"Raksha": System for Prevention of Electrocution and the Hazardous Effects of Short Circuits

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The invention described is one that can effect the prevention of the hazard of electrocution (electric shock) wholly and substantially, and can also effect the mitigation of the hazardous effects of short circuits, 85% of which are caused by phase to ground faults. This is in addition to the capability of the apparatus to perform as a distribution transformer, when implemented at the Electricity Board level. Further, the apparatus also functions as an inverter (solar or otherwise) and /or voltage stabilizer when implemented at the household level. The decisive advantage of the system over prior art is evident from the fact that people touching the live wires from the system's output are safe from the hazard of electrocution, even if they are not wearing any sort of protective gear, and without any interruption of power supply. The principle of the apparatus lies in the provision of a transformer of special construction and associated circuitry to detect and chop specific components of current, in order to let the person work on live conductors without risking electrocution. The invention is of paramount importance if implemented in the Electricity Board level. It can also be installed in individual houses.