```matlab
x = 1:10;
y = [5.5 7.8 8.3 10.5 11.1 13.2 15.1 16.2 18.5 19.8];
n = length(x);
sum_x = sum(x);
sum_y = sum(y);
sum_xy = sum(x.*y);
sum_x2 = sum(x.^2);
m = (n*sum_xy - sum_x*sum_y) / (n*sum_x2 - sum_x^2);
b = (sum_y - m*sum_x) / n;
figure;
scatter(x,y);
hold on;
yfit = m*x + b;
plot(x,yfit,'r');
xlabel('x');
ylabel('y');
legend('Data','Regression Line','Location','northwest');
```