

Comparison of episodes of mosquito borne disease: Dengue, Yellow Fever, West Nile, and Filariasis with Decision tree, Apriori Algorithm

Seung Hye Song*, YiJeong Choi*, and Taeseon Yoon**

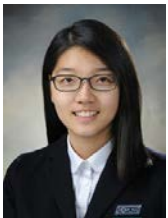
*Natural Science, Hankuk Academy of Foreign Studies, Wangsanri Yongin, Republic of Korea

** Computer Science and Engineering, Korea University, Anamdong Seoul, Republic of Korea

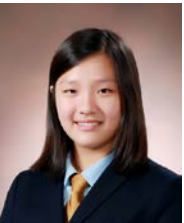
sarasong98@hafs.hs.kr, ejeong100@hafs.hs.kr, tsyoon@scie.kr

Abstract— This study focuses on the mosquito borne diseases including dengue-1, dengue-4, yellow fever, west nile virus infection, and filariasis. These are the diseases that are typically shown in the African continent and Eastern Asia, which are the places that suffer from poverty the most. Vaccines for some of the diseases have already been made but the ones who inhabit in those areas do not have the ability to afford it. The research will use 3, 5, 7 windows of decision tree and apriori algorithm. By finding the similarities between the amino acid sequences between these viruses the study to find the curing for all diseases will be in progress. Emerging filariviruses: the spread and resurgence of Japanese encephalitis, West Nile and dengue viruses

Keyword—Dengue-1, Dengue-4, Yellow Fever, West Nile Virus, Filariasis, Decision tree, Apriori Algorithm



Seung Hye Song was born in Seoul, Korea, in 1998. She is currently a student of Hankuk Academy of Foreign Studies in Yongin, Gyeonggi-do, South Korea with science major. She is specialized and interested in biology and medical science which she wants to major in the future. Her main interest nowadays is viruses which made her to work on other articles related with viruses as well.



YiJeong Choi was born in 1998. She is currently a student in science major of Hankuk academy of foreign studies. She is interested in bio-science and applying bio-informatics to analyzing gene and finding new facts about human genes.



Taeseon Yoon was born in Seoul, Korea, in 1972. He received his Ph.D. degree in computer education from the Korea University, Seoul, Korea, in 2003. From 1998 to 2003, he was with EJB analyst and SCJP. From 2003 to 2004, he joined the Department of Computer Education, University of Korea, as a lecturer and Ansan University, as an adjunct professor. Since December 2004, he has been with the Hankuk Academy of Foreign Studies, where he was a computer science and statistics teacher. He was the recipient of the Best Teacher Award of the Science Conference, Gyeonggi-do, Korea, 2013.