Georgia Tech College of Design
School of Building Construction

ASSOCIATED SCHOOLS ASC of CONSTRUCTION

KENNESAW STATE UNIVERSITY
COLLEGE OF ARCHITECTURE AND CONSTRUCTION MANAGEMENT
Department of Construction Management

58th Annual ASC International Conference
Hosted by Georgia Tech and Kennesaw State University
Paper Schedule

Thursday, April 21, 2022

	Track	Construction Eduation		New and Current Technologies in Construction		PM and Controls		Construction Workforce and Organizational Management		Health, Safety, and Quality Management		Centennial
	Moderator	Soowon Chang		Carol Massarra		Mingshu Li		Rachel Mosier		Raj Shah		
	Location	Session 1 in Highlands		Session 2 in Buckhead		Session 3 in Home Park		Session 4 in Inman Park		Session 5 in Little Five Points		
01:30 PM 02:30 PM	Group 1 Papers	Integration of a UAS-Photogrammetry Module in a Technology-based Construction Management Course	***Gilles Albeaino, Masoud Gheisari and Raja R. A. Issa***	Evaluating Viable Additive Manufacturing Alternatives In Comparison to Traditional Construction Methods	***Dakota Boll and Patrick Suermann***	Using Historical Bid Data for Enhanced Conceptual Estimating	***Ahmed Abdelaty, Kevin Nesselhauf and Nathan Munie***	Benefits of Multicultural Project Team Setting: Views of Professionals in the Ghanaian Construction Industry	***Ernest Kissi, Prosper Baban-Ayeng and Amma Kyewaa Agyekum***	Analysis of U.S. Construction "Fatal Four" Fatalities investigated by OSHA in 2019	***James Jenkins***	Region 8 Meeting
		Integrating Learning Management Systems and Faculty Performance Evaluation for Continuous Program Assessment and Improvement	***Jacob Avila and Kelly Strong***	A Taxonomy-based Approach to Analyse the impacts of Automation on Human Workers' Qualifications	***Xi Chen and Mohammad Ibnaj***	E-procurement Practices in The U.S. Construction Industry	***Ammar Alazrraq, Haseeb Akbar, Ibukun Awolusi and Siyuan Song***	Evaluating Various Job Functions to Map a Typical Career Path in the Roofing Industry	***Jason Lucas, Dhaval Gajjar, David Davis and Georgia Leadholt***	Safety Considerations to Operate Drones on Construction Sites	***Mohammad Khalid, Mostafa Namian and Amin Akhnoukh***	
		Enhancing Student Learning Experience by Incorporating Virtual Reality into Construction Safety and Risk Management Class	***Payam Bakhshi, Afshin Pourmokhtarian, Benjamin Everett and Zach Bannon***	Single Image based Volume Estimation for Dump Trucks in Earthmoving using Machine Learning Approach	***Mercan Deniz, Faria Alam, Chenxi Yuan, Hoo Sang Ro and H. Felix Lee***	Empirical Analysis of Lump Sum Pay Item Prices for Highway Projects	***Minsoo Baek, Mingshu Li and Baobok Ashuri***	Distinguishing Human Factors of Top-Performing Project Managers in the Sheet Metal and Air Conditioning Trades	***Omar Moaiil, Brian Lines, Amirali Shahvani, Jake Smithwick and Kenneth Sullivan***	Perceptions for Disaster Preparedness in Historic Houses of Worship	***Sandeep Langar, Anthony Vannette and Angela Lombardi***	
02:30 PM 02:45 PM	Networking Break									Buckhead Cadenza		
	Track	Construction Eduation		New and Current Technologies in Construction		PM and Controls		Construction Workforce and Organizational Management		Health, Safety, and Quality Management		Centennial
	Moderator	Ben Farrow		Sandeep Langar		Eunhwa Yang		Kasim Korkmaz		Ernis Parker		
	Location	Session 6 in Highlands		Session 7 in Buckhead		Session 8 in Home Park		Session 9 in Inman Park		Session 10 in Little Five Points		
