



UNIVERSITI PUTRA MALAYSIA

**SYNTHESIS OF *Kelulut* HONEY NANOPARTICLES AS EDIBLE
COATING ON THE PHYSICOCHEMICAL PROPERTIES AND
RESPIRATION RATE OF *Carica papaya* L.**

BERNARD ANAK MARINGGAL

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By

BERNARD ANAK MARINGGAL

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

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