

# **A STUDY INTO REDUCING ENERGY USAGE FOR AN AIR CONDITIONER BY USING THE NATURAL HYDROCARBON REFRIGERANT**

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## **ABSTRACT**

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This project is a case study into the ways of reducing energy consumption for air conditioners by using the natural hydrocarbon refrigerant compared to the now day R22 refrigerants. Most of us knew that refrigerants are substances that absorb heat from the surrounding and releasing it into the outside environment. However these two refrigerants has the same function but in this project, hydrocarbon is proved to be a much better conductors of heat which can absorbs much heat compared to the R22 refrigerant. Besides able to absorb more heat, hydrocarbon refrigerants are able to reduce work load on the air conditioner compressor unit due to it works on a lower operating pressure compared to the R22 refrigerant. Wonder how does these two points relate? The case study will be held at INTI International University, Accommodation block, Aristotle Hall which is a 5 floor building including the ground floor and a total of 190 units of air conditioners. Further less a total savings of 20% from the air conditioner bills will be calculated with the help of expertise and skillful mentors.