

Project title: “Study on technology to convert diesel fuel system of medium size boat from using diesel to using mix of coconut oil, additives and DO (diesel oil)”

❖ **Objectives:**

1. Designing, manufacturing devices for mixing coconut oil, additives and DO;
2. Convert diesel fuel system of medium size fishing boat from using diesel to using mix of coconut oil, additives and DO.

❖ **Contents:**

1. Survey on data of thermodynamic of mixing energy from coconut oil, additives and DO.
2. Survey on economic figures, environment of the mixing energy on the AVL device and identifying formula for the mixing energy.
3. Manufacturing devices of mixing coconut oil, additives and DO.
4. Converting diesel fuel system of medium size fishing boat from using diesel to using mix of coconut oil, additives and DO
5. Testing the system and reporting.

❖ **Implementation period:** 5/2009-5/2011

❖ **Implementation person:**

Dr. Phung Minh Loc, Faculty of Transportation Engineering

❖ **Results:**

1. Data of heat, temperature, viscosity, density of the mixture.
2. Data of economic figures (fuel consumption rate – g/l), environment (opacity of exhaust fumes – K%)
3. Formula for the mixture energy
4. Devices for mixing coconut oil, additives and DO
5. Converted fuel system on medium size boat (mixing devices, filters, valves and pipes);
6. A process using the mixture.
7. Report on using the system in medium size boat
8. Two articles published on recognized journal(s)

❖ **Applied places:**

1. Faculty of Transportation Engineering
2. Fishing boats in Khanh Hoa province