

Simulasi distribusi pembebanan baterai li ion pada kendaraan listrik dengan metode dynamic programming = Simulation of li ion battery load distribution on electric vehicle through dynamic programming method / Gema Handaru

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Abstrak

[Kendaraan listrik memanfaatkan baterai sebagai sumber daya utama penggerakannya. Penting untuk mengetahui kondisi parameter ? parameter baterai seperti tegangan dan arus agar diketahui kemampuan baterai sebagai sumber daya kendaraan listrik. Metode simulasi matematis dapat dilakukan untuk mengetahui nilai parameter ? parameter baterai. Simulasi menggunakan beberapa set baterai yang dioperasikan secara serentak dan bergiliran. Hasil simulasi menunjukkan bahwa jumlah baterai yang dibutuhkan bergantung dari massa kendaraan, kecepatan, perubahan kecepatan dan perkiraan waktu operasional kendaraan. Baterai yang dioperasikan secara serentak menyisakan kapasitas sebesar 24,48% dan baterai yang dioperasikan secara bergiliran menyisakan kapastias sebesar 11,71% untuk menempuh jarak 157,5 Km.

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