

## EE-472 Power System Analysis II Spring 2024 Project-1

### 1. Outputs of the code

- The code can generate Ybus correctly(I think), however it does not does power flow correctly.

### 2. Test results

- Test results shows that I can generate Ybus correctly but not power flow.

### 3. Convergence threshold.

- I have selected tolerance as  $1e-3$  and maximum iteration as 20.

### 4. Any computational method you used to improve computational performance.

- I havent use any computational method

### 5. Solution time and computer details

- Converged in 4 iterations.
- Execution time of power flow: 7.762243032455444 seconds
- Also for Ybus; Execution time of Ybus formation: 0.006001710891723633 seconds

### 6. Explanation of the solution

- Parsing cdf file correctly
- Building Ybus matrix and getting necessary information to do power flow
- In power flow; mismatches calculated and if  $>$  tolerance builds Jacobian

