MotionSense AI Competition Guide

Competition Description

Welcome to the MotionSense AI Competition!

In this challenge, we aim to combine cutting-edge technology with the promotion of healthy habits. We're excited to see your innovations—especially since there are no restrictions on the tools you can use or the final scope of your project.

Participants are expected to use **MATLAB Mobile** to collect sensor data and analyze or classify human activity using **Machine Learning (ML)** or **Deep Learning (DL)** techniques. For those who prefer not to collect their own data, a dataset will be provided.

The next step is to develop a **user-friendly application**—whether mobile, desktop, IoT, or web-based—that offers users insights into their physical activities and provides personalized recommendations for a healthier lifestyle.

While you are free to use any tools or platforms to tackle this challenge, we will offer workshops to introduce and support MATLAB workflows for solving such problems.

The competition will run for **one month**, culminating in a final presentation day. Evaluation will be based on your presentation, code submission, and a demonstration of your prototype (software and/or hardware).

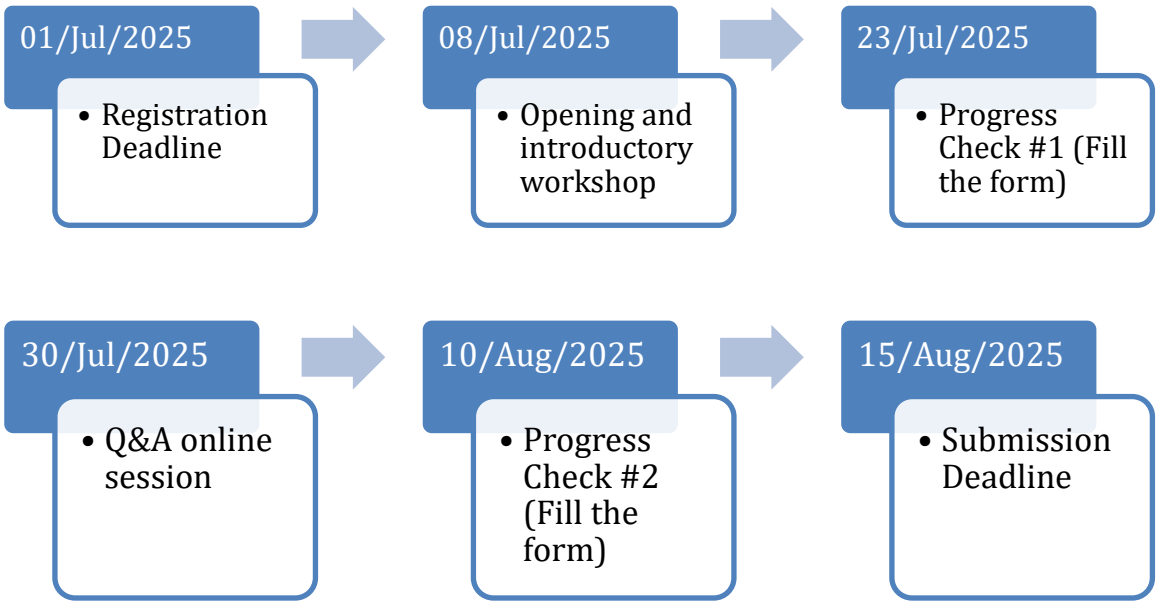
Eligibility Criteria

- Currently enrolled undergraduate students from Jordanian University
- Team size: 2-3
- Using valid MATLAB license
- Abiding to the timelines announced by organizers

Prizes

- First Place: 300 JOD
- Second Place: 200 JOD
- Third Place: 100 JOD

Important Dates



Submission Guidelines

Participants are expected to submit their codes and final product which could be a GUI, App or a webpage. They will have to record a presentation about their work. Here's a summary of deliverables:

1- Code and any linked components.
2- A presentation file including (highly recommended to be as a MATLAB live script .mlx format to qualify for a student blog post on MathWorks)
    a. Problem
    b. Scope of work
    c. Signal processing (including data collection, preprocessing and analysis)
    d. AI modeling (explain how your team used AI in this challenge, which models and tools)
    e. Results (discuss how your project manage to solve the problem, and what was the accuracy).
    f. Conclusion and References
3- Up to 3 min video presenting the content created and project outcomes. You may record from PowerPoint (Instructions), or use a video editing software. Competition won't judge the quality of video montage, but only the technical content. You can upload the video.

These deliverables are to be uploaded and submitted as a **link** to:

File Exchange **OR** GitHub **OR** cloud drive.

Judging Criteria

Will be announced soon, but will mainly focus on solution quality and accuracy, and final product functionality and user experience. The committee has the right to ask the team further questions after submission to clarify any ambiguities.

Reference for technical content

1- MATLAB License: if your university doesn't provide a Campus Wide License, you may use the competition license key as per the following steps:
   a. Create an account on MathWorks website.
   b. Validate account with your email.
   c. Go to my account > Link additional license > use the license key below.
   d. License key; 23191-69441-48069-48435-10431
2- Low code AI MATLAB workshop recording: this video illustrates the technical content of the workshop presented on 08/Jul/2025. Recording
3- Workshop examples and **dataset**: GitHub
4- MALTAB Mobile: https://www.mathworks.com/products/matlab-mobile.html
5- App Designer in MATLAB: https://www.mathworks.com/products/matlab/app-designer.html
6- MATLAB based IoT with ThingSpeak: https://thingspeak.mathworks.com/

Contact Information

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