## INTERNSHIP@ UTM PAGOH

prepared for Prof. Ir. Dr. Syahrullail Samion

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# LoCARtic@ UTM Pagoh

UTM centre for Low Carbon Transport in cooperation with Imperial College London.

It is a collaborative research venture between Imperial College and UTM.

The centre as formally established in January 2014, to spearhead on low carbon



UTM Centre for Low Carbon Transport in cooperation with IMPERIAL COLLEGE

#### JOB SCOPE

- To help in installing or research the devices or system required in order to run turbocharger machine.
- To handle the compressor and LPG system.
- Run test of pressure on compressor which compressed air supply to turbocharger. Then, the technicians showed us some installation of liquefied petroleum gas (LPG) piping in the laboratory.
- Observe LPG piping installation
- By using AutoCAD, redraw the actual piping system and compressor component.

# Past Project

Lab Manual

All the details relevant to both engineers /user including:

- Technical Specifications
- Components and Machines
- Pipings
- Safety Procedures
- Maintenance and Troubleshooting

#### **CURRENT TASKS**

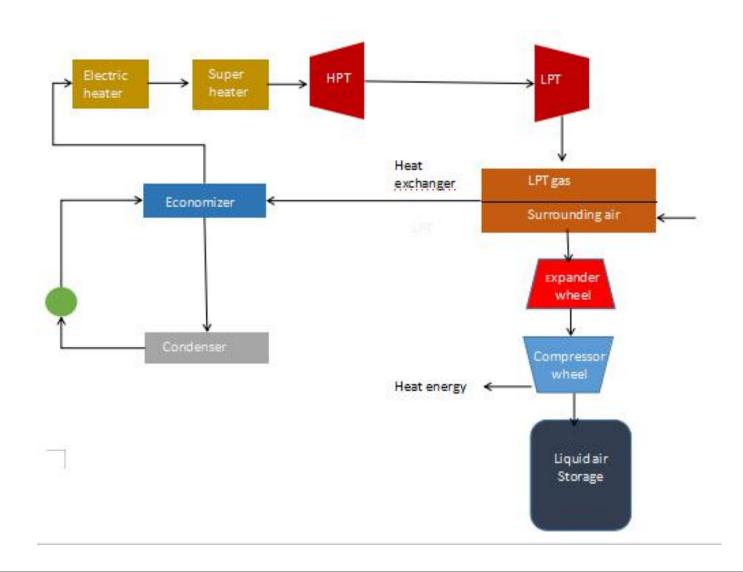
### 1. Liquefaction of Air

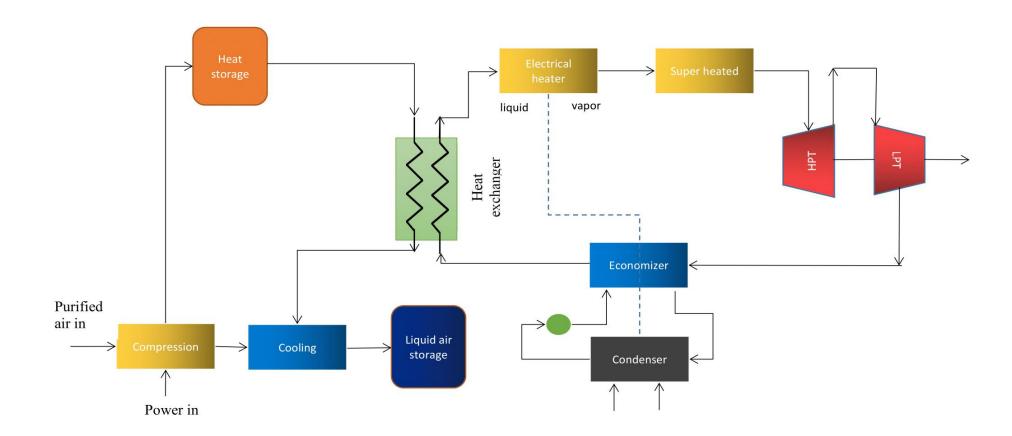
by Farah Umaira and Nurul Iwani

#### **AIM**

- To utilize the waste heat energy from ORC and cycle it back into the system
- To use power generated from ORC to power up any mechanical component in the liquid air process.

#### **PROGRESS**

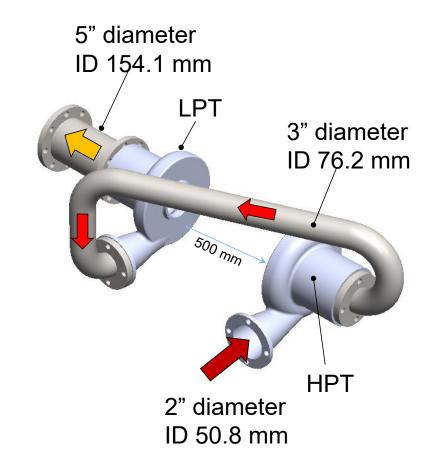




## by Naqib Al Haddad and Alif Armizie

2. LPT and HPT Casing of Organic Rankine Cycle (ORC) Turbine

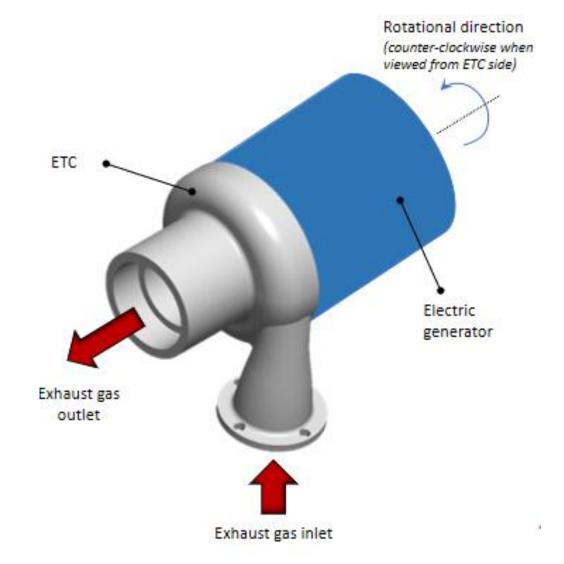
We are assigned to make a casing for the Low Pressure Turbine and High Pressure turbine of the ORC.



by Wahyu Setiawan

3. Design the Electric Turbo Compound (ETC) bearings

Design the shaft that is safe from static and fatigue failure



## THE END

THANKYOU!