Sustainable Smart Cities Research Center (SSC), UAB acts as an engine of innovation that can transform the community by developing smart technologies and information systems, better transportation models, green construction, renewable energy, and sustainable environment, which results in increased economic development, healthier workforce, and better quality of life for all. Such innovation-based growth will lead to societal transformation, and UAB is proud to be at the forefront of this process, leading the way to the future.





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Master's of Engineering in Sustainable Smart Cities ONLINE

The Master's in Sustainable Smart Cities, offered jointly by the University of Alabama at Birmingham, USA, and Staffordshire University in the United Kingdom, starts in January 2015.

If you are interested in this program, please complete the online survey at www.uab.edu/smartcities/training



Sustainable Smart Cities Research Center

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UAB SUSTAINABLE SMART CITIES RESEARCH CENTER
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Advancing the Science of Cities

The Sustainable Smart Cities Research Center at the University of Alabama at Birmingham is an enabling platform for interdisciplinary collaboration to understand and transform the impact of urbanization at the scientific, economic, and human levels.

Training

- Develop specialized workforce to understand and transform cities and communities.
- Train researchers and leaders in the community, to advance the Science of Cities and sustainability in the urban setting.

Research

- Contribute to the development of the new Science of Cities by promoting interdisciplinary research.
- Understand the dynamics and impact of the built environment and technologies in the efficiency of cities and the quality of life of communities.
- Maximize the potential of cities as engines of economic prosperity, intellectual development and human wellbeing

Outreach

- Educate the urban community on sustainable smart cities.
- Engage citizens in transforming their built environment - places where they live, study, work and play - by actively participating in the center's research and education programs.
- Empower individuals with knowledge to transform the livability of their environment and improve the health of their communities.

News

UAB, Birmingham partner to create smarter, healthier city ideas (Davos: The Science of Cities (video))

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UAB Sustainable Smart Cities Research Center 10-year-old boy launches his own recycling business and donates 25% of profits to homeless children http://bit.ly/1XEWJ0C

UAB Sustainable Smart Cities Research Center shared Sustainable Cities Collective's photo.

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