

Ministry of Higher Education and Scientific Research  
University of Mosul  
College of Engineering  
Department of Mechatronics Engineering



## DESIGNING A WEED CONTROL SYSTEM USING ARTIFICIAL INTELLIGENCE

**Prepared by:**

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*Khairallah Hussein Yusef*

**Supervised By**

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*Dr. Ziad Mohammed Yusef*

**MOSUL-IRAQ**

**Fall -2025**

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# **REMOTE REAL-TIME WATER LEVEL MONITORING SYSTEM DESIGN AND FEASIBILITY STUDY**

Prepared by

**OTHMAN MOATAZ**

**ARY RIBWAR**

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Supervised By

**DR. MOHAMMED FALAH MOHAMMED**

**MOSUL-IRAQ**

**FALL 2024**



*University Of Mosul  
College Of Engineering  
Mechatronics Engineering  
Department*



*Bachelor's Final Project*

## ***Design of a Mower Garden Sustainable***

**A Graduation Project Submitted to Mechatronics Engineering  
Department as a Partial Fulfillment of the Requirements For The  
Degree of Bachelor of Science In Mechatronics Engineering**

### **Subjected by:**

**Yousif Imad Zaki    Mohammed Fadel Abbas    Sajad Moaed Salal**

### **Supervised by:**

**Assist. Prof. Dr Muhamad Azhar Abdilatif Alobaidy**

**Assist. Lect. Rashad Adhed Kamal**

**2024- 2025**

Republic of Iraq

Ministry of education and scientific research

University of Mosul

Mechatronics Engineering Department



# **DESIGNING AND BUILD VEHICLE TO DETECT AND IDENTIFY OBSTRUCTIONS**

BY

**Nabaa Mohammed Allawi**

**Zina Jasim Mohammed**

Supervised By

**Dr. Myasar Salim Alattar**

**Dr. Zeyad Mohammed Yousef**

Mosul, Iraq

FALL 2024

Ministry of Higher Education and Scientific Research  
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## **APPARATUS DESIGN OF CONNECTION PUMPS IN SERIES AND PARALLEL**

Prepared by

**ALI ADNAN**

**HAIDER MUZAFFER**

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Supervised By

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**DR. ALI ABDULJALIL**

**MOSUL-IRAQ**

**FALL 2024**



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## **THEORETICAL FOUNDATIONS OF SUSTAINABLE AI- POWERED ROBOTICS: SOLAR ENERGY, OBJECT DETECTION GPS NAVIGATION AND FOURTH- GENERATION NETWORKS**

Prepared by

**Suleiman Abd ALmoeen Suleiman**

**Yousif Ahmed Muaffaq**

**Ahmad Nawfal Mohamed Nouri**

Supervised By

**Dr . Mohamed Yassin Hazem**

**Dr. Omar Saadallah**

**MOSUL-IRAQ**

**Fall – 2024**

**Ministry of Higher Education and Scientific  
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**University of Mosul**

**College of Engineering**



## **Design of a Wireless Plotter CNC machine**

Prepared by:

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**Aisha Amer**

**Mohammed Bashar**

Supervised By :

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**MOSUL-IRAQ**

**FALL 2024**

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# **DESIGN OF SMART AND SUSTAINABLE CAR WASHING SYSTEM**

Prepared by

**YASIR RAWNAK**

**HUSSAM ABDULLAH**

**ABDULRAHMAN NASHWAN**

Supervised By

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**DR. ALI ABDULJALIL**

**MOSUL-IRAQ**

**FALL 2024**





**University of Mosul**  
**College of Engineering**  
**Mechatronics department**

**Kalman Filter to improve performance of PID control  
system on DC motor: Theoretical study**

Supervised

**Dr. Firas Ahmed Aladurzi**

**Dr. luai basheer**

**Khalil Saeed Khalil**

Done by

**Salim Saeed Khalil**

2024-2025