



Club Founder
Dr. Mahmoud Bahgat



Eng. Mahmoud El Komy
ROBOTO School Founder



Co-Founder & Club Host
Dr. Mohamed El Mezewdy

AI & Robotics Dilemma الذكاء الاصطناعي و علم الروبوتات



Tuesday 22nd OCT 2024



Online ZOOM Meeting



8 pm Egy

8 pm KSA

9 pm UAE

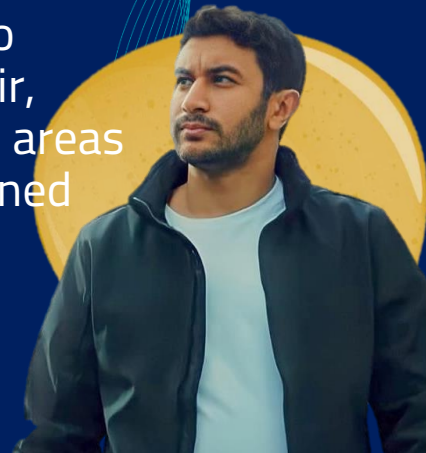
ABOUT OUR SPEAKER

- **Eng. Mahmoud El Komy** is a highly accomplished Mechatronics Engineer with extensive experience in the field of artificial intelligence and robotics.
- A volunteer researcher at the Military Technical College in the unmanned integrated systems
- Worked since 2013 in the jet factory in the **Arab Organization for Industrialization (AOI)**, where he carried out many studies that reflected the modernization of traditional mechanical operation machines and shared some military technologies for jet engines.
- Established the initiative Robotics for all in 2015.
- He sponsors **ROBOTO School**, which has over 1,800 students so far.



ABOUT OUR SPEAKER

- Invented the **robot "CIRA"** in February 2020, which is the first medical robot in Egypt with self-efforts and the first robot to take PCR swabs. CIRA has been ranked by the United Nations as one of the **top 50 innovations** and according to Forbes Middle East magazine for the top **100 innovations** and also according to Reuters One of the top **20 medical robots** in the world.
- CIRA robot won the **silver medal** at the Geneva Inventions in its exceptional session 2021.
- Invented **ELU robot** the first robot in the world designed to generate potable water by extracting moisture from the air, offers a potential solution for addressing water scarcity in areas with low access to clean drinking water. The invention gained significant recognition for its impact, particularly in arid environments and its potential use in space exploration missions, such as Mars.

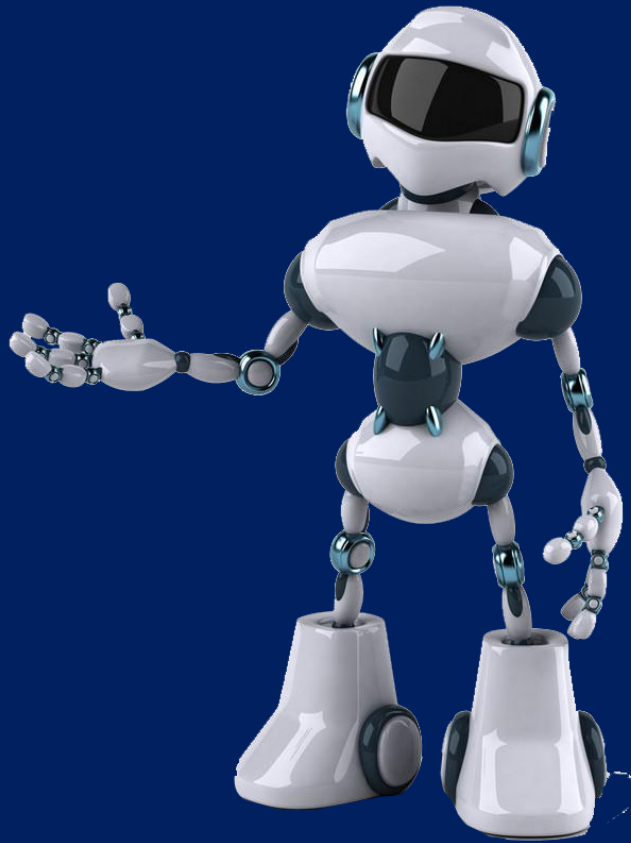


ABOUT OUR SPEAKER

- Won the **Geneva International Exhibition of Inventions Medal** in 2022. The award highlights ELU's unique contribution to both environmental sustainability and technological advancement.
- Invented **EKW Robot**; a sustainable solution to extinguish and predict forest fires by means of waves and artificial intelligence without water or chemicals.



WHAT IS THE ROBOT!

