

## Standing Meeting: EGoT DTM & ESI Technical Meeting

October 5, 2021, 1400-1450

[Previous Minutes](#)

[Link to Discord](#)

[EGoT DC2 Test Plans](#)

[PEG Knowledge Share Spreadsheet](#)

Attendees: Bass, Adham, Farooq

### Agenda

- Adham
  - State project objectives for the ~next two weeks:
    - Finish Temp calculations
    - Update Literature review section in thesis
    - Make Progress on EMCB paper
  - The progress you've made since the last meeting
    - Returned to HPWH class in Python
    - Working on COP equation
      - Share screen
      - $Wh = (Pave \text{ from } t1 \text{ to } t2) \times (t2 - t1)/60$
      - Try five minutes, 10,15, etc resolutions. << midrar
      - (Thermal lag) << midrar
  - What you need to do next?
    - Modify COP equation if needed.
    - Work on Temp Calculations
    - EMCB Paper:
      - Loadshifting
      - Can prepare using loadup()
      - Or not:
      - What's the effect on customer comfort
        - Infer that via EnergyTake.
        - Leighton: measures T and EnergyTake ← when we measure an ET we can infer an average T.
          - Reference Leighton's thesis for the ET vs T curve
      - Bottom line: direct control can impact the customer., versus SOA (see EGoT IP for discussion of SOA, within the ESI Chapter 2)
      - We assume: that if customer comfort is prioritized, then more customers will subscribe to a DER service program.
  - Technical questions for the team:

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- Farooq

- State project objectives for the ~next two weeks:
  - Run 2021 FResp algo.
  - Read articles and watch lectures on GWO ([swarm intelligence technique](#)).
  - Mathematical modelling of our parameters to apply GWO.
- The progress you've made since the last meeting
  - Read the Evolutionary algorithm section in Emily Barrett's thesis.
  - Reviewed 2021 Capstone report and 2021 Internship report.
  - Met Luke, discussed the parameters.
  - Got 2021 FResp algo python code from Luke, studies it. Found a minor mistake.
  - Compiled a list of event files to run 2021 FResp algo.
  - Watched lectures on Genetic Algorithms.
  - Read a research article on GWO.
  - ECE 502: Read the systematic literature review article by Kevin.
- What you need to do next?
  - Run the 2021 FResp algo.
  - Do some literature search on GWO.
  - Implement GWO for a simple problem in python.
  - Start working on mathematical modelling of our parameters to apply GWO.
- Technical questions for the team:
  - [Window size is an issue: there is an upper bound because there is a minimum time we need to detect the event. ← this is a \*constraint\* \(constraint are great, so long as you don't have too many\)](#)
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