بسم الله الرحمن الرحيم

**THE ISLAMIC UNIVERSITY – FACULTY OF ENGINEERING  
COMPUTER ENGINEERING DEPARTMENT**

**SIGNALS AND LINEAR SYSTEMS LABORATORY  
`EELE 3110**

GUI program Matlab

***By***

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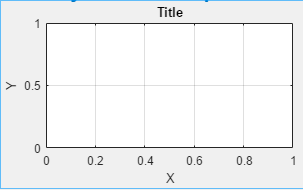
**Ideas project :**

* **Plot the function**
* **Plot the function transformation**
* **Plot the convolution two signal**
* **Integrals**
* **Derivatives**
* **Solve equations**

**design steps :**

**main screen:**

* **UIAxes )** **To display the graphic in a screen Convolution or scaled or shift or plot (**

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* ** EditField)** **to write the function(**
* **Label for guidance**
* **Three button :**

1. **Button Convolution**
2. **Button plot**
3. **Button To go to the Transformation screen**

* **Parameter Edit Field and label Group(Specialist in scaling, frequency and offset(**
* **Tools Drop Down (Go to the Transforms, Integrals, Derivatives, and Solve Equations screen(**

**Screen Transformations:**

* ** EditField)** **to write the function(**
* **Label :**

1. **Label for guidance**
2. **Label for display the output**

* **Tools Drop Down(to go fourier ,laplace ,Z )**
* **Button (go back)**

**Screen integrals :**

* Edit field :

1. Edit field to enter the function
2. Two edit field to get integration limits
3. Edit field to get variable to integrate
4. Edit field to display the output

* Label (for guidance)
* Button :

1. Integrate
2. Exit

* StateSwitch (to switch from unbounded to bounded integral limits)

**Screen derivatives :**

* Edit field :

1. Edit field to enter the function
2. Edit field to get degree
3. Edit field to get variable
4. Edit field to find derivative in exact value
5. Edit field to display the output in general form (if don’t put exact value )
6. Edit field to display the output in exact

* Label (for guidance)
* Button :

1. Derivatives
2. Exit

**Scree solve equation:**

* Label (for guidance)
* Edit field :

1. Edit field to enter the function
2. Edit field to get variable you want solve respect with
3. Edit field to display the output

* Button :

1. Solve equation
2. Exit