





BASIC PHYLOGENETICS AND BIOINFORMATICS METHODS WORKSHOP

Dr Nor'Aishah Hasan, Mohd Zaini Nawahwi, Dr Nurhamimah Zainal Abidin, Dr Ida Muryany Md Yasin, Dr Amirul Adli Abd Aziz , Dr Nor Monica Ahmad, Ilyanie Hj. Yaacob, Nur Intan Hasbullah

Biotechnology, Microbiology and Environment Collaborative Sciences (BioMECs), UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah, Pekan Parit Tinggi, 72000 Kuala Pilah, Negeri Sembilan

biomecs@uitm.edu.my

The special Interest Group (SIG) BioMECs achieved another milestone in 2021 by hosting a workshop entitled 'Basic Phylogenetics and Bioinformatics Methods'. This workshop was held on the 11th November 2021, led by Dr Dzarifah Zulperi, a senior lecturer from the Faculty of Agriculture, Universiti Putra Malaysia (UPM). This workshop marked another important step in our mission to provide a platform for sharing knowledge discourse in targeted fields, namely biotechnology, microbiology and the environment comprehensively to improve the quality and scholarship in the field of science. This paid halfday workshop (from 10 am to 1pm) engaged 67 participants from both local and international via Google meet application. Teaching materials were provided through the designated Google Classroom. This workshop also included discussion and hands-on session on the software and an opportunity to respond to audience generated questions.

This workshop explored common software used in sequence alignment and phylogenetic tree namely BioEdit and MEGA. These software offer functions such as sequence alignment and editing plus analysing the properties of DNA, RNA and proteins that are essential for every biological laboratory.

These software also integrated with many programs in bioinformatics such as ClustalW for multiple sequence alignment and BLAST (Basic Local Alignment Search tool) database of sequences for sequence searching. Interestingly, BioEdit software provides the feature for the formation of phylogenetic trees to study the evolutionary relationships among organisms.



Figure 1 Poster of the workshop









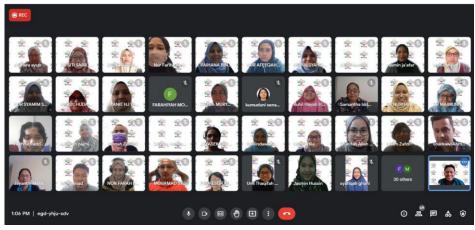


Figure 2 Screenshot of participants

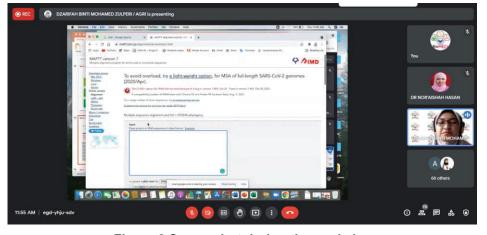


Figure 3 Screenshot during the workshop

"This workshop ended with the hands-on practical on the software and had an active interaction with the participants.

The post-workshop feedback questionnaire was given to every participant to evaluate the impacts of the workshop

organised."

We received positive feedback from the participants and they recommend making the workshop longer especially on the hands-on practical and discussion session. The participants commented that the workshop has been a fruitful event as the materials presented will most definitely be incorporated into their works. We received a suggestion from the participants to organise such informative workshops related to bioinformatics more in the future. An e-certificate was emailed to every participants post-workshop as a token of participation. The recorded workshop sessions have been uploaded in Google classroom for the participants. SIG BioMECs would like to thank all the participants, the trainer and the organising committee to make this workshop a successful event.

