## DYNAMIC CLUSTER HEAD ROUTING PROTOCOL IN WIRELESS SENSOR NETWORK

M.H.M. Nafas, M.A.C. Akmal Jahan and A.L. Hanees\*

Dept. of Mathematical Sciences, Faculty of Applied Sciences,

South Eastern University of Sri Lanka

\*hanees.al@gmail.com

Wireless distributed based microsensor systems will have reliable monitoring in variety of environments for both civil and military applications. In this research work, we look at communication protocols, which can have significant impact on the overall energy dissipation of the networks in these systems. Based on the findings that the conventional protocols of direct transmission, minimum-transmission-energy, multihop routing, and static clustering may not be optimal for sensor networks. Therefore we propose DCHRP (Dynamic Cluster Routing Protocol), a cluster-based protocol that utilizes instance cluster creation to evenly distribute the energy load among the sensors in the network. DCHRP uses instance clusters to enable scalability and strength for dynamic networks. In addition to this, DCHRP is able to reduce the energy wastage evenly among the sensors, and allowing easy dynamicity in WSNs.

**Keywords:** WSNs, DCHRP