02:45 PM 03:45 PM	Group 2 Papers	Effectiveness of Computer Models on Learning Outcomes in a Dynamics Course – A Pilot Study	***Arup Bhattacharya and Ehsan Mousavi***	Real-time Construction Inspection in an Immersive Environment with an Inspector Assistant Robot	***Srijeet Halder and Kereshmeh Afjari***	Empirical Analysis for Modeling Spatial Variation in Right of Way Acquisition Durations	***Frederick Chung and Baobok Ashuri***	Differences between Job Roles in the Specialty Trades: A Human Factors Approach	***Omar Moaiil, Brian Lines, Amirali Shahvani, Jake Smithwick and Kenneth Sullivan***	Risk Analysis of Occupational Heat-Related Illness	***Peiyi Lyu, Siyuan Song and Precious Watts***	Education Committee Meeting
		Hands-On Approach to Teaching Construction Materials and Methods: A Case Study	***Herman Burge II, Bryan Bloom and Anthony Perrenoud***	Feature Engineering for development of a Machine Learning Model for Clash Resolution	***Ashit Horode, Walid Thabet and Fernando Leite***	Evaluation of the Engineering and Design Scope of Services for State DOT Infrastructure Projects	***Ajay Jadhav, Dennis Bausman and Ehsan Mousavi***	Strategic Imperatives of Soft Skills Training and Development; An exploratory investigation into the key factors influencing soft skills training and development participation and decision-making	***Sonya Meekel and Eamon Kirke***	Physiological Metrics across Construction Activity	***Sreemala Majumder, Caroline Clevenger, Mostaasem Abdellah, Mehdi Ghafouri and Mark Russell***	
		Assessing Virtual Learning Environments (VLE) for Construction Management Education	***Janet Campbell, Bradley Bonhart, Stephen Austin, Amelia Bogdanovic and Andy Reid***	Implementation of Laser Scanning and Photogrammetry in the US Commercial Building Sector	***Ali Karbasiahvazi, Svetlana Olbina and Jonathan Elliott***	Construction Project Level-based Environmental, Social, and Governance (E-ESG): A Review	***Sunglin Kim and Soowon Chang***	Post-COVID Analysis on Workplace Design and Trend	***Erin Middleton, Changyi Zhang, Bryan Dyer and Seoleey Demirkesen***	COVID-19 Vaccine Acceptance Among Construction Workers	***Fahim Ridwan Nabil, Mostafa Namian Ph.D., Jerry Shuler, David L. Battle Ph.D. and M. K. S. Al-Mihdawi***	
03:45 PM 04:00 PM	Networking Break									Buckhead Cadenza		
	Track	Construction Eduation		New and Current Technologies in Construction		PM and Controls		Construction Workforce and Organizational Management		Contracting, Project Delivery, and Legal Issues		Centennial
	Moderator	Ece Erdogmus		Rodolfo Valdes		Svetlana Olbina		Md Hasibul hasan rahat		Minsoo Baek		
	Location	Session 11 in Highlands		Session 12 in Buckhead		Session 13 in Home Park		Session 14 in Inman Park		Session 15 in Little Five Points		
04:00 PM 05:00 PM	Group 3 Papers	Assessing Industry Estimating Software Utilization Practices to Improve Construction Education	***Wesley Collins and Lauren Redden***	The Impact of Virtual Construction Field Trips on Students' Perceptions in Commercial Construction	***Andrew Kline, Joseph Cleary and Scott Kelting***	Impact of COVID-19 on Construction Project Performance in the US	***Tamara McCuen, Somik Ghosh and Olusoji Fasalojo***	Evolution of Patterns in Inclusion, Diversity, Equity, and Accountability (IDEA) and Race, Ethnicity, and Language (REAL) in Construction Job Market using Web Scraping and Text Mining Techniques	***Heung Jin Oh, Seyed Mohsen Shahandashti and Baobok Ashuri***	Integrated Project Delivery for Mechanical Contractors	***Matthew Barrows and Kevin Grosskopf***	Faculty and Career Development Committee Meeting
		A Review and Comparison of Associated Schools of Construction (ASC) Capstone Course Content	***Luciana Dobs, Fernando Romero Moreno and Brad Benhart***	Adaptation of Autonomous Vehicles into Highways and Roads: Michigan Case	***Kasim Korkmaz and Hyun Koo***	A Review of Genetic Algorithm as a Decision-Making Optimization Tool in Project Management	***Chinedu Okonkwo, Richard Garza, Tulio Sulbaran and Ibukun Awolusi***	Women in the Construction Industry Preferences to Working in the Field vs. in the Office	***Charner Rodgers, Brandi Williams, Yujin Kim and Eunhwa Yang***	Project Delivery Method for Facility Condition Assessments – A Study of Industry Practices by AEC Service Providers	***Derek Hillestad, Kenneth Sullivan, Kristen Hurtado, Steven Ayer and Jake Smithwick***	