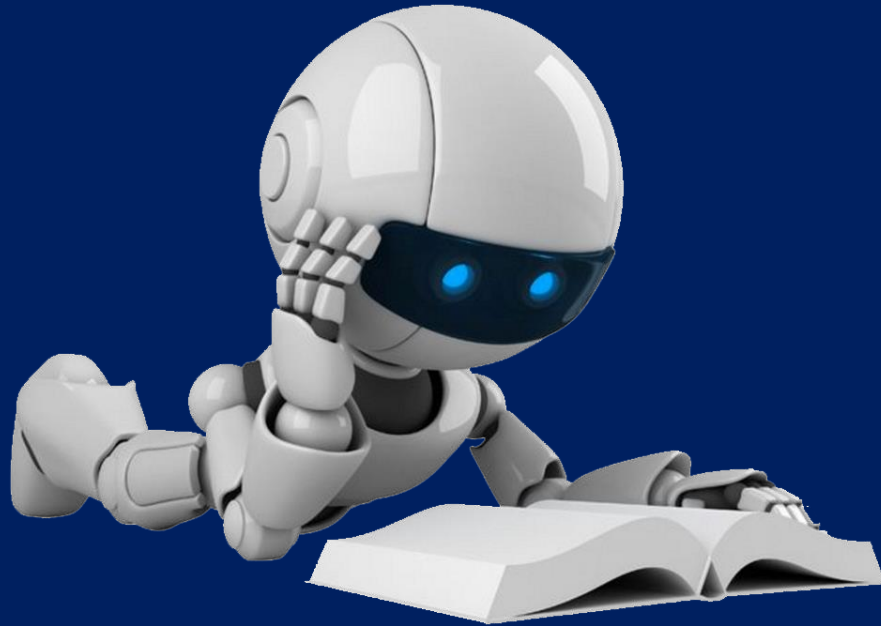


International **ROBOTICS**
Club



October 2024

WHY ROBOTICS?

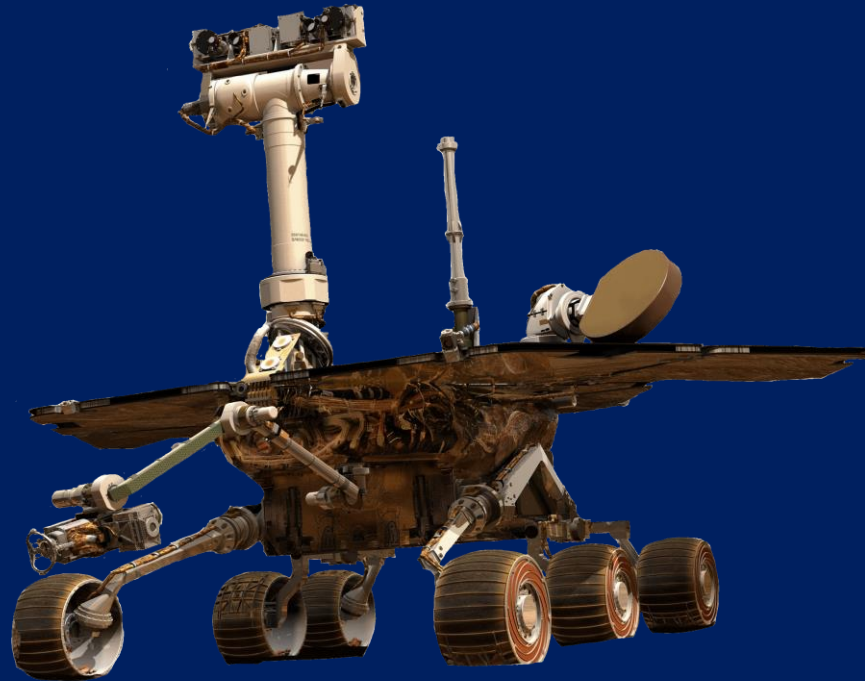


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TYPES OF ROBOT



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COMPONENTS OF ROBOTS

STRUCTURE

POWER SOURCE

ACTUATION

SENSING

MANIPULATION

LOCOMOTION



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LINER POWER TRANSFER

BALL SCREW

POWER SCREW



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POWER TRANSFER DEVICES

DIRECT POWER TRANSFER DEVICES

IN-DIRECT POWER TRANSFER DEVICES



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FUTURE PROSPECTS



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**Thank
you**





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Dr. Mohamed El Mezewdy
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International



Club Founder
Dr. Mahmoud Bahgat
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Monthly ZOOM Meeting



Every 3rd Monday of the month

7 pm Egy

7 pm KSA

8 pm UAE