WIRELESS
ELECTRICITY

Introduction

Witricity is short for Wireless Electricity.It is at the forefront of technological innovation in the world of modern electrical enigineering.As the name suggests, witricity involves WireLess transfer of power. This event though being a crude attempt at this field, is aimed at arousing the interest of students in witricity.

Idea

Transfer of power from one point without wires can achieved by the Magneting Coupling of two coils, one transmitting coil and other receiving coil.When an alternating current is passed through the primary coil, it produces a pulsating flux.When this varying flux links with the secondary coil, it produces an alternating EMF hence an alternating current in it.

Task

The main task that the participants have to perform in this event is to design the secondary coil .The participants have to consider an array of factors during the design so that there is maximum transfer of power from primary to the secondary.

The participants have to choose that design which permits maximum flux linkage in the secondary coil while using the as little wire as possible.

Following Empirical Formula would be used to judge the designs :

$$\frac{Di}{L}$$

Where :

Di is the distance in cm from the primary at which 1 Volt is induced in the secondary .

L is the length of wire used.

24 AWG winding wire and material for frame will be provided by the organisers.

Event Format

There will be two rounds in this event .

There is no limit to the number of teams that can participate in the first round.There will be three members in each team.

Round 1 will be MCQ quiz.The questions in this quiz will check the participants' electrical engineering concepts. Only five teams will be selected for the next round.

Round 2 is the main round of this event in which the participants have to perform the tests .Winner will be decided on the cumulative score of each team from the two rounds.

In case of tie, the winner would be decided by an oral quiz.

Prizes and Certificates

First prize	:	Rs. 5000/-
Second Prize	:	Rs. 3000/-
Third Prize	:	Rs. 2000/-

The teams reaching the second round will receive the certificate of participation.

Contact

Event Co-ordinator
Mr. Ubaid Bashir

Event Managers
Tushar Srivastava   09796534624
Pitta Anil Reddy   09086801660

For registrations and more details visit
www.techvaganza.org/events/creatives/witricity

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