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EDEXCEL LEVEL 7 BTEC ADVANCE EXTENDED DIPLOMA IN STRATEGIC MANAGEMENT AND LEADERSHIP

UNIT 16 RESEARCH METHODS FOR STRATEGIC MANAGERS

PROJECT PROPOSAL

WITRIC

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WEST LONDON COLLEGE OF BUSINESS AND MANAGEMENT SCIENCES
A. PROVISIONAL TITLE

WITRIC

Winder electrical
Power transfer technology
B. HYPOTHESIS FOR THE PROJECT
My new concept for the production of WITRIC will be a revolutionary change in the market, it will be beneficial, cost effective and will reduce the wastage of an electricity and it will be helpful for the winder electronics to capture the maximum share of the market in London.
C. BRIEF DESCRIPTION OF THE TOPIC AREA

The concept of WITRIC means to transfer the electricity without the use of wires. It is a unique product which will be very much beneficial for the consumers and the electric supplies companies. I had a fantasy from many years that there should be a product which will transfer an electricity without the hazardous use of wires and have thus developed the unique concept of WITRIC which will be helpful to transfer an energy without the use of wires. I will aim to prove that my hypothesis will be valid for this product and I will prove my research to be true by using different methods of research within allocated time.

Now a days an electricity is an important part of human life. Today no one can imagine a life without an electricity. Almost all of the electrical appliances which are used in homes, industries, transportation and other walk of life require energy and this energy is used to transfer with the help of wires. Today every field and sector has made progress and development in their field and they are developing lot of techniques to make a progress in their sector, a lot of research is taking place in many different sectors so there should be a need to make development in the field of electronic sector so that the electronic industry can also flourish and make a further advancement in their field. Now a days our power generating systems usually waste more than half of it’s resources and this loss of energy is mainly occurred in the process of transmission and distribution. Due to a recent study our electrical grid distribution system cause a loss of normally 25% which means that our current system is only 75% efficient. More efficient and effective energy systems are required by both of the developed and underdeveloped countries to meet the requirements and to boost their economy.

WITRIC is a product which will be use to transfer energy without wires to the remote objects. The wireless energy transfer which is also known as wireless energy transmission means a process which will usually takes place in any system in which an electromagnetic energy will be transferred from a source of power (most probably a coil) to an electric load without interconnecting the wires. WITRIC is a wireless product which will be highly efficient over distances and it can be range from several centimeters to meters. In the process of WITRIC the power will be transferred from the main power source to the antennas installed in the houses and this product includes copper coils placed on the ceilings and these copper coil produces weak electromagnetic fields and the electrical devices which can react to this magnetic fields will soak up the energy like laptops, mobiles, refrigerators, televisions, e.t.c. If any of the home appliances were charged and does not need any further electricity than the energy not transferred to the specific product will be re-absorbed by the source antenna. Magnetic waves are suitable for home appliances and different common materials does not interact with the magnetic waves.

The concept of wireless electricity is same as to a concept of radio in which a wireless information is travelled in a vast area to multiple users but in wireless technology the area of transferring the electricity is not too big.
This diagram shows the working of WITRIC. In this diagram there are many electronic goods are shown which will charge themselves with the use of WITRIC.
D. REASONS FOR YOUR INVESTIGATION

I want to see Winder electrical company to gain new heights in the field of producing electrical products and to capture a large share in the market. The reasons for my investigation is to get rid of bundle of cables lying in the houses and to get rid of switch sockets, this will reduce the cost and will be more efficient and effective.

Wireless electricity can also be helpful in reducing the wastage of energy which means that when there will be no need of energy than the extra energy will be re consumed by the power source. The other reason for my investigation is to reduce the risk of fire which normally causes due to short circuits in wires and normally it is very dangerous for human life. This technology will also reduce the usage of heavy batteries which are too costly and less efficient because these batteries have to be recharged and it usually takes lot of time but with the use of wireless technology these batteries need not to be recharged as they will be charged themselves when required. WITRIC also diminish the use of expensive wiring as usually it is very much difficult to do wiring in houses or any other workplace and it is also too lengthy and too costly process, so wireless energy can also reduce our cost, time and will be more effective and efficient. This technology is more environment friendly by using efficient electric grid power directly instead of inefficient battery charging. The production of WITRIC will be more reliable because it will never run out of battery power and it will also reduce the product failure rates by fixing the weakest link and it will also be more convenient because there will be no manual recharging of batteries and it will eliminate the usage of unwieldy and costly power cords.

