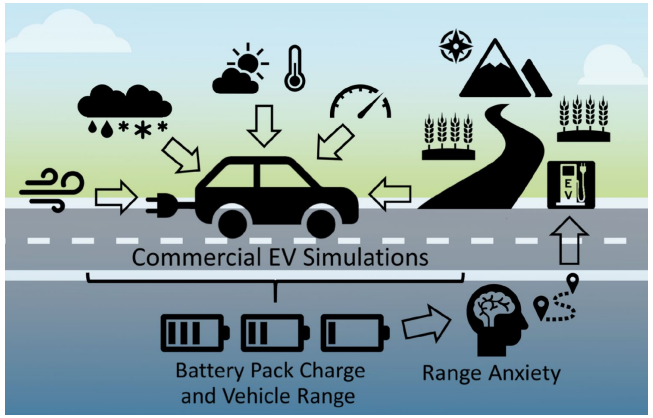
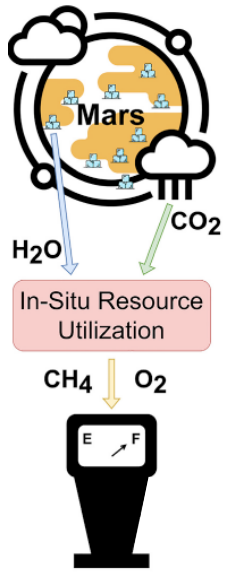
Dr. Christopher Depcik, Ph.D.
Professor, Department of
Mechanical Engineering
Courtesy Professor, Department of
Aerospace Engineering

Research Area: ***Combustion and Thermodynamics***

1. **Biofuels assessment**: engine experiments, combustion kinetics simulations, life cycle analysis
2. **Low temperature combustion:** spherical droplets in microgravity simulations, engine experiments
3. **Electric vehicle modeling**: real-world driving cycles and range estimation
4. **Additive manufacturing**: heat exchanger design, waste heat recovery for secondary cycles
5. **Ultra-high-speed compressor modeling**: next generation refrigerants with low ODP & GWP
6. **In-situ resource utilization**: Mars and Moon resource (fuel, oxygen) production
7. **Whiskey modeling**: Faster than real-time 3-D simulations





Prior Funding:

1. National Aeronautics and Space Administration
2. U.S. Department of Transportation
3. U.S. Department of Energy
4. National Science Foundation
5. Multiple Industry Sponsors

Top Awards and Honors:

1. World's Top 2% Scientist - Elsevier Scopus citations
2. American Society of Mechanical Engineers Fellow
3. SAE International Ralph R. Teetor Award
4. TEDx Presentation

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