

ABSTRACT

Manufacturing Process (Prozman) Laboratory is a new laboratory in Industrial Engineering. Infrastructure on Process Manufactur Lab continues to increase as needed required. One way is have a lab room with a size of 11.89 x 4.90 m were used for practicum. Practicum is one of the activities that college student must through in laboratory. Process Manufactur Lab activity mostly use a computer so it can be said that the work station used computer-based or Visual Display Terminal (VDT).

Facilities that used in laboratory does not made an optimal layout. It causes the space for user movement did not in the recommended standards. Desks which are used in practicum room is a facility that has a major impact on the condition of the room where the table is a facilities with the largest dimensions. A half the width size of the desk not use and it was proved by the simulation with software ManneQuin PRO. Result from Standard Nordic Questionnaire (SNQ) found Musculoskeletal Disorder (MSDs) experienced by the college students when using existing workstations that there are pain and it caused most of it is on the neck, right shoulder, right elbow, wrist/right arm, upper back, and knee. When analyzed using the software ErgoEASER turns out, the workstation was causing fatigue or exhaustion. To overcome this, it is necessary to design an ergonomic desk that fit the needs of Manufacturing Processes Laboratory practicum room.

The results of the proposed research is the desk used ergonomic approach and fit with practicum room with the proposed desk specification designed is fixed-size type with the height desk surface 720 mm high, 600 mm for width and 1100 mm for length. The desk designed have proper specific CPU place and a footrest.

Keywords: Ergonomics, Anthropometry, Visual Display Terminal, Musculoskeletal Disorder, ErgoEASER, MannequinPRO.