



MEAE - A member of AECENAR Applied Research Center

www.aecenar.com/institutes/meae



طاقة الشمال
North Lebanon Alternative Power
www.nlap-lb.com



الجامعة اللبنانية
كلية العلوم

Discipline

Energetic physics

Master Thesis proposal

Laboratory name: AECENAR

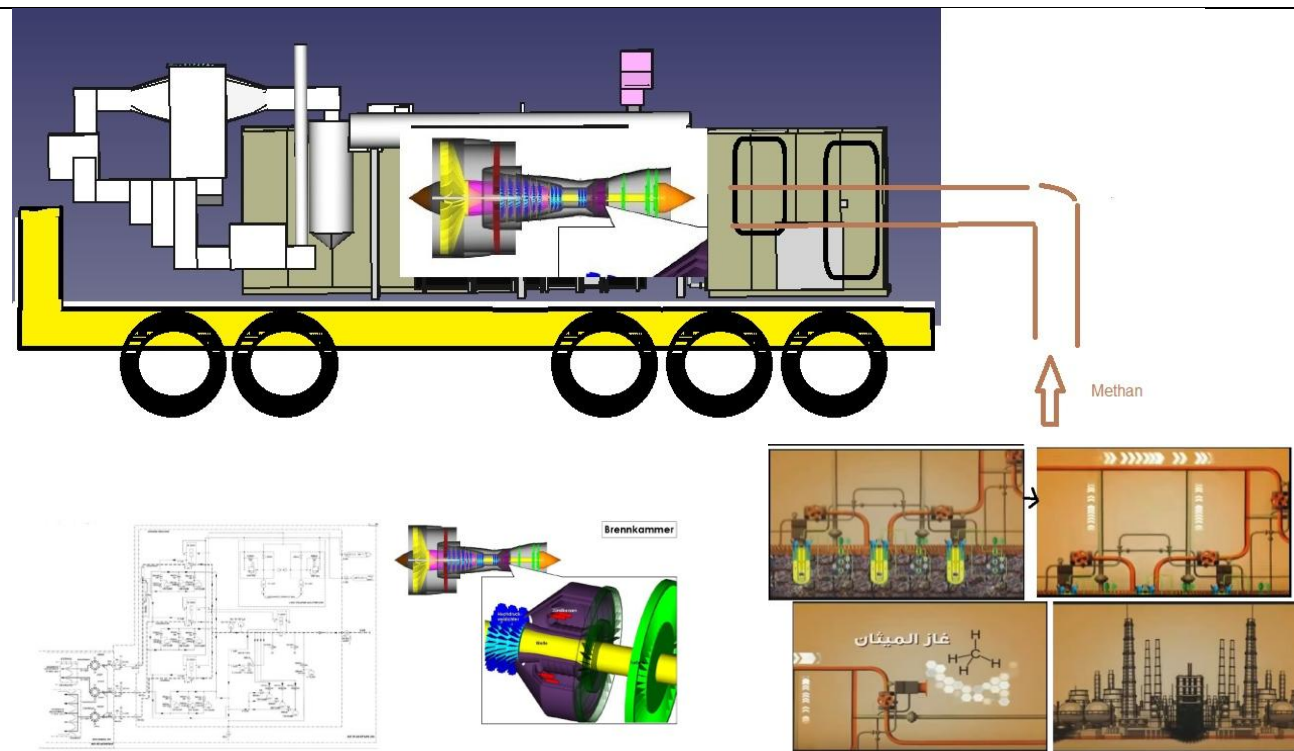
Laboratory website: <http://www.aecenar.com>

Supervisors (contact persons)

Samir Mourad, smourad69@googlemail.com, Mob. +961 76 341 526

Ras Masqa/Tripoli, 21.02.2018

Thesis title: Design, Regulation and Test of gas turbine for a biogas power plant



Working packages:

- Reading and searching about the subject (2 Weeks) (<http://www.aecenar.com/publications>)
- Detailed design for the cylinder, rotor, and blades (3 Weeks)
- Waste incineration based regulation concept for the turbine (e.g. air supply regulation) (3 weeks)
- Support of the CNC machine based manufacturing of the turbine (4 weeks) (- 15 June 16)
- Test of the delivered turbine with the NLAP (2 weeks) (- 30 June 16)
- Calculation of the efficiency of the turbine (1 Week)
- Documentation (4 Weeks).

Key Words: alternative energy, FreeCAD / AutoCAD, gas turbine regulation, cylinders, rotor, blades, CAM (Computer Aided Manufacturing)