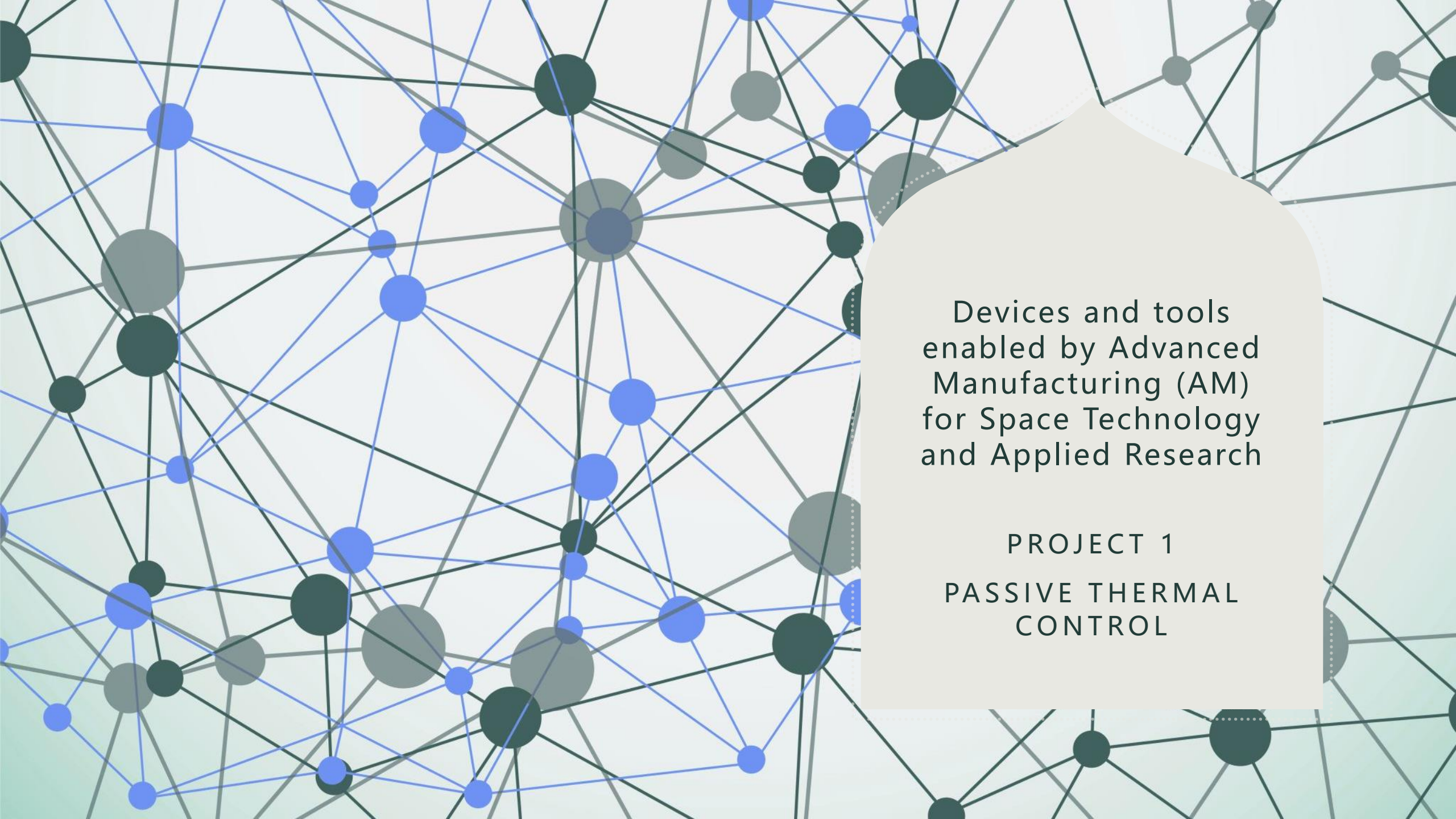


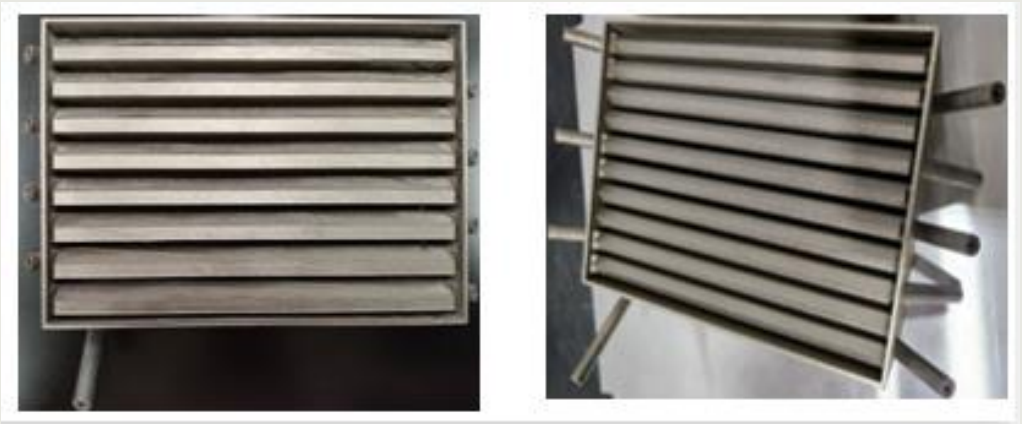
Devices and tools enabled by Advanced Manufacturing (AM) for Space Technology and Applied Research

PROJECT 1

PASSIVE THERMAL CONTROL

Passive Thermal Control

- UDC team led by Dr. Xu and external collaborators (including Advanced Cooling Technologies, University of Maryland, and NASA Johnson Space Center) have been working collaboratively.



Passive Thermal Control

- With the aim to reduce the overall mass of the on-board thermal management system and minimize the temperature fluctuation when the environmental temperature changes dramatically through the combination of a) Nano-enhanced phase change materials (PCM) with exceptional thermal properties; and b) Additively manufactured low-mass PCM heat exchanger.