		Do High Impact Educational Practices Translate to Peak Learning Moments? An Introductory Study of Student Experiences in the Built Environment	***C. Ben Farrow, Tom Leatham, Eric M. Wetzel, Kendall McGovey and Katie Boyd***	Distance Discrepancies in T-LIDAR, Point-Cloud Models Georeferenced via RTK and Static GNSS	***Gustavo Maldonado, Usman Ibrahim, Roger C. Purcell, Seonkie Nam and Marcel Maghlar***	Situational Impact on Leadership Styles with Emerging Construction Managers	***Anthony Paremoud and Meagan Patterson***	Mental and Physical Health for Construction-related Employees: Effects of Work from Home (WFH) and Demographic Indicators	***Hongyue Wu, Xingzhou Guo and Yunfeng Chen***	A Comparison of Contract Requirements for Design Professional Liability Insurance in Design-build Highway Projects	***Jung Hyun Lee and Baobok Ashuri***	

Friday, April 22, 2022

	Track		Construction Eduation		New and Current Technologies in Construction		PM and Controls		Contracting, Project Delivery, and Legal Issues		Centennial
	Moderator		Ahmed Abdelaty		Mohammad Ebeisi		Pardis Pishdad-Bozorgi		Jung Hyun Lee		
	Location		Session 16 in Buckhead		Session 17 in Home Park		Session 18 in Inman Park		Session 19 in Little Five Points		
08:45 AM 09:45 AM	Group 4 Papers		Sustainability and Resilience Education Framework for Interdisciplinary Course Development	***Mohammad Hasham M. Mehany and Shantanu Kumar***	Productivity Analysis of Multi-Story Structures: Mass Timber Versus Cast-in-Place Concrete	***Anthony Miranda and Lameck Onsongo***	Blockchain Applications through the Lens of Project Managers	***Saeed Rokooei and Alireza Shojaei***	Time, Cost, and Construction Intensity Comparison between Design-Manufacture-Construct and Traditional Design-Bid-Build Delivery Methods	***Yikuan Peng and Jeffrey Kim***	Teaching Workshop Committee Meeting
			Case Study: Development and Implementation of a Programmable Assessment Matrix	***Francois Jacobs, Renxiang Lu and Andrei Zadorozhnyi***	Smart Cities' Strategies for Contractors: A Thematic Analysis of Selected Documents	***Emad Najmi Sarooghi and Tamara McCuen***	Success factors in the implementation of flow scheduling	***Ihab Saad***	Delivery Method for Rapid Bridge Construction	***Khalid Siddiqi and Miaiki Mengistu***	
			Assessment of the Relationship between Ethical Decision-Making and Human Dimensions of Construction Students	***Rebecca Kassa, Omar Moaiil, Brian Lines, Jake Smithwick and Kenneth Sullivan***	Eco-efficient Construction: The Utilization of Nanotechnology and 3D Printing in the Sustainable Building Practices of the AEC Industry	***Janey O'Leary, Ibukun Awolusi, Ammar Alazrraq and Chukwuma Nnaji***	Case Study: Construction Site Utilization Planning for Custom Multifamily Residential Developments	***Armin Saadatian and Svetlana Olbina***			
09:45 AM 10:00 AM	Networking Break								Buckhead Cadenza		
	Track	HighNands	Construction Eduation		New and Current Technologies in Construction		PM and Controls		Construction Eduation - Administration		Centennial
	Moderator		Jung Hyun Lee		Raymond J Godfrey		Ibukun Awolusi		Frederick Chung		
	Location		Session 20 in Buckhead		Session 21 in Home Park		Session 22 in Inman Park		Session 23 in Little Five Points		
