**MOTIVATION**

- Reduces dependency on fossil fuels and undesirable gas emissions.
- Implement a useful end to waste vegetable oil.
- Increase our sponsor’s Biodiesel production.

**PROBLEM STATEMENT**

Pre-treatment of organic waste oil resulting in a composition of water and bio-solid particles suitable for Biodiesel production.

**OBJECTIVE**

- Design of an energy efficient waste oil purification station.
- Be capable to accommodate a limited budget with our sponsors requirements and expectations.
- Purification system flow simulation analysis.
- Follow operational safety and product governmental regulations.

**PROPOSED DESIGN**

- Integrate a WVO pretreatment station into Biodiesel plant in order to reduce significantly water and bio-solids while meeting our client’s requirements.
- Implement low energy consuming components and strategies such as oil & water separator and fluid stagnation system.
- Transfer purified WVO with eases from storage tanks to biodiesel processing plant.
- Test product.

**PROPOSED DESIGN**

- Proposed Pre-treatment Plant (www.ageratec.com)

**TEAM MEMBERS**

- Milton Díaz
- Jimmy Fernández
- Luis Pérez-Brugman

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