

Engineering and Construction on the Moon

-A Pre-Conference Short Course

at the ASCE Earth & Space 2021 Conference; April 19-20, 2021 (Virtual)

PROGRAM SCHEDULE

(Subject to Change)

Time (All time- ET)	Topic	Instructor
DAY 1: Monday, April 19, 2021 (1:00 PM – 4:45 PM) – Part 1		
1:00 PM -1:05 PM	Opening Welcome & Course Introduction	Ramesh B. Malla , Ph.D., F. ASCE, F. EMI, A. F. AIAA; Professor, University of Connecticut, Storrs, CT.
1:05 PM – 2:15 PM	Lunar In-Situ Resource Utilization (ISRU): Concept to Reality	Gerald (Jerry) Sanders , Lead, ISRU System Capability Leadership Team, NASA Johnson Space Center, Houston, TX; and Julie Kleinhenz , Ph.D., Research Engineer, Glenn Research Center, Cleveland, OH.
2:15 PM – 3:00 PM	Impact of Lunar Environmental Conditions on Requirements of Lunar Systems/Structures	Alexander M. Jablonski , Ph.D., P. Eng., Project Manager, Canadian Space Agency, Ottawa, Canada
3:00 PM – 3:10 PM	Break	----
3:10 PM - 3:55 PM	Drilling on the Moon: Past, Present, Future	Kris Zacny , Ph.D., Vice President, Exploration Technologies, Honeybee Robotics, Altadena, CA.
3:55 PM - 4:40 PM	Lightweight Robotic Excavation on the Moon	Dr. Krzysztof (Chris) Skonieczny , Tier 2 Canada Research Chair in Aerospace Robotics and Associate Professor, Concordia University, Montreal, Canada
4:40 PM – 4:45 PM	DAY 1 – Closing	Ramesh B. Malla , Ph.D., F. ASCE, F. EMI, A. F. AIAA; Professor, University of Connecticut.
DAY 2: Tuesday, April 20, 2021 (1:00 PM – 4:00 PM) – Part 2		
1:00 PM -1:05 PM	Welcome Back Remarks – DAY 2	Ramesh B. Malla , Ph.D., F. ASCE, F. EMI, A. F. AIAA; Professor, University of Connecticut, Storrs, CT.
1:05 PM -1:50 PM	An Overview of NASA Lunar Simulants	John Gruener , Lead, NASA Simulant Team, NASA Johnson Space Center, Houston, TX.
1:50 PM - 2:35 PM	Lunar Habitat Concepts and Design/ Analysis for Extreme Temperature	Ramesh B. Malla , Ph.D., F. ASCE, F. EMI, A. F. AIAA; Professor, University of Connecticut, Storrs, CT.
2:35 PM - 2:45 PM	Break	-----
2:45 PM – 3:55 PM	Design for Robotic Construction on the Moon	Robert Mueller , Senior Technologist, NASA, Kennedy Space Center, FL; and Peter Carrato , Ph.D., P.E., Technical Fellow Emeritus, Bechtel Corp., VA.
3:55 PM - 4:00 PM	Concluding Remarks & Short Course Closure	Ramesh B. Malla , Ph.D., F. ASCE, F. EMI, A. F. AIAA; Professor, University of Connecticut, Storrs, CT.