Team Description Paper (TDP)

Team Name: Khalifa University Robotics Athletes (KURA)
League: RoboCupSoccer Humanoid (Adult Size)
Teams:

- **KURA**: Adult Size
  Team Manager: Dr. Hamad Karki

---

1. Introduction

Khalifa University Robotics Athletes (KURA) is a student robotics team representing Khalifa University, Abu Dhabi, UAE. The team actively competes in RoboCup Humanoid Soccer and other international robotics competitions, focusing on advanced humanoid control, perception, and autonomous decision-making for real-time soccer environments.

---

2. Achievements

- 2nd Place – RCAP 2026 Abu Dhabi Adult size (3v3)
- 2nd Place – RCAP 2026 Abu Dhabi kid size (4v4)
- 4th Place – WHROG 2025 (Beijing)
- 2nd Place – RoboCup 2024 (Kid Size League)

These results highlight the team's competitive performance and steady progress in both regional and global tournaments.

---

3. Research and Technical Focus

KURA has developed and implemented several innovative strategies for humanoid soccer:

- **Path Planning for Attack** – Dynamic motion planning for coordinated offensive play.
- **Parallel Goalkeeping** – Multi-agent defensive strategies with real-time positioning.
- **Dynamic Role Assignment in 3v3 Matches** – Adaptive role switching for forward, midfielder, and goalkeeper based on game state.

- **Teammate and opponent differentiation** – Using cameras and communication capabilities to differentiate between opponents and teammates

The team integrates **computer vision, reinforcement learning, and real-time control** to enhance cooperation among humanoid robots.

---

4. Team Members

Saif Dhafer Alameri, Ahmed Sultan Al Ali, Hasan Al Hussein, Aamanah, Anchal Baburaj, Omar Yousef, Yousof Elkhayyat, Ali Aldalou, Mohaamed Zakkaria, Yaman Fuad Masad, Wahaj Ahmed, Nevan John Thomas, Salaheddine Metnani, Ahmed alhawamdeh, Naqiyah Rajkotwala, Suhail Albulooshi, Haya Chaudhry , Ahmed Albreiki.

---

5. Conclusion

KURA continues to advance its humanoid soccer research with a focus on teamwork, adaptability, and real-time decision-making. Through its innovative approaches in attack strategies, defence, and dynamic role assignment, the team aims to further enhance its performance and contribute to the RoboCup community's vision of achieving fully autonomous humanoid soccer.