



The Islamic University
College of Technical Engineering
Department of Computer Technical Engineering



Fourth Stage

***Security
Lab.***

Lecture 7

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Example

Write a program in MATLAB to encrypt the message “**hello**” by using **Vigenere Cipher** with the **Keyword: hi**.

Encryption Code

```
clear, clc

p = input('Plaintext = ', 's');
k = input('Key = ', 's');

p = lower(p);
k = lower(k);

lp = length(p);
lk = length(k);

if lp>lk
    for i=1:lp
        k1 = repmat(k,1,i)
        if lp<length(k1)
            break
        end
    end
end
```

```
k1 = k1(1:lp);
else
    k1 = k(1:lp);
end

c = int16(p-97) + int16(k1-97);
c = mod(c,26);
c = char(c+65)
```

The Result of Encryption is

OMSTV

Homework

By using **Vigenere Cipher**, encrypt the word **“Explanation”** using the **Key : (11, 4, 6)**