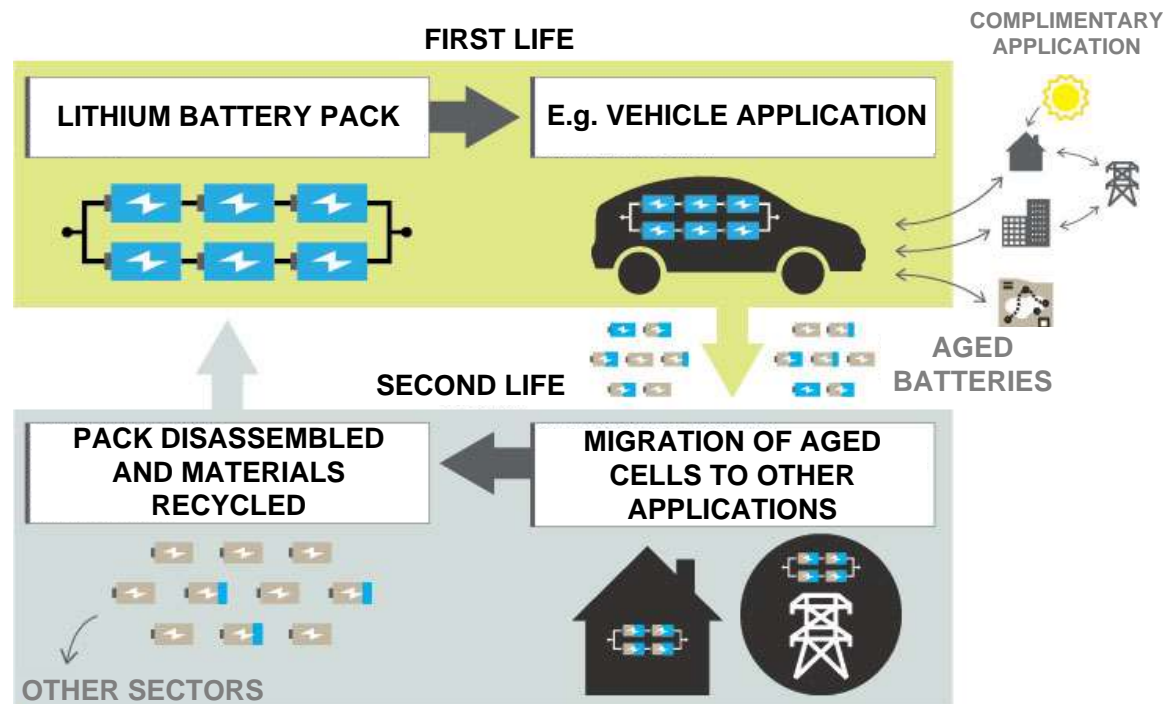


LUCIA GAUCHIA

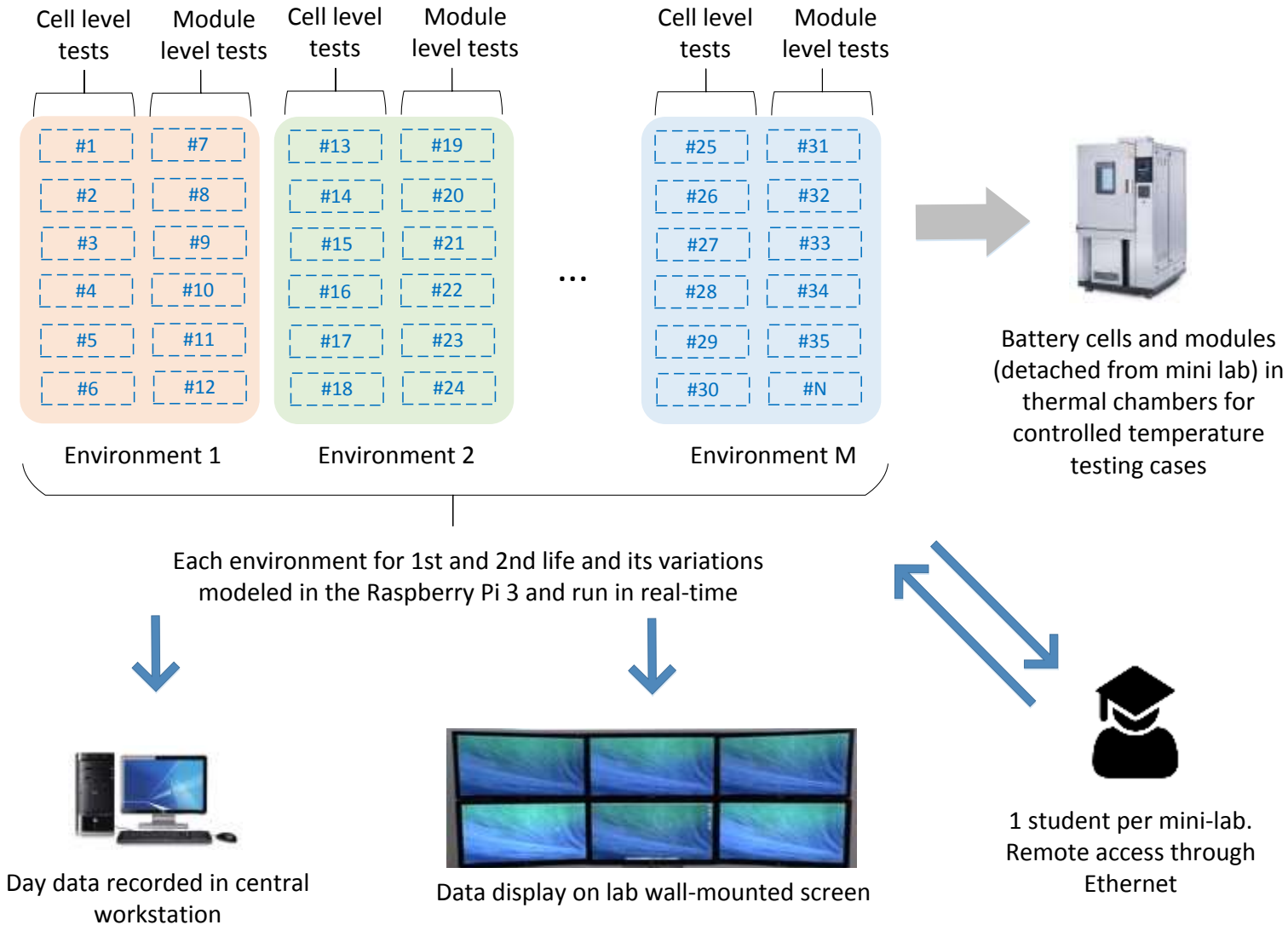
Richard and Elizabeth Henes Assistant Prof. of Energy Storage Systems
Depts. ECE and ME-EM
gauchia@mtu.edu



Battery energy storage

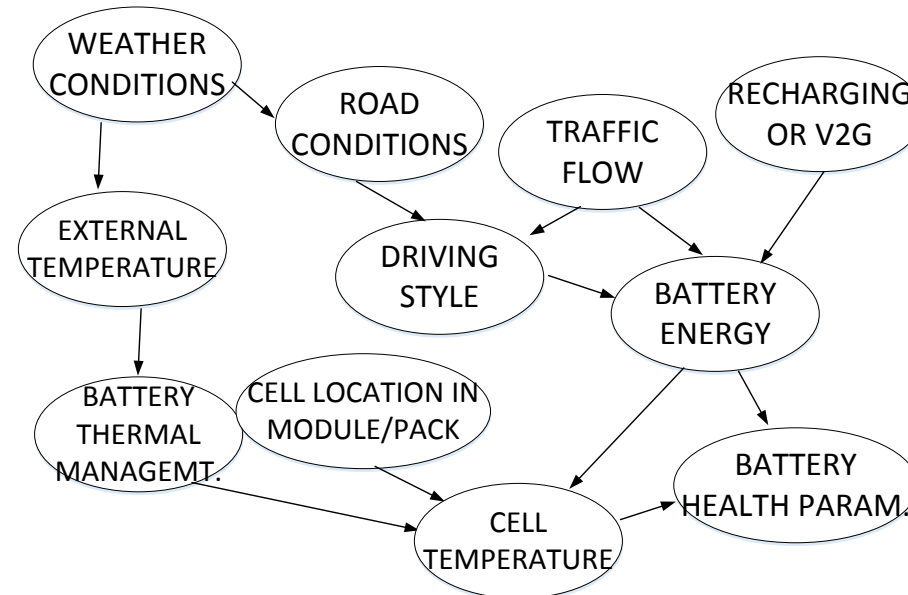
- Use ecological-based approaches:
 - Migration between applications
 - Aging across populations
 - Incomplete data/information
- Funded NSF CAREER Award (2017-2022)

Large scale immersive testing in real-life conditions



Mobility through battery multiple lives

- Develop causality networks that consider ecosystem surrounding the battery
- Data-enabled approach
- Adaptable for each life
- Formulate multi-scale (space and time) theory



Collaborations

- Testing at APSRC directed by Prof. Naber (ME-EM)
- Real GM vehicles
- PNM utility PV-storage installation Albuquerque (NM)
- With real EV and HEV used cells from SpiersNT (Oklahoma)

- Prof. Zhang (CEE): Traffic flow and driving style effect
- Prof. Brown (CS): Bayesian networks
- Prof. Froese (Forestry): Ecological testing and modeling

