

INNOVATIVE ENVIRONMENTAL **SOLUTIONS IN OUR NEW WORLD AN AECOM ENVIRONMENTAL WEBINAR SERIES APRIL WEBINARS**

Thursday, April 8, 2021 (1:00 PM EDT) eMAP – Future-Forward Data Collection, Reporting & Analysis

OUR SPEAKERS: MATTHEW NANNEY & TAREQ ADHAM



MATTHEW NANNEY, GISP, RPA. Matthew has over 15 years of experience in the applications of Enterprise GIS, mobile data collection, GPS solutions, data analysis, statistical/geospatial analysis, surveying, archaeology, ArcGIS Server, and enterprise database management. He has served as the GIS Mobile Technology and UAS Manager in all aspects of GIS data mobile data collection, data science and analysis, geoprocessing, linear referencing, modeling, photogrammetry, and geostatistical analysis.

TAREQ ADHAM. Mr. Adham is the Mobile Solutions Lead for the Digital Services Department in the Morrisville, NC office. He has over 10 years of experience utilizing applications for data visualization and streamlining mobile data collection. Technical applications and software support includes: Collector, Field Maps, Survey123, ArcGIS, ArcGIS Online, Access, Power Automate, Power BI, Tableau, Fulcrum, SQL and EQUIS. Technical GIS support include statistical analyses, data acquisition, linear referencing, database management, mobile form development, report generation, data analytics and dashboard development.

eMAP (Environmental Mobile Applications for Projects) is not just a suite of well-programmed software(s); it's a scalable solution of process controls and best practices. Field users have access to large sets of GIS and other datasets for GPS data collection. This allows them to make informed decisions as well as generate digital forms with photos in the field without relying on internet connectivity. Those datasets are synchronized and shared via web applications, dashboards for compliance tracking, and through automated reporting that match regulatory report templates.

AECOM's current build of eMAP is a future-forward system for ArcGIS Online, but deployed and managed separately than our internal company resources by AGOL. This is to ensure quality and efficiency for field deployments and inspection activities. eMAP can be configured to allow for seamless transfer of data into the client approved integrated geodatabase schema.











Wednesday, April 14, 2021 (11:00 AM EDT) **AECOM Energy Data Analytics – Make Buildings Better**

OUR SPEAKERS: JERRY BURIN, SYED SUHAIL & CRAIG SIEBEN



JERRY BURIN. Jerry Burin, Director of Energy Operations, joined AECOM in December 2018 after managing the operations of a Chicago-based boutique energy consulting firm. He leads a team of energy services professionals consisting of energy engineers and consultants and is responsible for specifying and selling energy services engagements, client account management, and directing energy teams' successful execution of all service engagements. In addition to leading and directing the energy efficiency team, he specializes in both enterprise-wide strategic energy planning and in optimizing existing HVAC infrastructure that drives annual energy cost savings with limited capital investment.

SYED SUHAIL, CEM. Syed Suhail, Manager of AECOM Energy Analytics, is a mechanical engineer and data scientist with 16 years of diverse experience in data integration; energy use optimization; continuous commissioning; remote monitoring; fault detection and diagnosis;

retro-commissioning; measurement and verification; energy auditing; and acoustic noise and vibration analysis of subsea applications. Syed leads AECOM's energy data analytics service line and has designed and created a library of analytical algorithms based on best engineering practices to highlight anomalies leading to improved operations, increased energy savings opportunities, improved equipment maintenance, and greater occupant comfort.

CRAIG SIEBEN. Craig Sieben, Director of AECOM's Energy Practice, is our webinar's moderator/presenter. He focuses on developing new business, implementing the Next Generation Energy initiatives and executive client management. Always thinking about "skating to where the puck is going," he realized that energy data analytics could be a powerful tool to drive greater energy efficiency. Craig is pleased to be part of AECOM, where he has the opportunity to drive greater energy efficiency and scale the offering to support our clients' speed in shifting to a low-carbon economy.





AECOM's data analytics platform fits into any client's innovation model, leveraging IoT technology. It is currently in use in projects involving investment real estate, higher education, manufacturing, and a healthcare campus.



AECOM's energy data analytics platform is built to analyze data from diverse sources. Historically, large buildings have offered data streams from their HVAC equipment and embedded HVAC system sensors. Any sized facility across an enterprise can be the source of HVAC data for AECOM energy analytics, as well as data from any other source of enterprise operations. Analyzing such data makes buildings better and improves enterprise performance.

AECOM's energy data analytics suite of tools includes SkySpark, which not only acquires and analyzes data from any digital source, but also identifies and interprets meaningful patterns in HVAC performance data. AECOM offers its clients an HVAC performance platform that enables a level of system forensics revealing previously invisible information about why equipment isn't working as intended. AECOM can help its clients go beyond just identifying what happened to look for why it happened. Our goal is to help gain a better understanding of how equipment operates and where there are opportunities to improve performance.

