

AN AFFORDABLE HYBRID AUTOMOTIVE TRANSMISSION

It is estimated that there are more than 70 automobile models on the road today that use hybrid transmission technology for improving the efficiency of automobile transportation. Most of these transmissions are of the electric hybrid type and are expensive to purchase, and costly to maintain. The original purchase price for a vehicle with an electric hybrid transmission is approximately \$8k more than a comparable vehicle without a hybrid transmission and the replacement cost for electric batteries is about \$3k every five to ten years with an associated disposal problem for the batteries themselves. This situation has resulted in hybrid vehicle technology being accessible to the few who are able to afford the vehicles and who normally consider themselves to be “energy buffs”. By and large, hybrid vehicle technology has not been made accessible to the common automobile owner. This technology is aimed at developing a hybrid vehicle transmission that: 1) reduces the first time buying cost of the vehicle by thousands of dollars, and 2) eliminates the need for replacing expensive and environmentally dangerous batteries thus reducing maintenance costs. It so happens that this technology also eliminates conventional disc brakes that wear out and need replacement. Furthermore, this technology eliminates the reverse gear in the mechanical transmission path thus reducing the cost associated with designing and building this part of the mechanical transmission. This technology will rapidly expand the use of energy-efficient automobiles as an affordable hybrid-transmission will be made available for every consumer. With over 60 million vehicles produced every year worldwide this idea will have a tremendous impact on worldwide energy consumption and the environment.

POTENTIAL AREAS OF APPLICATIONS:

- Automotive

PATENT STATUS: Provisional Application on file

INVENTOR(S): Noah D.Manring; Junhee Cho

CONTACT INFO: Wayne McDaniel, Ph.D.; McDanielWC@missouri.edu ; 573-884-3302