

Gas Processing Plant & 3P Multimeter Device

FIRST SEMESTER

- **Objective:** *To complete the Front End Engineering design for the electrical distribution system necessary for the operation of a hypothetical gas chemical processing plant on the Gulf Coast.*
- **Deliverables:** *To complete more detailed engineering design for the processing plant and to develop and build a working three phase multimeter device*

SECOND SEMESTER

- **Objective:** *To complete more detailed engineering design for the processing plant and to develop and build a working three phase multimeter device*
- **Deliverables:** *To complete more detailed engineering design for the processing plant (Lindsey) and to develop and build a working three phase multimeter device (Luke, Levi, Blaine)*

Luke Hankins:
Programming

Blaine Duncan:
Hardware/software
interface

Levi McClenny:
Hardware

Lindsey Miller:
Fluor (cont.)

Three Phase Multimeter

Subsystem-Team Matrix (Preliminary)

Subsystem	Responsible Member	Student Tasks
Hardware	Levi McClenny	Determine means of current and voltage input, method of voltage scaling, and implementing a configurable device sensitivity control system
Hardware/software interface	Blaine Duncan	Configure Raspberry Pi to receive input data and output to the monitor
Functional Programming	Luke Hankins	Develop individual functions of the multimeter (power factor, Fourier analysis, etc.)
Fluor continuation	Lindsey Miller	Develop relay protection scheme and provide relevant drawings, develop motor control schematics, complete relay coordination and dynamic motor starting studies, update original design with necessary corrections, etc.