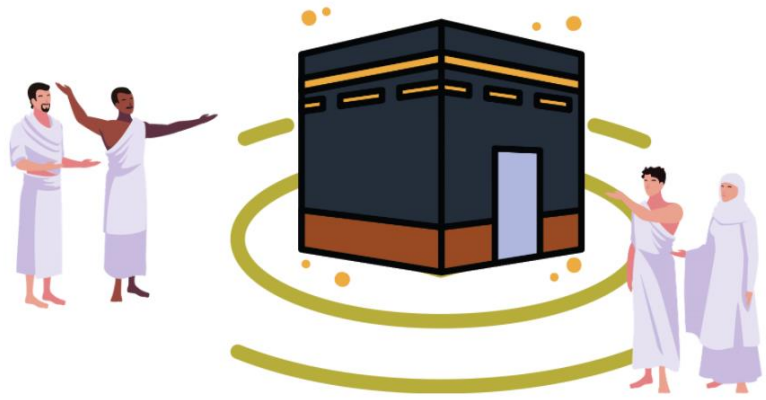
أكاديمية سدايا
SDAIA Academy



- **Question/Problem statement:**
  Due to the high volume of visitors in Mecca performing religious pilgrimage every year, we decided to ease the process of the entering / exiting the (Tawaf) around the Kaaba. We aim to implement a crowd monitoring system that encounters 3 main scenarios: 1) get the area density to spot crowdedness, 2) identify objects that's violating traffic direction, 3) monitor movement smoothness (no blocking objects).
- **Data Description:**
  The dataset composed of short videos of the tawaf area in 2019-2018 (before the COVID-19 pandemic to capture full capacity and normality of the area of interest)
- **Tools:**
  - Programs: Python, Jupyter Notebook, Google Colab.
  - Libraries: Keras, Tensorflow, Scikit-Learn ,Convolutional Neural Networks, Pandas, NumPy, matplotlib, seaborn, google trans,YOLO
- **MVP:**
  The goal of this project is to implement a crowd monitoring system customized for the Holy Mosque, Almasjid alharam, to regulate the movement around Alkaaba effectively and efficiently.
- **Source:**
  Makkah Live HD قناة القرآن الكريم | مكة المكرمة بث مباشر | La Makkah en Direct | Masjid Al Haram
- **Team members:**
  Bushra Alolyet
  Hanan Alshehri
  Laila Almajnuni
  Mohammed alzabyedi