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ABSTRACTS

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Title : Palm Oil (*Elaeis Guineensis*) Based Substance For The Production Of Nontoxic Oil Paint For Artist
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Thesis entitled Palm Oil (*Elaeis guineensis*) based Substance for the Production of Nontoxic Oil Paint for Artist is a cluster-based academic research in the social sciences highlighted innovative elements generated through trans studies approach that involves collaboration between two faculties: the Faculty of Art and Design (FAD) and the Faculty of Chemical Engineering (FCE), Universiti Teknologi MARA (UiTM), Malaysia. Intents to cooperate with the FCE, UiTM is to achieve the *alpha prototypes of nontoxic oil paints* as the alternative locally-made nontoxic painting mediums for application on canvas to be used by local artists amongst the lecturers, students, and full-time oil painters that come from the fine art majors. Based on trans studies approach, the researcher is responsible to develop the prototypes of alpha rather than beta. In other words, alpha refers to the first prototype version to run, while beta is a pre-production on nearly ready-to-market products based on the alpha baseline. The researcher upholds the alpha prototypes to serve as an initial platform or a baseline for a reference to any future researchers to bring the *alpha prototypes of nontoxic oil paints* to reach the beta stages in the future commercialisation. The *alpha prototypes of nontoxic oil paints* can reduce harm to the health of local artists and also to minimise the toxic air pollution in their work environment as well as to protect the other communities around local artists, such as children, young children, pregnant women, the elderly, pets, and other living beings, since the hazards are usually resulting from the use

of conventional oil paints which is a toxic painting medium contains heavy metal compounds. The *alpha prototypes of nontoxic oil paints* have synthesised in the primary colorants of the yellow, red, and blue developed from selected sustainable and renewable local natural resources and substances, which categorised as the contributors to national income and also existed and planted in Malaysia in which they are not poisonous as derived from the category of edible substances, such as commodity crops, herbal medicines, vegetable dishes, beverage flowers, beverage shrubberies, and nutritional materials, including the bacteria-based nourishment. There are five analyses use to test the *alpha prototypes of nontoxic oil paints*, such as (i) analysis of safety to examine the presence and the rate of toxicity contains in *alpha prototypes of nontoxic oil paints*, (ii) analysis of durability to examine *alpha prototypes of nontoxic oil paints* to the colourfastness to sunlight, rain, warmth, and coldness, (iii) analysis of usability by comparing compatibility tones between *alpha prototypes of nontoxic oil paints* and conventional oil paints as well as to test by applying *alpha prototypes of nontoxic oil paints* onto the canvas surfaces, (iv) analysis of reliability where *alpha prototypes of nontoxic oil paints* involved in the dependability tests by several renowned local and global artist-cum-academics who skilful and experienced in oil paintings, and (v) analysis of validity where *alpha prototypes of nontoxic oil paints* involved in the soundness tests by civilians who living in some developed cities in Malaysia that exposed in the use of artist's mediums, including conventional oil paints.