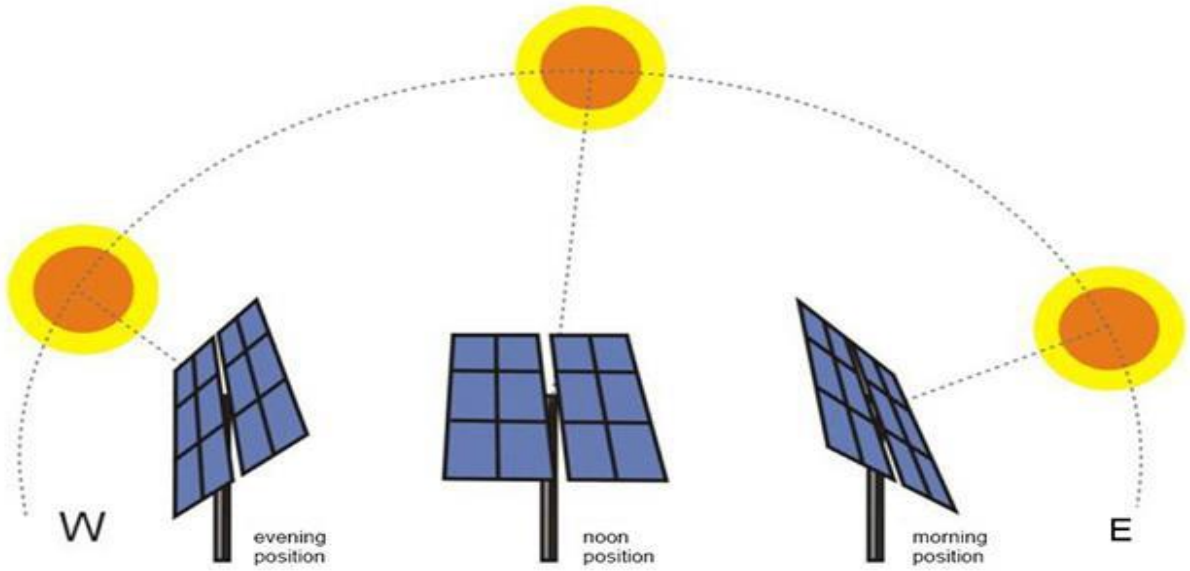
DRISHTI

A Revolutionary Concept

Problem Statement For Solatronics 2021

- 1) Design electronic circuit diagram to control a sun tracking solar panel. Sun tracking solar panels are solar panels used for out-putting maximum power by continuously aligning it in direction of sun.
- 2) List all the electronics component which will be needed with reason. (Why it is needed)
- 3) If any programming/coding is needed to steer the solar tracker panel than create a logic block diagram representing it. Assume microcontroller is properly interfaced from starting.
- Each of the following capabilities will have extra point advantage:

1- A) Develop logic that can enable sun tracker solar panel to turn off automatically after sun sets and turns on at sun rise without manual input. Use appropriate components in most efficient manner.
1-B) Given 2 solar panels of 5W at 12v, how will you connect them to get 5v output and 830 mA output current in most efficient way. Assume proper sun condition. Try illustrating using circuit diagram.



Instructions: The first three questions are compulsory to attempt else your work will not be evaluated for competition. First three questions are worthy of 2 points each.
The latter two questions each have 3 points and 1 point each.
The total points which can be gained are 10. Teams with maximum points win.
For solution you can use draw.io for creating block diagram and add the clear picture of logic diagram.
The solution is to be submitted in pdf form. It should contain team name, member's name, roll number and answer to each question. Each answer should be labelled with its number and should be on separate page in pdf.