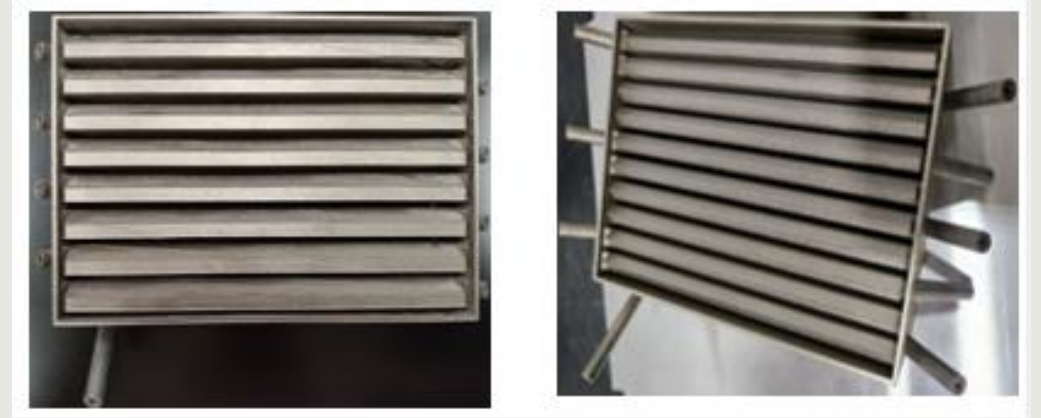
A complex network diagram with nodes of various sizes and colors (blue, dark green, grey) connected by thin lines, set against a light green background. A white rounded rectangle is overlaid on the right side, containing text.

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.

