

CERAMAH TEKNIK TECHNICAL TALK

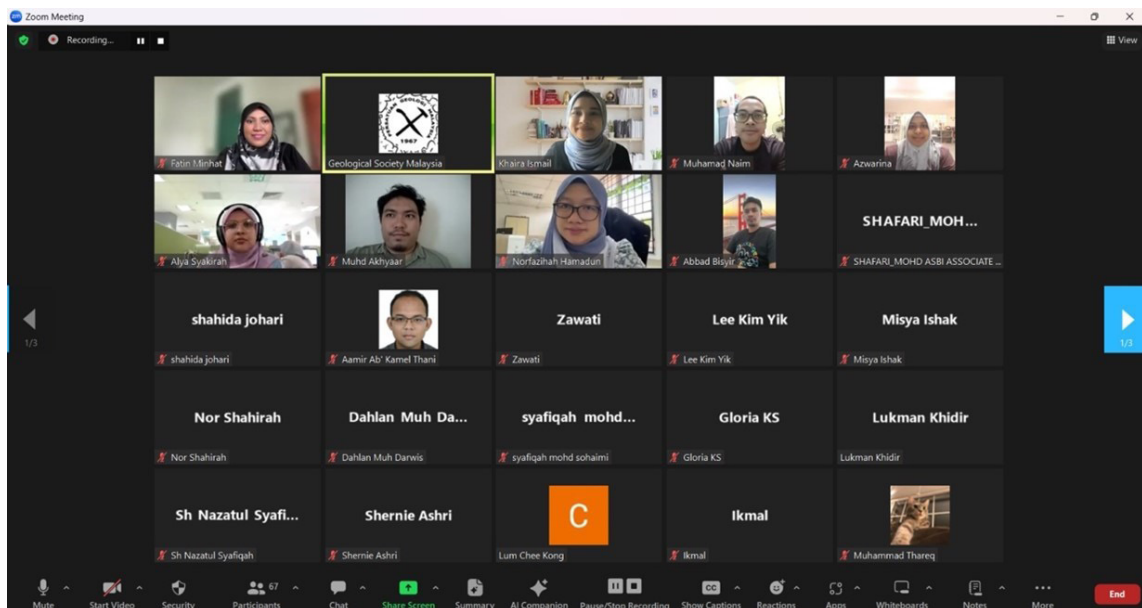
Modern foraminifera and their application

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The above talk was delivered by Associate Professor Dr. Fatin Izzati Minhat (Universiti Malaysia Terengganu) on 6th March, 2024 via Zoom. Some 67 members participated. An abstract of the talk is given below:

Abstract: Foraminifera, unicellular organisms in marine environments, are vital bioindicators and proxies for understanding ecological dynamics and environmental changes. Their applications span ecology, paleoceanography, palaeoclimatology, and environmental monitoring. They play diverse roles, from primary producers to water quality and habitat health indicators. Foraminifera also acts as a sensitive recorder of past environmental conditions, shedding light on historical climate variability, ocean circulation patterns, and ecosystem dynamics. Recent methodological advancements, such as molecular techniques and stable isotopic analysis, enhance our interpretation of past climate based on the foraminiferal assemblages and their environmental significance. Large benthic foraminifera (LBF) are noteworthy for their conspicuous size and complex morphologies. They serve as crucial indicators of reef health, sedimentary environments, and carbonate production. Their symbiotic relationship with photosynthetic algae makes them sensitive to environmental changes, especially in coral reef ecosystems. Integrating findings from modern foraminiferal research, including LBFs, into environmental management strategies can better protect and preserve marine ecosystems. This talk examines the multifaceted applications of foraminifera, highlighting the importance of LBFs in understanding and managing marine environments.

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