

وزارة البحث العلمي



# CERTIFICATE

*This is to certify that*



Ministry of Scientific Research

**Eng.** .....

*Has successfully Completed*

## ***Diploma in Embedded Electronics Systems***

**Date : From : / / 20 : To : / / 20**

- 1- Introduction to Embedded Systems
- 2- C - Programming & Advanced C
- 3- Data Structure Theories and algorithms
- 4- Computer and Microprocessors Architecture
- 5- Software engineering for embedded systems
- 6- Microcontroller peripherals
- 7- Embedded C programming
- 8- Microcontroller communications
- 9- Interfacing different communication modules
- 10- Controller Area Network CAN

***Supervisor***

- 11- Introduction to Real-Time Operating Systems (RTOS)
- 12- UART and USB interfacing using C#
- 13- Signal conditioning, basic small signal transistor circuits, and op-amp circuits
- 14- Introduction to power electronics components and elements, MOSFETS, BJTs, IGBTs and transistor drivers
- 15- Introduction to DIACs, TRIACs, Thyristors
- 16- DC/DC converters ,Inverter , Three phase systems
- 17- Basic system simulation using proteus ISIS
- 18- PCB design using Proteus ARES

***Chairman***