may be made to these embodiments without departing from the broader spirit and scope of the various embodiments.

[0052] In addition, it will be appreciated that the various operations, processes, and methods disclosed herein may be embodied in a machine-readable medium and/or a machine accessible medium compatible with a data processing system (e.g., a computer system), and may be performed in any order (e.g., including using means for achieving the various operations). Accordingly, the specification and drawings are to be regarded in an illustrative rather than a restrictive sense.

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[0053] Miscellaneous comments to add clarification on working of the device :

The specification of material of the shading unit is one of plastics with an example plastic being poly ethylene and another example being Poly propylene in one embodiment

The drive for the cable spools as shown in Figure 12 can be provided directly by a stepper motor in another embodiment other than the one shown in figure 12 wherein the need for clutch is avoided .

In the place where the person to be shaded is present two reference points are marked to form a straight line on the ground to give an X axis . A third point is marked perpendicular to this straight line starting from the first point, to form a line which is Y axis . The perpendicular distance of the person to these lines gives the X and Y co ordinates which is calculated from the image captures by the cameras. The ground is divided into square areas as in a graph paper using the above X and Y axis lines which enables the computer to calculate the position of the person to be shaded. The grid map

is in the image captured by cameras and analyzed by the computer and is not needed to be present on the ground.

A joy stick is used as a switching device to move the image of a pointer on the computer screen over the image of the ground where the person to be shaded is present and the location of the pointer is interpreted by the computer to calculate the next position needed for the shading unit that is shading the particular person so the shade keeps synchronized with movement of the person being shaded.

The cables used in the above device are made of cables having different colors to enable correct connection to required spool when setting up the device.

16. The device as claimed in claim 1:

wherein person to be shaded as claimed in claim1 also refers to animals and objects to be protected from sun and wherein shading device is used for shading and comfort of players in stadium, horses and animals in race course, shading recreating people on beach in hot climates, construction workers in building by using one of cantilever support based shading unit on building, roads and towers in sea rigs and large ship platform, agriculture and farm workers on land.

17. The device as claimed in claim 1:

wherein cables have color coding with connector sockets also color coded to enable easy assembly and correct attachment of drive cables to its correct drive spool, as large number of cables are involved.

18 A method of shading people in large open area at low cost and low energy consumption, using shading units of small size being a few times more than size of person shaded, held at large height without obstruction to view, by matching shading unit position to get shade pattern of small required area on ground corresponding to pattern of presence of persons to be shaded with said pattern of presence of person captured as image by camera on gimbal and image of shading units captured by camera on gimbal as feedback to enable correct positioning of shading unit subjected to wind at large heights.

19. A device to provide protection and comfort from bright hot sunshine in large open area and locally cool the place of persons presence thereby prevent health hazards of bright sun shine like skin cancer and allergy and avoid discomfort of work and play, at

16. The device as claimed in claim 1:

~~The device as claimed in claim 1:~~ A method of providing shade by using the device ~~Wherein person to be shaded~~ as claimed in claim1 to provide shade ~~also refers~~ to animals and objects to be protected from sun ~~and wherein shading device is used for~~ ~~shading and comfort of players in stadium~~, horses and other animals in race course, shading recreating people on beach in hot climates and wherein the above method is used for shading construction workers in building by using one of cantilever support based shading unit on building, construction workers in roads and workers in towers in sea rigs, and in ~~large~~ ship platform, agriculture and farm workers on land.

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