

**WID2001**  
**Knowledge Representation & Reasoning**  
**Sem 2. Session 2022/2023**

**Group Project (30%)**

**Question and Tasks**

1. You must set a group of five members. As a team of junior Knowledge Engineers (KE), your group are assigned to join the Apprentice Program where you must develop an expert system (ES) as a solution to enhance a company performance (i.e. the ROI and Visibility).
2. Universiti Malaya (UM), one of the top 100 World University Ranking (<https://www.topuniversities.com/university-rankings/world-university-rankings/2023>) has a pool of talents and human experts. Please refer to the UM-Expert link, namely <https://umexpert.um.edu.my/> to see the list of UM Scholars and Academicians.
3. Your group are free to choose any industry/discipline which is suitable for your proposed ES, however, you must match and select one domain expert from the UM-Expert list to become your collaborator. You need to acquire the expert knowledge and let him/her verify the knowledge-base structure and the flow of the inference engine.
4. Finally, the solution ES prototype must be deployed as a mini mobile ES or a web-based ES and need to be presented to the possible Investors/ Ventures. The criteria of the evaluation will be:
  - a. The ES Prototype Design and Development (20%)
    - i. Knowledge-based component – Acquisition and Representation
    - ii. Inference Engine component – reasoning capability
    - iii. User Interface component – ease of use and suitability
    - iv. Other components (eg. uncertainty, explain, editor etc)
  - b. The robustness of the ES (eg. tools selection) & the KE team skills (5%)
  - c. The report and documentation (eg. References, KE portfolio, slide) (5%)
5. The due date to pitch the ES solution will be in **Week 12**. Your team must do a presentation and submit the relevant report on the same day. Marks will be deducted for any late submission.

- All the best -