

UNIVERSITI TEKNOLOGI MARA

**UTILIZING LASER CUTTING
METHOD IN MENS' CUSTOM-
MADE CASUALWEAR**

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Dissertation submitted in partial fulfillment
of the requirements for the degree of
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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Laser cutting is a method of manufacturing process that uses laser in order to cut materials. It provides and ensures extreme accuracy which has a clean cut effect, CO₂ laser dominate this application due to their good- quality beam combined with high output power. It comes with a small scale and it has a limitation in cutting sizes of materials, therefore it is more appropriate for custom- made products. The same laser cutting machine is also capable in cutting fine material such as fine silk, cotton, leather, polyester etc. Lack of explorations and knowledge besides being unaware about this technology had caused many of the designers not to use this laser cutting method in their collections. The objectives of this study are: 1. to identify the potential of laser cutting technique in Custom-Made Garments for men's casual wear: 2. to experiment the laser cutting technique in custom made garments: 3. To offer guidelines and formula for men's custom- made casualwear designs with aesthetic value. In order to achieve the objectives, this research has been conducted by using mixed methods which are interviews with two (2) local experts in the apparel manufacturing industries and interviews via telephone with five (5) local respondents who are local emerging fashion designers, the questionnaires were distributed to one hundred (100) respondents around Klang Valley, in order to gain the information about their understanding and awareness regarding laser cutting technology. The experiment was conducted by using natural and man- made fibres. As a conclusion, all of the objectives had been achieved in producing custom-made men's casualwear and with the production of these attires it will help to educate and enhance the innovation in fine technology. Therefore, there will be a good linkage and collaboration between the design experts and the manufacturing companies.

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