

## ABSTRAK

Mekanik bengkel motor bertanggung jawab melakukan pemeriksaan, perawatan, dan perbaikan termasuk salah satunya yaitu sistem kelistrikan pada *body* motor. Mekanik kerap harus bekerja dalam posisi membungkuk, jongkok, atau duduk di kursi yang tidak ergonomis selama berjam-jam, terutama saat melakukan pengecekan korsleting kabel *body* motor. Aktivitas repetitif dalam postur tidak ergonomis ini menyebabkan keluhan *musculoskeletal disorders* (MSDs) pada mekanik bengkel motor. Adapun penilaian *Rapid Upper Limb Assessment* (RULA) dari aktivitas pengecekan korsleting kabel *body* motor, postur mekanik bengkel mendapatkan skor rula 6 yang masuk dalam kategori tinggi menunjukkan bahwa postur diperlukan investigasi dan memungkinkan perubahan secepatnya. Penelitian ini bertujuan untuk merancang kursi kerja mekanik bengkel motor yang ergonomis dengan menggunakan metode *Function Analysis System Technique* (FAST). Diagram FAST menghasilkan kursi kerja mekanik untuk mencegah terjadinya cedera MSDs dengan karakteristik menopang area punggung, memfasilitasi pergerakan horizontal, mendistribusikan tekanan bokong, meminimalkan tekanan paha, dan menstabilkan lutut. Hasil kursi rancangan mendapat penurunan skor RULA dari skor 6 yang termasuk dalam level tindakan 2 dengan kategori tinggi menurun setelah menggunakan kursi rancangan usulan menjadi skor menjadi 3 yang termasuk dalam level tindakan 1 dengan kategori sedang.

**Kata Kunci: Kursi, RULA, FAST, Ergonomis**

### *Abstract*

*Motorcycle repair shop mechanics are responsible for inspections, maintenance, and repairs, including one of them, the electrical system on the motorcycle body. Mechanics often have to work in a bending, squatting, or sitting position in an unergonomic chair for hours, especially when checking the short circuit of the motor body cable. This repetitive activity in unergonomic postures causes complaints of musculoskeletal disorders (MSDs) in mechanics of motor workshops. As for the Rapid Upper Limb Assessment (RULA) assessment of the short circuit checking of the motor body cable, the mechanical posture of the workshop received a RULA score of 6 which is in the high category, indicating that the posture needs investigation and allows for changes as soon as possible. This research aims to design an ergonomic mechanical work chair for a motorcycle workshop using the Function Analysis System Technique (FAST) method. The FAST diagram produces a mechanical work chair to prevent MSDs injuries with the characteristics of supporting the back area, facilitating horizontal movement, distributing buttock pressure, minimizing thigh pressure, and stabilizing the knee. The results of the design chair received a decrease in the RULA score from a score of 6 which was included in the action level 2 with a high category, decreased after using the proposed design chair to a RULA score of 3 which was included in the action level 1 with a medium category.*