Thursday April 22, 2021 (12:00 PM EDT) KEEPING UP WITH COAL ASH: Open up the Aperture and see THE project – Integrated Facility Closure

OUR SPEAKER: RICK BRANNON



RICK BRANNON, Technical Practice Leader for AECOM's Remediation **Construction Management** Practice, has over 30 years of environmental remediation and restoration experience, which largely has focused on utilizing alternate delivery and contracting strategies. His experience ranges across the remediation spectrum and includes soil and sediment stabilization/ removal/capping, groundwater containment/collection/treatment and site restoration within the federal, industrial, oil and gas and power market sectors.

As a means to connect and engage with you on the many developments in the dynamic CCR marketplace, AECOM is continuing its webinar series titled "Keeping Up With Coal Ash". We have assembled a group of exceptional speakers on various topics of current interest to the CCR community from AECOM and others. Each session will be one hour, allowing for a 30-minute presentation and interactive Q&A.







Wednesday, April 28, 2021 (11:30 AM EDT) **RACC PWR: Resilient Energy Networks & Utilities Solutions**

OUR SPEAKERS: T. LUKE YOUNG, DARCY IMMERMAN, ALI MOLTHEN, ADAM DAVIS, CINDY VARNIER & ANDY BURKEMPER



T. LUKE YOUNG. T. Luke Young is the AECOM Environment **Resilience and Climate Change** Practice Lead in the Americas and will be the webinar's moderator and presenter. He directs teams, provides technical assistance and engages stakeholders to deliver sustainability strategies, climate action plans, vulnerability assessments and climate adapted infrastructure designs. Over his 20 years of experience, T. Luke directed the execution of more than a dozen climate action plans and resilience strategies and supported the development of tools and guidance modules to identify and prioritize resilient infrastructure projects.

DARCY IMMERMAN. Darcy Immerman, AECOM Senior Vice President of Resiliency, is responsible for connecting AECOM's capabilities with a progressive approach to climate adaptation, sustainability, the energy transition to non-carbon sources

and capital asset reliability, as well as microgrids, electrification and energy future consulting for cities and utilities. Darcy is responsible for major pursuits and strategy for the U.S. Energy Business and has more than 30 years of leadership experience in the energy services business.

ALI MOLTHEN. Ali Molthen. Environmental Planner, is in Colorado and has nine years of experience in multidisciplinary NEPA compliance documentation and resilience and climate adaptation planning. She has developed environmental impact assessments, NEPA climate change analyses, resilient alternatives assessments, sustainability program public outreach, climate vulnerability and risk assessments, and climate risk management plans. Ali has worked in the energy and power sector compiling critical issues analyses for renewable energy developments and providing resilience and climate

adaptation planning services for private sector energy utility clients

ADAM DAVIS. Adam Davis, Technical Director of Sustainability & Resilience, has over 25 years of industry experience in using his skills and strengths to help asset and critical infrastructure owners and operators cope, recover and prosper from major shocks and stresses, in particular changing climate conditions. He has completed projects at local, regional, state, national and international scales, looking at hazards, risk, vulnerability and resilience. His key clients include TransGrid, Sydney Airport, Hong Kong international Airport, Singtel, BHP and 100 Resilient Cities

CINDY VARNIER. Cindy Varnier, Principal Consultant, has over 12 years of industry experience spanning operational management and consulting services. She is skilled in undertaking riskbased analysis and applies these skills as part of climate

resilience assessments for various infrastructure assets, including those that form part of, or are critically dependent on, the energy network. Cindy has led technical assessments and facilitated multistakeholder workshops to support organisational understanding and response to climate-related physical and transition risks.

ANDY BURKEMPER. Andrew

Burkemper, Senior Geologist with AECOM in St. Louis, Missouri, has 14 years of professional experience in the environmental industry. Much of his experience has focused on environmental site characterization and remediation for clients in the energy, oil and gas, mining, and solid waste landfill industries. Recently, his graduate studies and long-time personal passion for climate science and sustainability have been used within AECOM's related project work and various business development efforts.

Harsh and extreme climate is increasingly destabilizing our communities and placing pressure on infrastructure, particularly power assets that are struggling to cope or already at capacity. The presentation will provide an overall view of the impacts of climate hazards on energy networks and utility operations and highlight the necessity to include future climate change scenario modelling in risk assessments and resilience planning. It will outline the economic and socio-economic value proposition of resilience assessments for clients and how they are leveraged to set up success. Case studies will demonstrate how companies use climate risk assessments to develop adaptation responses and management practices to ensure continued reliable service to customers and reduce economic impact of extreme climate events and climate trends leading to resource and infrastructure stresses.







REGISTER

Simulated Change in Temperature: 2036-2065 (°F)



MEAN ANNUAL HIGHEST MAXIMUM TEMPERATURE

About AECOM

AECOM is the world's premier infrastructure consulting firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to program and construction management. We partner with our clients in the public and private sectors to solve their most complex challenges and build legacies for generations to come. On projects spanning transportation, buildings, water, governments, energy and the environment, our teams are driven by a common purpose to deliver a better world. AECOM is a Fortune 500 firm and its Professional Services business had revenue of approximately \$13.2 billion in fiscal year 2020.

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