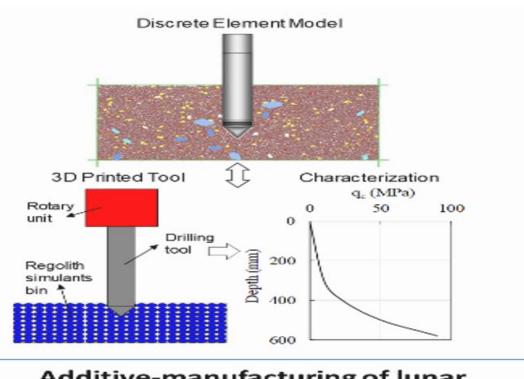
## Devices and tools enabled by Advanced Manufacturing (AM) for Space Technology and Applied Research

Project 3 - In-Situ Resource Utilization-Mars (ISRU)



## In-Situ Resource Utilization-Mars (ISRU)

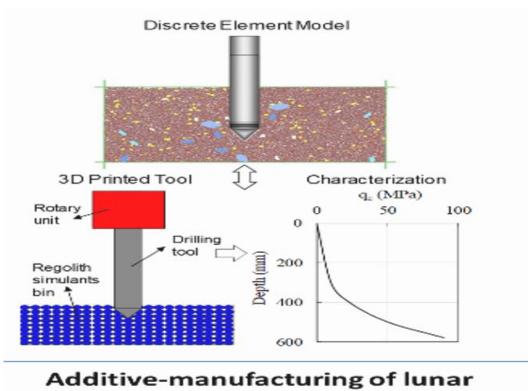
external collaborator at Clemson
University, have been working on the
task 1 in which they are working on
how to formulate a bio-inspired
energy-efficient drilling method and
develop a discrete element model for
evaluating the mechanism for
interaction of drilling tool and the
lunar regolith (granular materials).
The technical lead has engaged three
UDC students to work on this project.



Additive-manufacturing of lunar regolith and tools

## In-Situ Resource Utilization-Mars (ISRU)

With the aim to understand the fundamental behavior of drill-regolith interaction and energy-efficient geotechnical tool for in situ measurement of engineering properties of lunar regolith through extraterrestrial subsurface regolith characterization using AM fabricated Lunar/Mars regolith processing tools.



Additive-manufacturing of lunar regolith and tools