

A Secure Authentication Protocol among Mobile Phone and Wireless Sensor Networks

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Abstract— The interaction between mobile phone and wireless sensor networks has increased these days due to the WSN emergence and its ubiquitous nature. Through cellular network, a user can access gateway of wireless sensor networks and gets the data. This paper proposes a secure authentication protocol where a user is strongly verified before accessing the data. The secure authentication proposed protocol provides many security principles to the users for instance user, mutual authentication, and secure session key establishment. Furthermore, security analysis shows that the proposed protocol possesses many advantages against popular attacks, and achieves better efficiency at low computation cost.

Keyword— Authentication protocol, WSN, Mobile network, Gateway node



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