The other feature of WITRIC is that it’s strong coupling with high resonant provides high efficiency over distance. The non radiative energy transfer in wireless energy is also safe for animals and human beings.
E. AIMS AND OBJECTIVES (what are you hoping to achieve?)
I have a strong believe that the concept of my product will become reality soon and this product will be very much beneficial for the consumers, industrialists, and electrical supplying companies and I am hoping to prove this concept in terms of quality control, marketability, cost effectiveness, and it will be very much praised in the international market. Due to rapid increase in the demand of electricity this product will make a rapid growth in the whole world. The objective of wireless electricity is to transfer electricity without cables. Wireless electricity will be useful where the interconnecting wires are hazardous, inconvenient or impossible. The nature of power delivery will be omni directional. By using wireless electricity we can get rid of using batteries which are more expensive and less efficient. The technology of wireless electricity can also be helpful in charging electric cars by simply placing a wireless coil in the garage and they can be charged when needed, this will also promote the usage of electronic cars which are enviroment friendly and cost effective. The development of wireless electricity can also be helpful for industries in charging their different kinds of products like robots, machines, computers, automatic guided vehicles, cordless tools and equipments. This technology can also be helpful for charging those machines or robots which are used for drilling or minning purposes and for equipments used under water.
I am very much hopeful to make my research question true and valid and I will present my research to the Winder electrical company so that they can implement this research and make a product which will be similar to my analysis.
F. YOUR PROPOSED METHODS OF RESEARCH (METHODOLOGY)
The method of my research will be a literature review, gathering information from the internet and visiting websites of different electricity supplying companies. I will also likely to prepare a questionnaire and distribute it among different persons to gather information that whether they would like to introduce this kind of product in their life and further that information will be sent to my organization so that they can further take a look on the feasibility of this product. I will also like to contact with different researchers to gather information that whether this product will become a reality. I will investigate different kind of experiments to check the validity of my concept.
G. CREDIBILITY AND VALIDITY OF RESEARCH QUESTION

To check the credibility and validity of my research question we have to conduct various types of laboratory tests, we have to interact with number of researchers to develop a point of view that whether this research will be a valid one or not. We have also to develop a questionnaire and distribute it among different groups of people to know that whether they want to use such kind of products in their daily life and we have also to tell them about the advantages and disadvantages of this product so that we can get a better feedback about this product.

There can be some health and safety issues in transferring electricity without wires but these hurdles can be removed by introducing the concept of coupled resonators. In the concept of couple resonators two resonant objects of the same resonant frequency will tend to exchange the energy efficiently while interacting weakly with off resonant objects. The concept of coupled resonators exactly fits with an example of a child on a swing; it is known as mechanical resonance in which a child pumps her legs at a natural frequency.
QUESTIONNAIRE

NAME
ADDRESS
CONTACT NUMBER
E MAIL ADDRESS

QUESTION NO 1
WHETHER YOU LIKE A WIRELESS TECHNOLOGY?
   YES
   NO
   NOT SURE

QUESTION NO 2
HOW MANY KIND OF WIRELESS PRODUCTS OR SERVICES YOU USE IN YOUR DAILY LIFE?
   MANY
   FEW
   NOT SURE

QUESTION NO 3
DO YOU USE HIGHER NUMBER OF ELECTRICAL GOODS IN YOUR DAILY LIFE?
   YES
   NO
   NOT SURE

QUESTION NO 4
DO YOU WANT TO GET RID OF THE BUNDLE OF CABLES LYING IN YOUR HOME OR WORKSPACE?
   YES
   NO
   NOT SURE

QUESTION NO 5
DO YOU WANT TO INSTALL A PRODUCT WHICH CAN TRANSFER ENERGY WITHOUT WIRES IN YOUR HOUSE AND WORKPLACE?
   YES
   NO
   NOT SURE
QUESTION NO 6
DO YOU HAVE ANY ISSUES REGARDING THE TRANSFER OF ENERGY WITHOUT WIRES?
   YES
   NO
   NOT SURE
H. QUANTITATIVE AND QUALITATIVE DATA

The quantitative data which I am using for my research will include graphs, empirical relationships, linear model, and non-linear model. I will also account for any other statistics which will be helpful for my research.

The qualitative data which I will be using for my project is discussions, interviews, and surveys conducted by myself or by some other researchers.

This graph shows the domestic electricity consumption by the people of united kingdom from year 1998 to 2006.
<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>% efficiency</th>
<th>Annual wastage in UK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The total efficiency is low. Notice that, for similar percentage losses, the actual losses get smaller later on in the system. This is because there is less energy being transmitted at the later stages.</td>
<td>28 (74)</td>
<td>930 billion kWh, 79.9 Million TOE, 474 Million tonnes carbon dioxide</td>
</tr>
</tbody>
</table>

Table 1: Losses in the electricity system. The unit tonne of oil equivalent (TOE) is a useful way of comparing energy use - relating it to fuels. 1 TOE equals 11,634 kilowatt-hours. In the UK, 1 kWh produces 0.51 Kg of carbon dioxide; this takes into account the different ways in which electricity is generated (15% is generated without producing any carbon dioxide).

This table shows the actual losses occurred in the process of distributing the electricity within united kingdom. Thus it also shows the effectiveness of system which are being used in distributing electricity.
I. TERMS OF REFERENCE
I have a vision to see my product successful and my company to reach the new heights in all over the world. I have a strong believe that my concept of WITRIC is very much unique and will be appraised. I also believe that my idea will be cost effective and efficient enough to help my company to gain enough market share and to be a real threat to it’s competitors.

<table>
<thead>
<tr>
<th>ACTIVITY OF OPERATION</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>6</th>
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<tbody>
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<td>A</td>
<td>generate the idea</td>
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<td>develop the hypothesis</td>
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<td>prepared proposal</td>
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<td>D</td>
<td>develop and hand over questionnaires</td>
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<td>E</td>
<td>gather quantitative date</td>
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<td>gather qualitative data</td>
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<td>preparation of final project</td>
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</table>
J. DEVISE A CODE OF ETHICS

Ethics is a basic need of a business. The company should keep in mind the ethical values and should consider the health and safety issues of its customers. Many people will have the health and safety issues as they knew that there was a transfer of electricity without wires but we should give them a demonstration of our product and to prove them scientifically that this product will not be harmful for the human beings as well as animals and also that it will be a better choice for our environment.