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(54) Title: COGNITIVE MOBILE AD-HOC NETWORK

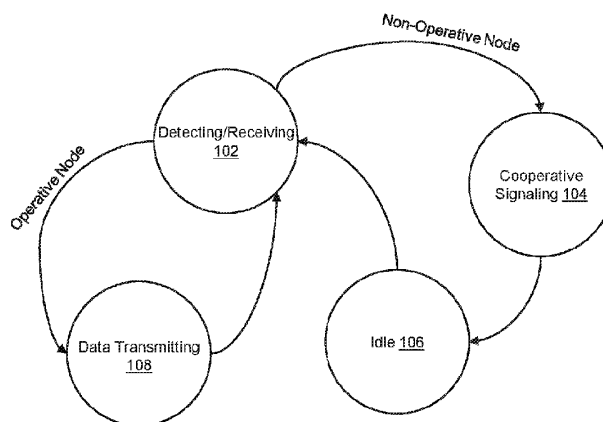


FIG. 5

(57) Abstract: A MANET has a plurality of nodes and operates in the presence of another radio network. Each of the MANET nodes obtains frequency channel information associated with the radio network from detected transmissions of the radio network. Each node of a first subset of the MANET nodes transmits the obtained frequency channel information according to a cooperative signaling scheme. Each node of a second subset of the MANET nodes receives the obtained frequency channel information transmitted from at least some of the nodes of the first subset. For each node of one or more nodes in the second subset, the node forms a channel map based in part on the received obtained frequency channel information and the frequency channel information obtained by the node. In certain embodiments, at least one node of the one or more nodes in the second subset operates its transceiver according to the channel map.

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