

Hardware Assignment

PT-100 (AI-ML)

TRAINING DATA :

Temperature (°C)	Voltage (V)
24.7	4.566
55.5	4.610
62.3	4.617
69.5	4.621
76.8	4.628
77.1	4.629
82.1	4.630
89.5	4.635
95.6	4.641
92.0	4.640

TABLE I: Training Data

VALIDATION DATA :

Temperature (°C)	Voltage (V)
34.8	4.578
41.1	4.590
45.5	4.594
49.1	4.595
58.0	4.612
63.3	4.618
67.4	4.619
74.5	4.626

TABLE II: Validating Data

After training the **ARDUINO**, the **Callendar-Van Dusen** equation comes out to be :

$$V(T) = 4.52171132 + \left(2.01541525 \times 10^{-3}\right) T - \left(8.15375669 \times 10^{-6}\right) T^2 \quad (1)$$

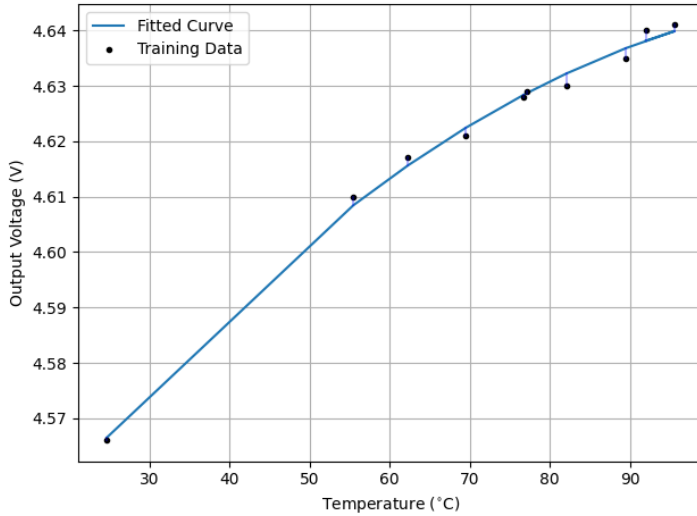


Fig. 1: Training the Model

VALIDATION :

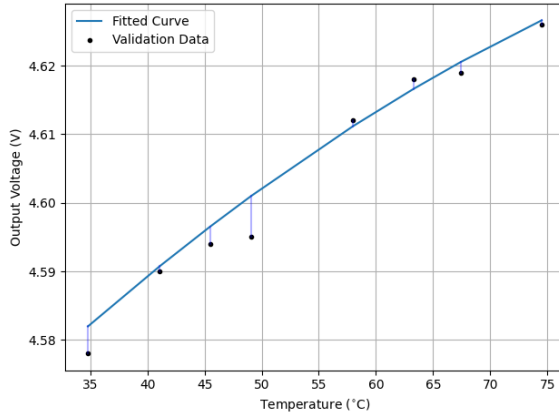


Fig. 2: Validation