

ABSTRACT

Title: Development of Anthropometric Database for Malaysian Working-Age Population

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Abstract:

An anthropometric valuation of a group of people is critical in the development of ergonomic products and workstations for all population. This study surveyed the 55 body dimensions and five static muscle strength of the 3549 Malaysian within the ages of 18 and 69 years. The measurement was conducted nationwide including Peninsular Malaysia, Sabah and Sarawak. Anthropometer, a customized anthropometric grid and dynamometers was used for measurement. Technical Error of Measurement (TEM) and calibration was made before data collection. Descriptive analysis revealed that males were superior to females in all dimensions except for standing hip breadth, sitting hip breadth, thigh clearance, hip circumference and chest depth. The comparative analysis found significant differences for most of the body dimensions between gender, ethnicity and age groups. The anthropometric database maybe uses to describe a new design of products or workstations among Malaysian working-age population. It can be the reference for employers to choose any ready-made clothing, PPE, machineries or furniture that suit their Malaysian workers.