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Automatic solar fire extinguisher

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Solar automatic fire tracker and extinguisher system is a new innovation technology and designed by our technology station (process, energy and environmental technology station, University of Johannesburg) in combination with the characteristic of heat and fire detection apparatus. This Oil and gas industrial automatic fire extinguisher have a platform with 90 degree of freedom and the servomotor base Omni wheel will be passive or active, fixed or steerable according to system logic control unit to target a fire source. To get the system more effective and flexible, the wheel will regulate with three characteristics: 1. Wheel spinning, 2. tilting of gimbal, 3. AVR driving control. The whole system will operate by Solar energy source because it can be used in remote areas where it is too difficult to extend the electricity power grid connection to the fire extinguisher (solar extinguisher is not fix unit, it will always travel from one place to another place to find photon and detect flame). The most fun about the project is to watch him navigate from one light source to another light source trying desperately to stay alive. This character is the secondary operation when the battery status under the level of 60%.

Biography

Asit Kumar Dey is a PhD candidate, under the supervision of Professor B Twala (Director: intelligent system, University of Johannesburg). At the same time currently I am working in the Renewable energy technology station at the University of Johannesburg where I leads processing Innovation projects. I have worked on Energy sector in a number of different roles including operations, procurement, engineering development, design, commissioning and project management with over 13 years' experience.

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