ABSTRAK

Routing protokol Epidemic adalah salah satu protokol *routing* yang ada di jaringan oportunistik, yang mekanisme pengirimannya dilakukan dengan cara membanjiri jaringan dengan pesan yang ada membuat tingkat penyebaran pesan dan sekaligus beban jaringan menjadi tinggi. Melihat kinerja protokol *routing Epidemic*, ada ide untuk membatasi jumlah pengiriman pesan dengan mengirimkan pesan bedasarkan nilai ketertarikan antar *node* dengan cara membuat setiap *node* memiliki ketertarikan yang berbeda-beda, muncul protokol *routing Epidemic WithInterest Community* , penyeberan pesan protokol *routing* ini dilakukan secara *flooding* (membanjiri) seperti protokol *routing Epidemic* namun di batasi dengan hanya memberikan pesan pada *node* dengan *interest* yang sama atau hanya pada *node* yang memiliki teman satu komunitas dengan *interest* sama dengan pesan yang akan di terima.Protokol *routing Epidemic WithInterest Community Improved Centrality* adalah *routing* protokol yang mencoba menekan beban jaringan dari protokol *routing Epidemic WithInterest Community* dengan menambahkan *centrality* yang di adopsi dari Protokol *routing BUBBLE Rap* yang menyebarkan pesan bedasarkan *centrality node*.

Dalam penelitian ini matrik unjuk kerja yang di gunakan adalah *Total Relayed, Total Delivered Interest* dan *Average Convergence Time*. Protokol *Routing Epidemic WithInterest Community Improved Centrality* menunjukan unjuk kerja yang baik dengan mengurangi beban jaringan yang di lihat dari *total relayed* pesan yang berada di bawah *total relayed* pesan Protokol *Routing Epidemic WithInterest Commnity*. Selain beban jaringan, *Total Delivered Interest* Protokol *Routing Epidemic WithInterest Improved Centrality* juga lebih baik dibanding *Total Delivered Interest* Protokol *Routing Epidemic WithInterest Community*, namun Protokol *Routing Epidemic WithInterest improved Centrality* memiliki waktu penyebaran pesan yang sedikit lebih lama dibandingkan dengan Protokol *Routing Epidemic WithInterest Community*.

ABSTRACT

The routing protocol of the Epidemic is one of the routing protocols present in the opportunistic network, whose delivery mechanisms are carried out by flooding the network with existing messages, making the message spread level and network load as High. In view of the Epidemic routing protocol performance, there is an idea to limit the number of message delivery by sending a message based on the value of Internode interest by making each node have different interests, emerging routing protocols The epidemic WithInterest Community, the message dissemination of this routing protocol is performed flooding (flooding) such as the Epidemic routing protocol but is limited by simply delivering messages on nodes with the same interest or only on nodes that Have a community friend with the same interest as the message will be received. The Epidemic WithInterest Community Improved Centrality Routing protocol is a routing protocol that attempts to suppress network loads from the Epidemic WithInterest Community routing protocol by adding a centrality that is in adoption from the routing protocol The BUBBLE Rap is spreading the message based on the centrality node.

In this research the current performance of the work in use is Total Relayed, Total Delivered Interest and Average Convergence Time. The WithInterest Community-Improved Centrality Routing protocol has demonstrated a good performance by reducing the network load seen from the total relayed messages that are under total relayed the message of an Epidemic WithInterest Routing protocol Commnity. In addition to network loads, Total Delivered Interest of the The Routing protocol Epidemic WithInterest Improved Centrality is also better than the Total Delivered Interest of the Epidemic WithInterest Community Routing protocol, however the Improved Centrality has a slightly longer message transmission time compared to the Epidemic WithInterest Community Routing protocol.