



cycloneENERGYgroup

5TH ANNUAL INNOVATION RODEO

All it took was a Pandemic:

Innovations That Are Changing How We Design, Build and Inhabit Buildings

Module 3: Indoor Air Quality Planning & Management

Thursday, September 24

10:30am - High Noon

While our building codes and policies slowly take steps towards reducing energy, occasionally innovators take giant leaps.



Rob Rottersman

Principal, Ramboll

Rob Rottersman has over 20 years of experience performing chemical and biological exposure assessments. He is a certified industrial hygienist and has a master of science degree specializing in epidemiology. Mr. Rottersman is currently working with international corporations, building managers, schools, a major international airport and restaurant chain to develop plans for response and continued operation during the COVID-19 pandemic. He is also part of a team of experts assembled by the American Industrial Hygiene Association tasked with developing and publishing guidelines for reducing the risk of disease transmission in the workplace. Rob is currently a consultant with Ramboll, and international consulting and engineering firm, where he is global leader of the Occupational and Building Health practice area.



Duncan Phillips

Principal, RWDI

Duncan Phillips, is a Global Practice Leader for CFD, Building Performance and Ventilation at RWDI, a global engineering firm, based in Guelph, Ontario, that has offered environmental consulting services to the built industry for five decades. For more than twenty years, Duncan has consulted on the science of buildings, structures and the environment. His academic training in measuring and analyzing the mixing of air within rooms has directly applied to his work designing ventilation systems that provide better air quality and thermal comfort to occupants. A dynamic speaker, Duncan regularly presents at conferences and universities, while also leading in-demand webinars on the topics related to building performance, air flow and ventilation. As a Global Practice Leader in building performance and ventilation, he has developed climate-responsive design strategies for individual buildings and masterplans around the world. He has optimized the design of ventilation systems in schools, laboratories, stadiums, operating rooms, concert halls, and transit stations, among others. Through this work, he has gained a unique understanding of how air distribution in a room can directly influence exposure to contaminants.

[more Module 3 speakers on the next page](#)



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William Bahnfleth

Professor of Architectural Engineering, Penn State University

William Bahnfleth is a professor of architectural engineering at the Pennsylvania State University. He held previous positions as Senior Consultant for ZBA, Inc. in Cincinnati, OH and Principal Investigator at the U.S. Army Construction Engineering Research Laboratory in Champaign, IL. He holds BS, MS, and PhD degrees in Mechanical Engineering from the University of Illinois and is a registered professional engineer. At Penn State, Dr. Bahnfleth teaches undergraduate courses in HVAC fundamentals and system design, and graduate courses in district cooling systems and indoor air quality. His research interests cover a wide variety of indoor environmental control topics including chilled water pumping systems, stratified thermal energy storage, protection of building occupants from indoor bioaerosol releases, and ultraviolet germicidal irradiation systems. He is the author or co-author of more than 170 technical papers and articles and 14 books and book chapters. Dr. Bahnfleth is a fellow of ASHRAE, the American Society of Mechanical Engineers (ASME) and the International Society for Indoor Air Quality and Climate (ISIAQ). He served as President of ASHRAE in 2013-2014. His ASHRAE honors include the Louise and Bill Holladay Distinguished Fellow Award, E.K. Campbell Award, and F. Paul Anderson Award. He is also a recipient of the Penn State Engineering Alumni Society's World-Class Engineering Faculty Award.



Emmy Riley

Energy Engineer, Cyclone Energy Group

As an Energy Engineer, Emmy provides analytical and consulting services for clients in the development of high performance buildings. She works primarily with existing buildings, leading retro-commissioning projects and energy audits, as well as performing technical analyses for energyPLAN clients. Prior to joining the Cyclone team, Emmy was a Building Energy Coordinator at SEDAC, an applied research program at the University of Illinois at Urbana-Champaign. Over the course of five years there, she managed energy assessment, retro-commissioning, and new construction design assistance projects, primarily for public sector buildings. Prior to SEDAC, she worked as a Process Improvement & Implementation Consultant at Crowe Horwath, LLP. A native of Pittsfield, Illinois, Emmy graduated from the University of Illinois Urbana-Champaign with a Bachelor of Science in General Engineering. She also earned a Master of Energy Engineering from the University of Illinois Chicago. She has been recognized as a Certified Energy Manager™ by the Association of Energy Engineers since 2013, and as an ASHRAE Building Energy Assessment Professional since 2016. In 2018, one of her projects was ComEd's RCXpress Project of the Year, for achieving the most energy savings of any retro-commissioning project in its category.

Cyclone Energy Group

2020 Notable Achievements

LEED and Green Globes Certifications

Pullman Community Center LEED v2009 NC Certified
William Blair NYC LEED v4 CI Silver Certified
1201 West Lake LEED v2009 CS Gold Certified
Belmont Village Lincoln Park LEED v2009 NC Gold Certified
Old Main Post Office LEED v2009 CS Gold Certified
Albion Oak Park LEED v2009 NC Silver Certified
Knoll-Fulton Market LEED v4 CS Gold Certified
NEMA Chicago LEED v2009 NC Silver Certified
Project Jupiter LEED v4 Warehouses and Distribution Centers Certified
Albion Evanston LEED v2009 NC Silver Certified
One South Wacker LEED EBOM Gold
President's Plaza LEED EBOM Gold
14th & Wabash 2 Green Globes

ComEd Utility Incentives

Cyclone assisted clients in earning more than \$400,000 in ComEd incentives.

Retro-Commissioning

Central Park of Lisle 160% of estimated savings target
CICS Ralph Ellison 400% of estimated electric and natural gas savings target
939 W North Ave 190% of estimated savings target
Wheaton College 160% of estimated savings target

Special Projects

680 N LSD RFP and CM for 1,000 ton chiller, overall chiller plant optimization
4 E Elm Domestic hot water issues problem solving

Personal & Professional Achievements

Robert Rugala joined the Cyclone Team as Senior Commissioning Project Manager
Paul Blair was promoted to Director of Finance
Karl Walsh and Sumayyah Theron earned Fitwel Ambassador Designation
Karl Walsh was promoted to Building Analyst II
Kelly Majewski was promoted to Energy Engineer II
Allen Mei received his C.E.M. from the Association of Energy Engineers
Aaron Kachler earned LEED AP Accreditation

Energy Modeling

Our energy modeling team has completed 102 modeling projects; some of which have earned Green Globes, ENERGY STAR and LEED Certification.