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Sleeping based topology control for mobile networks

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ABSTRACT

Topology control aims to provide more spatial reuse and power conservation while keeping network's connectivity. However just a few number of efforts focused on the issue of topology control with mobility. Some of topology control algorithms (e.g. CEC) try to provide more energy conservation by sleeping the redundant nodes. This paper presents a sleep-based topology control algorithm, which is in fact a modified CEC. We have simulated our proposed algorithm in both of static and dynamic networks. Our results show that the proposed algorithm outperforms CEC.

INDEX TERMS

- IEEE terms

Batteries , Communication system control , Computer networks , Costs , Energy conservation , Hardware , Mobile computing , Network topology , Routing protocols , Sleep

- INSPEC

- Controlled Indexing

mobile radio , telecommunication control , telecommunication network topology

- Non Controlled Indexing

mobile networks , mobility , sleeping based topology control , topology control algorithms

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