10:00 AM 11:00 AM	Group 5 Papers	Educational Activity: Procore: Incorporating Project Management Software in Construction Education (Presented by Kevin Molloy, Sr. Social Impact Specialist, Procore Technologies and Bryan Malone, Adjunct Faculty, Clemson University).	Student Perceptions of Construction Scheduling Teaching Methods	***Andrew Kline and Steven Ayer***	Conscious Intelligent Buildings: Envisioning the Next Generation of Smart Buildings	***Pardis Pishdad-Bozorgi and Qinghua Zeng***	A Model for Delay Analysis Impact at Planning Phase of Oil & Gas Pipeline Projects	***Raj Shah, Layth Kraiki, Wilfred Matipa and Fiona Borthwick***	The Early History of Undergraduate Construction Education in the United States	***Richard Burt***	Marketing Committee Meeting
			Immersive Virtual Field Trips with Virtual Reality in Construction Education: A Pilot Study	***Yupeng Luo, Wei Wu, Gustavo Morales and Elnaz Mohammadpaghini***	Unmanned Aerial Systems in the U.S. Construction Industry: Exploratory Study on Current State of Practice	***Spoorthy Venkatesh Prakash, Caroline Clevenger and Manideep Tummalapudi***	Assessing the effectiveness of Constructivism and Transformational Leadership on STEM/TEKS through a Construction Summer Experience	***Tulio Sulbaran and Sandeep Langar***	COVID-19 and the 2021 ASC International Conference: Opportunities and Challenges Ahead	***C. Ben Farrow and Blake Wentz***	
			Initial Perceptions of Remote Virtual Inspections in the Residential Construction Industry Sector	***Kyle Morse, Stacy Kalagnoff and Andrew Kline***	A Step Towards Automated Tool Tracking on Construction Sites: Boston Dynamics SPOT and RFID	***Eric M. Wetzel, Muhammad Umar, Will Richardson and Justin Patton***					
11:00 AM 11:15 AM	Networking Break								Buckhead Cadenza		
	Track	HighNands	Construction Eduation		Sustainability & Energy Efficiency in the Built Environment		Construction Eduation		AEC Materials		Centennial
	Moderator		Jacqueline Stephens		Raymond J Godfrey		Manideep Tummalapudi		Frederick Chung		
	Location		Session 24 in Buckhead		Session 25 in Home Park		Session 26 in Inman Park		Session 27 in Little Five Points		
11:15 AM 12:15 PM	Group 6 Papers	Educational Activity: Reality Capture for Built Environment (Presented by D. Russell Gentry (GT), Dr. Tom Leatham (Auburn), Prof. Junshan Liu (Auburn) and Dr. Danielle Willkens (GT))	Integrating Virtual Reality (VR) Into Construction Engineering and Management (CEM) Courses-A Case Study	***Ri Na, Oyelola Ajiguzub, Ryan Webber and Edgar Small***	Barrier to the use of Sandbag Material Technologies as a Sustainable Affordable Housing Solution: Perspectives from South Africa	***Johnson Adetoazo, Abimbola Windapo and Francesco Pomponi***	Relationship between Undergraduate GPA and Associate Constructor (AC) Exam Scores of Construction Management Students	***Joel Wan, Robert Ries, Sollie Schattner and Ian Flood***	BIM for Fast-track Construction under COVID-19 Circumstances: A Comparative Case Study in the African Context	***Hanane Bouhmoud, Dalila Loudyi and Salman Azhar***	Research Committee Meeting
			Pragmatic Development of a Cybersecurity Module for Construction Education	***Kenneth Sands and Min Jae Suh***	Energy and Cost Comparison of Building Cooling Systems	***Sanjeev Adhikari and Parker Gordy***	Influence of Pedagogical Agent Deictic Gestures on Construction Management Students Learning within a 360-Degree Virtual Field Trip	***Jing Wan, Shrishail Zolaka and Masoud Ghaisari***	Review of Building Renovation Materials for Structural and Non-Structural Components	***Changchang Tao, Soowon Chang and Pedro Fernández-Cabán***	
			The Role of Self-Determination Theory within a Redesigned Construction Management Technology Curriculum	***Ramyani Sengupta and Anthony E. Sparkling***	CO2eq Comparison Between a Light Gauge Steel Framing Structure and a CMU Structure for Single Family Residential Projects in Costa Rica	***Rodrigo Altmann, Bolivar Senior, Rodolfo Valdes-Vasquez and Rebecca Atadero***					
12:15 PM 2:00 PM		Lunch Keynote (speaker: Shannon Lightfoot, McCarthy) | Paper and Poster Awards							Midtown II		
