

ELECTRONIC KEY SYSTEM FOR VEHICLES ACCESS BASED ON PORTABLE DEVICES

Abstract

This invention relates to a symmetric key-based generation and distribution system and method for a vehicle access authentication framework comprising: a first device operated by a car owner, a second device operated by a delegated user, and a third device residing in a vehicle. The first device is configured to: request for an authentication key from the third device, the request for the authentication key comprising an ID of the first device, id_O ; receive an authentication key K_{id_O} from the third device;; and generate a delegated authentication key K_{id_U} based on authentication key K_{id_O} and an ID of the second device in response to receiving a request for delegated authentication key from the second device, the request for delegated authentication key comprising the ID of the second device.

Figure 1 to accompany the abstract