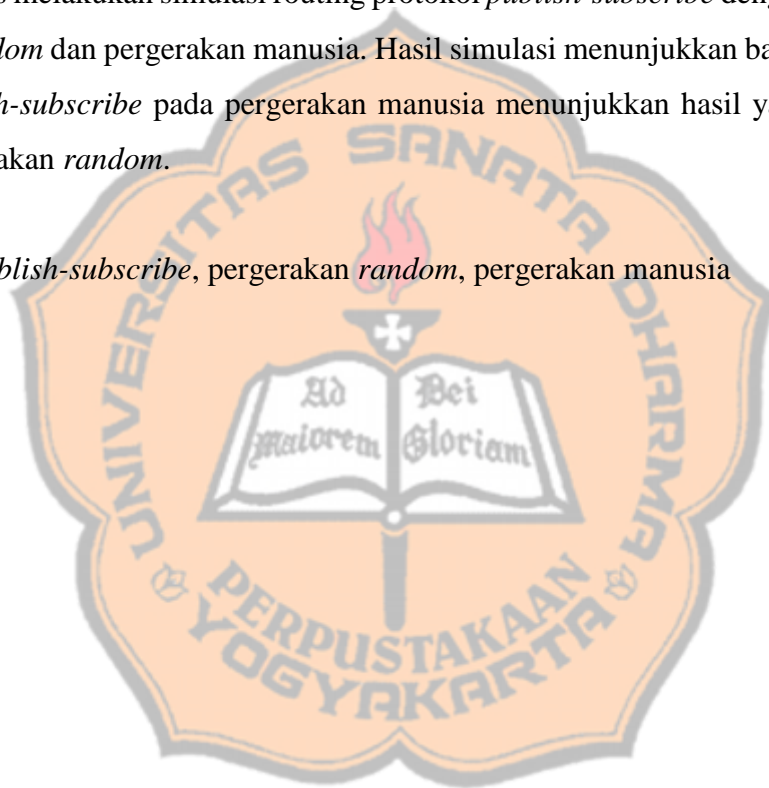## ABSTRAK

Routing protokol *publish-subscribe* adalah sebuah paradigma pengiriman pesan secara *multicast* yang tidak mengenal *source address* dan *destination address*. Pada mekanisme *publish-subscribe*, pesan dibuat oleh *publisher node* dan kemudian dikirimkan melalui sebuah *channel*. Pesan tersebut ditujukan kepada *subscribe node* yang telah melakukan *subscribe* pada *channel* tersebut. Pada penelitian ini dilakukan pengukuran unjuk kerja routing protokol *publish-subscribe* dengan menggunakan *known subscription filter* dengan berbagai kombinasi *queue policy*. Parameter unjuk kerja yang diukur adalah *delivery rate*, *latency*, dan *number of replicas*. Penulis melakukan simulasi routing protokol *publish-subscribe* dengan menggunakan pergerakan *random* dan pergerakan manusia. Hasil simulasi menunjukkan bahwa kerja routing protokol *publish-subscribe* pada pergerakan manusia menunjukkan hasil yang lebih optimal daripada pergerakan *random*.

Kata kunci: *publish-subscribe*, pergerakan *random*, pergerakan manusia

ABSTRACT

Publish-subscribe routing protocol is a multicast message forwarding paradigm that does not need a source address and destination address. In publish-subscribe, the message, that is generated by a publish node, is sent via a channel. Then, the message is destined to the subscribe node that has an interest in a particular channel and already subscribed to that channel. In this research, we used a known subscription filter, with a combination of queue policy, to complete the routing protocol performance measurement. The measured performance parameters are delivery rate, latency, and the number of replicas. The movements that are used for this research is random movement and human movement. Experimental results show that the publish-subscribe routing protocol on human movement outperforms publish-subscribe routing protocol on random movement in terms of all parameters.

Keyword: publish-subscribe, random movement, human movement.