

EXPERIMENT-05

5. **Scenario:** You are a data analyst working for a car manufacturing company. As part of your analysis, you have a dataset containing information about the fuel efficiency of different car models. The dataset is stored in a NumPy array named `fuel_efficiency`, where each element represents the fuel efficiency (in miles per gallon) of a specific car model. Your task is to calculate the average fuel efficiency and determine the percentage improvement in fuel efficiency between two car models.

Question: How would you use NumPy arrays and arithmetic operations to calculate the average fuel efficiency and determine the percentage improvement in fuel efficiency between two car models?

Code:

```
import numpy as np
fuel_efficiency = np.array([18, 20, 22, 24, 26])
avg_fe = np.mean(fuel_efficiency)
percent_improve = ((fuel_efficiency[4] - fuel_efficiency[0]) / fuel_efficiency[0]) * 100
print("Average Fuel Efficiency:", avg_fe)
print("Percentage Improvement:", percent_improve)
```

Output:

```
C:\Users\karan\OneDrive\Desktop\New folder (2)>5.py
Average fuel efficiency: 24.4
Percentage improvement: 66.66666666666666 %
```