



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



Fourth Stage

***Security
Lab.***

Lecture 5

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Example

Write a program in Matlab to Encrypt the word “**hero**” by using **Affine Cipher** with the Pair **Key** (3, 2). Where the **message** and **Key** should be in the form of input.

Encryption Code

```
clear, clc
```

```
p = input('Plaintext = ','s'); → Plaintext
```

```
k1 = input('First Key = '); → Key1
```

```
k2 = input('Second Key = '); → Key2
```

```
p = lower(p);
```

```
p = int16(p-97);
```

```
c = mod((p*k1)+k2,26);
```

```
c = char(c+65) → Ciphertext
```

The Result of Encryption is

XOBS

Homework

Write one program in MATLAB to Encrypt the message “this is an exercise” using the following cipher.

- Affine Cipher with Pair key (T, u).