AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

DATA COMMUNICATION

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Lab: 04

LAB REPORT ON

Study of Digital to Analog Conversion using MATLAB.

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Title: Study of Digital to Analog Conversion using MATLAB.

Code for digital to analog modulation (ask, fsk and psk):

```
f = 5;
f2 = 10;
x = [1 1 0 0 1 0 1 0]; % input signal ;
nx = size(x,2);
i = 1;

while i < nx + 1
    t = i : 0.001 : i + 1;
    if x(i) == 1
        ask = sin(2 * pi * f * t);
        fsk = sin(2 * pi * f2 * t);
        psk = sin(2 * pi * f * t);
    else
        ask = 0;
        fsk = sin(2 * pi * f * t);
        psk = sin(2 * pi * f * t + pi);
    end

    subplot(3, 1, 1);
    plot(t, ask);
    hold on;
    grid on;
    axis([1 9 -1 1]);
    title('Amplitude Shift Key')

    subplot(3, 1, 2);
    plot(t, fsk);
    hold on;
    grid on;
    axis([1 9 -1 1]);
    title('Frequency Shift Key')

    subplot(3, 1, 3);
    plot(t, psk);
    hold on;
    grid on;
    axis([1 9 -1 1]);
    title('Phase Shift Key')

    i = i + 1;
end
```

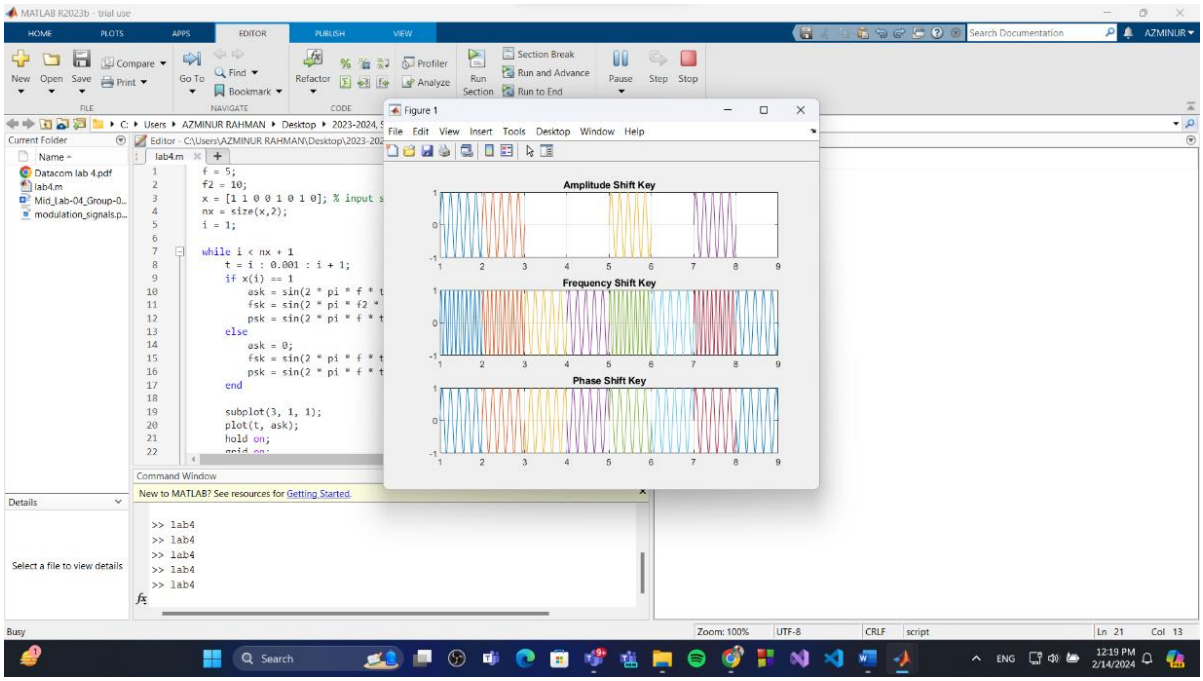

Fig 01: Digital to Analog modulation (ask, fsk and psk).

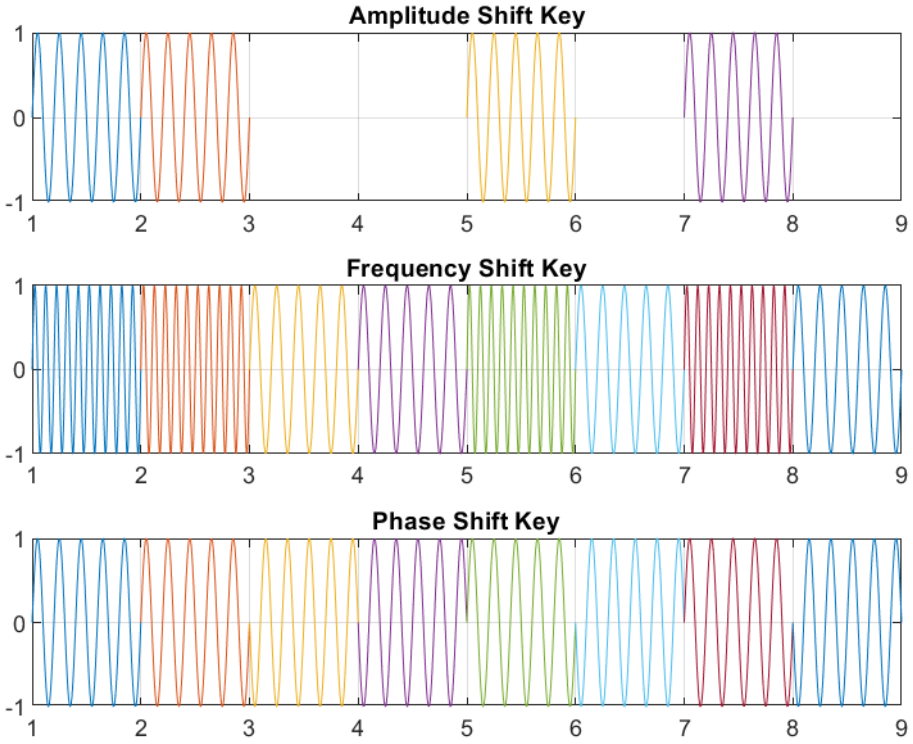

Fig 02: Digital to Analog modulation (ask, fsk and psk).