ABSTRACT

This research proposal is about the implementation of a training module for teaching a Toyota Prius vehicle inverter 2010 in Automotive Mechanical Workshop of the Faculty of Education, Science and Technology of the Technical College North. The research objective is to complement the learning process in the career of Automotive Maintenance Engineering in FECYT. The methodology that was chosen is a literature - practice applying the inductive-deductive methods, synthetic and analytical science. The module of the inverter system will lead to understanding of the parties which are: high voltage battery, voltage boost converter, motor generator 1, generator 2 engine, air conditioning compressor and 12 volt battery done the following process leaves the high voltage battery goes a 210V DC converter through the high tension which rises to 500V DC after passing through the inverter three phase transforming current backtracking MG1 and MG2 to to run the electric vehicle is totaly and causes it to reverse charge the high voltage battery. The power supply of auxiliary equipment of the vehicle, such as control panel, room lights, sound equipment, lights exterior, lights, air conditioning system (except the compressor A / C) as well as the ECU, is based on a 12 V module implementation CC.La didactic aims to display all its components, allowing for testing handling operation, intended to motivate the learning of the inverter system 2010 Toyota Prius better results in knowledge and thus be more competitive and getting more professional evaluation of this branch contributing to the improvement of university education, complementing the workshop of the Engineering in Automotive Maintenance of the institution.