02:00 PM 02:15 PM	Networking Break								Buckhead Cadenza		
	Track	HighNands	Construction Eduation		Sustainability & Energy Efficiency in the Built Environment		Health, Safety, and Quality Management		AEC Materials		Centennial
	Moderator		Sanjeev Adhikari		Heung Jin Oh		Mingshu Li		Frederick Chung		
	Location		Session 28 in Buckhead		Session 29 in Home Park		Session 30 in Inman Park		Session 31 in Little Five Points		
02:15 PM 03:15 PM	Group 7 Papers	Educational Activity: By Trimble: Industry Sanity Check; Preparing graduates for a rapidly evolving technological career in AEC. Panel Discussion Join McCarthy Buildings VDC director; Shannon Lightfoot, along with the COO of Accelerated Building Solutions and Construction Brothers Podcast host Eddie Campbell, and Trimble building scientist and Georgia Tech alum Hariharan Natarajan	Effectiveness of Collaborative Learning in a CM Flipped Online Course: A Case Study	***Euysup Shim, Frederick Adomako and Haiyan Xie***	A Comparative Life Cycle Assessment Study of Wood and Steel Materials on a Virtual Office Building at the Project End-of-Life Stage	***Bin Bi, Zhili Gao and Abdulazeez Banawi***	Construction Worker-Drone Safety Training in a 360 Virtual Reality Environment: A Pilot Study	***Jian-Yao Chang, Eduardo Lunardini Silva Mendes, Masoud Gheisari and Idris Jeelani***	Detection of Alkali-Silica Reactivity using Field Exposure Site Investigation	***Amin Akhnoukh and Adithya Reddy***	Industry Relations Committee Meeting
			Effectiveness of the Synchronous Online Flipped Classroom on Students' Learning During the COVID-19 Pandemic	***Euysup Shim and Sundeep Inti***	A Post-Construction Evaluation of Long-term Success in LEED-certified Residential Communities	***Mohsen Goodarzi and George Berghorn***	Efficacies of Different Modes of Disseminating Construction Safety Training	***Matthew Reyes, Somik Ghosh and Saidu Mohammed***	The Effects of Partial Replacement of Sand by Recycled Plastic on Concrete Properties	***Amaal Al Shenawy, Metin Ozgumert and Isaiah Akinkunmi***	
			Analysis of Learning Outcomes of a Baccalaureate Degree Program in Construction Management	***Jishnu Subedi***	Roof Design Efficiency for Energy Consumption in Residential Units	***Marcel Maghlar, Kenton Akshar, Gustavo Maldonado and Clinton Martin***					
03:15 PM 03:30 PM	Networking Break								Buckhead Cadenza		
	Track		Construction Eduation		Sustainability & Energy Efficiency in the Built Environment		Health, Safety, and Quality Management				Centennial
	Moderator		Jacqueline Stephens		Jishnu Subedi		Heung Jin Oh				
	Location		Session 32 in Buckhead		Session 33 in Home Park		Session 34 in Inman Park				
03:30 PM 04:30 PM	Group 8 Papers		Virtual Collaborative Spaces for Online Site Visits: A Plan-Reading Pilot Study	***Yuan Sun, Gilles Albeaino, Masoud Gheisari and Ricardo Eiris***	Use of Pulverized Recycled Glass in Concrete	***Warren Plugge***	Impact of Covid-19 on Construction Industry 4.0 Adoption and Implementation	***Sanjeev Adhikari, Gregory Joyner, Rachel Mosier and Sandeep Langar***			International Development Committee Meeting
			Integrating Technology Adoption Theories into the Construction Management Education: A Pilot Study	***Xi Wang and Sogand Hasanzadeh***	Using Plastic Wastes in Construction: Opportunities and Challenges	***Md. Hasibul Hasan Rahat, Dr. Carol Massarra and Dr. George C. Wang***	The Effects of COVID-19 on the Safety Procedures of Construction Workers: A Survey	***Ammar Alazrraq, Haseeb Akbar, Ibukun Awolusi and Siyuan Song***			
					Assessing the Structural properties of the Sandbag wall for alternative housing construction	***Abimbola Windapo, Nicholas Jarrat, Johnson Adetoazo, Francesco Pomponi and Fidelis Emuze***					
04:30 PM 05:30 PM	Networking Break								Buckhead Cadenza		