ASCEND
Engagement Session

Topic:	Space Exploration Architectures and Enabling Infrastructures
Engagement Session Type:	Workshop
Session Length (minutes):	3 Hours **November 17, 2020 from 3:00 PM to 6:00 PM EASTERN STANDARD**
	https://www.ascend.events/
Proposed Session Title:	**AIAA ASCEND Conference: WRKSHP-14, Sustainable Lunar Presence: Infrastructure to Stay**

Outline/Agenda of Session Activities:

This workshop will focus on gathering a group of cross-disciplinary subject matter experts in order to brainstorm and define the necessary infrastructure needed for a sustainable human lunar presence in the context of environmentally appropriate architectural design and civil engineering robotic construction using locally available resources on the lunar surface. Emerging technologies and new materials are opening up new possibilities and economic opportunities. A short term presence can ignore infrastructure, but a long term presence must consider the infrastructure needs in order to provide for all stakeholder needs. The terrestrial construction and mining communities are well versed in running mega-projects for multi-billion dollar Earth based infrastructure such as power plants, city development, mines, transportation networks and more, with commercial motivation and positive cash flow outcomes.

Session Goal(s)/Outcome(s):

- **Session 1 will be presentations and discussion for setting the framework and context of the workshop with infrastructure categories defined**
- **Session 2 will involve an interactive exercise where participants will discuss and vote on the most relevant needs for ”lunar infrastructure to stay” topics**
- **Session 3 will be breakout sessions for each infrastructure topic. Each breakout team will define the questions and information needed to develop objectives for such infrastructure**
- **The final 30 minutes will involve each breakout team reporting out**
- **The organizers (Dr. Bob Moses, Dr. Clive Neal, Nathan Gelino, and Rob Mueller) will compile the breakout report into a final report to AIAA ASCEND and relevant AIAA Technical Committees (TC).**