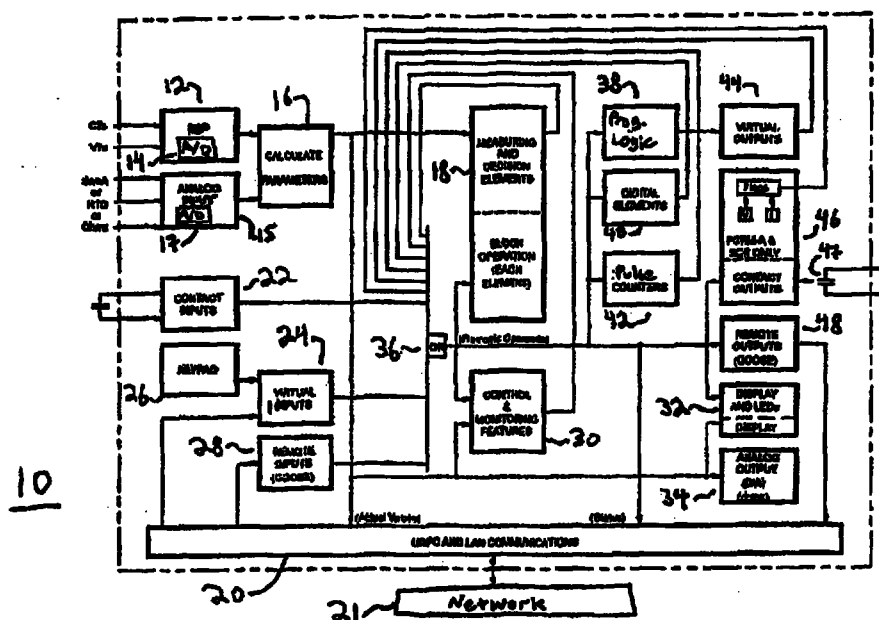




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(54) Title: DISTRIBUTED LOGIC IN MULTIPLE PROTECTIVE RELAYS



(57) Abstract

A protective relay, system, and relay operation method which allows logic functions to be distributed amongst multiple protective relays associated with a power distribution system. The protective relays include communications ports for exchanging messages over a peer-to-peer communications network, and include programmable logic. Each protective relay receives logic operands contained in the messages from remote protective relays, executes logic equations using the received operands, provides protective control if needed, and outputs operands to other protective relays.