

Intelligent Systems, Automation and Control Laboratory

Department of Electrical and Electronic Engineering, BUET
4IR Advanced Research and Innovation Park

Overview:

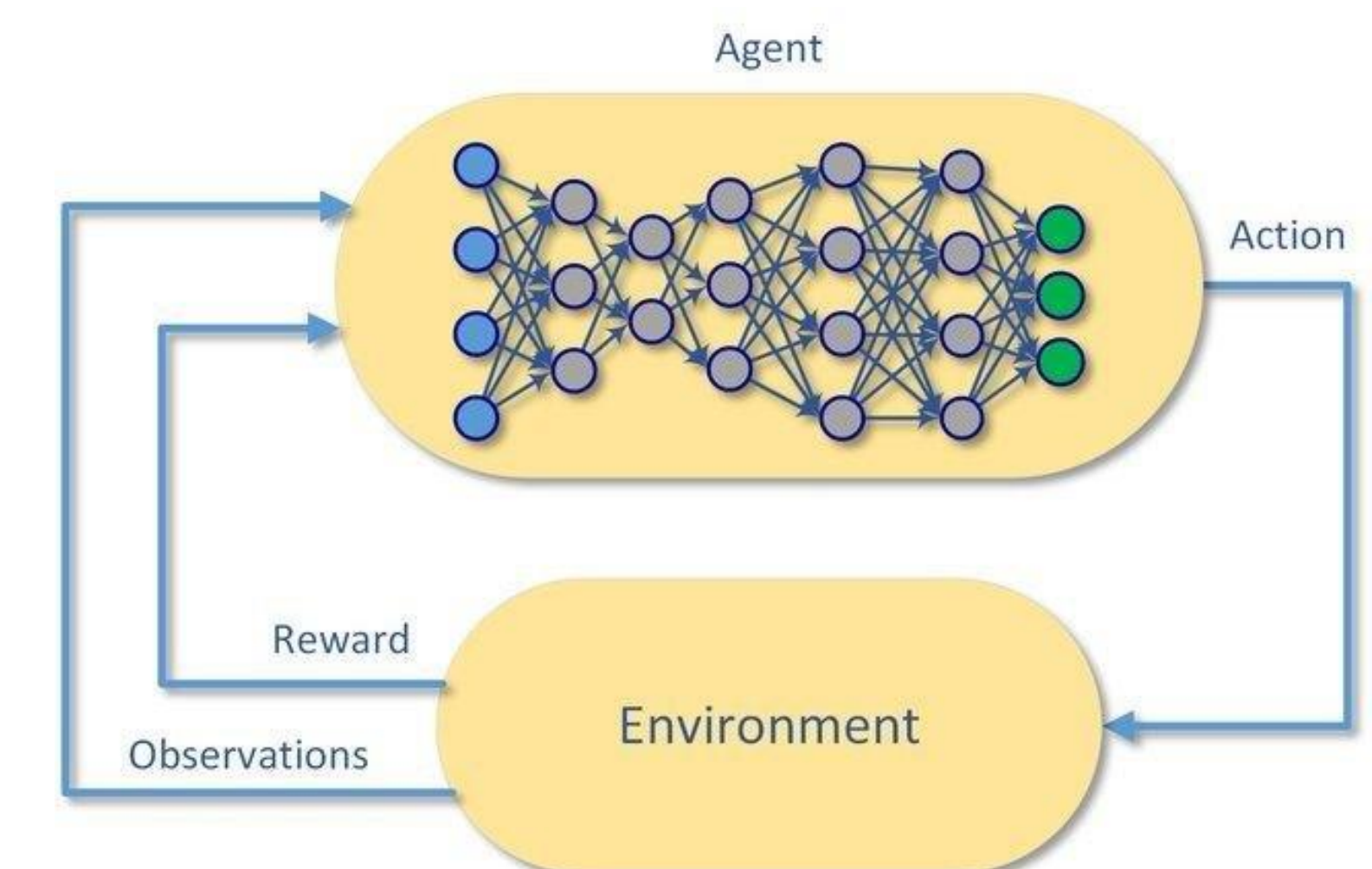
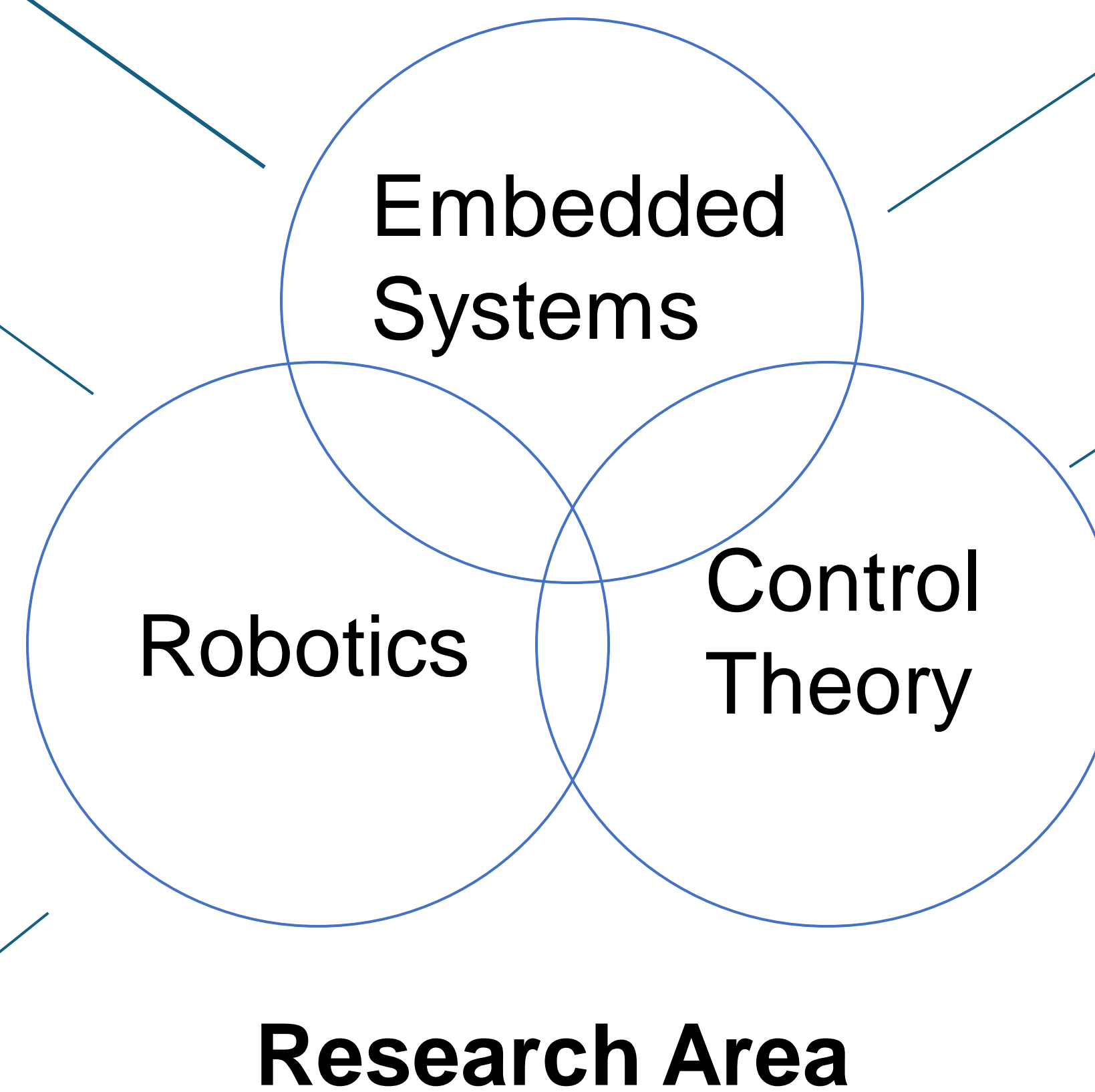
The Intelligent Systems, Automation, and Control Laboratory (ISACL) aims to develop a cutting-edge research facility dedicated to advancing the fields of robotics, control theory, and embedded systems. In ISACL, we seek to address complex challenges and create systems that are more efficient, adaptive, and intelligent.

Vision: To be a leading center for research and innovation in building intelligent systems, automation, and control, contributing to the advancement of 4IR technologies



Mission

- To pioneer research in robotics, control theory, and embedded systems.
- To develop innovative solutions that bridge theory and practical applications.
- To build dynamic partnerships with industry and government.



Prospective Projects

Disaster Management: Intelligent Systems for Disaster Management

Agriculture: Smart Farming and Agriculture, Fisheries and Livestock

Healthcare: Automatic Disease Detection and Management

Household/Industry: Smart Building Energy Management System

Environment: Automatic Environmental Pollution Management

Education: Augmented and Virtual Reality for Smart Education

Industry: Industrial Process Automation for Enhanced Production

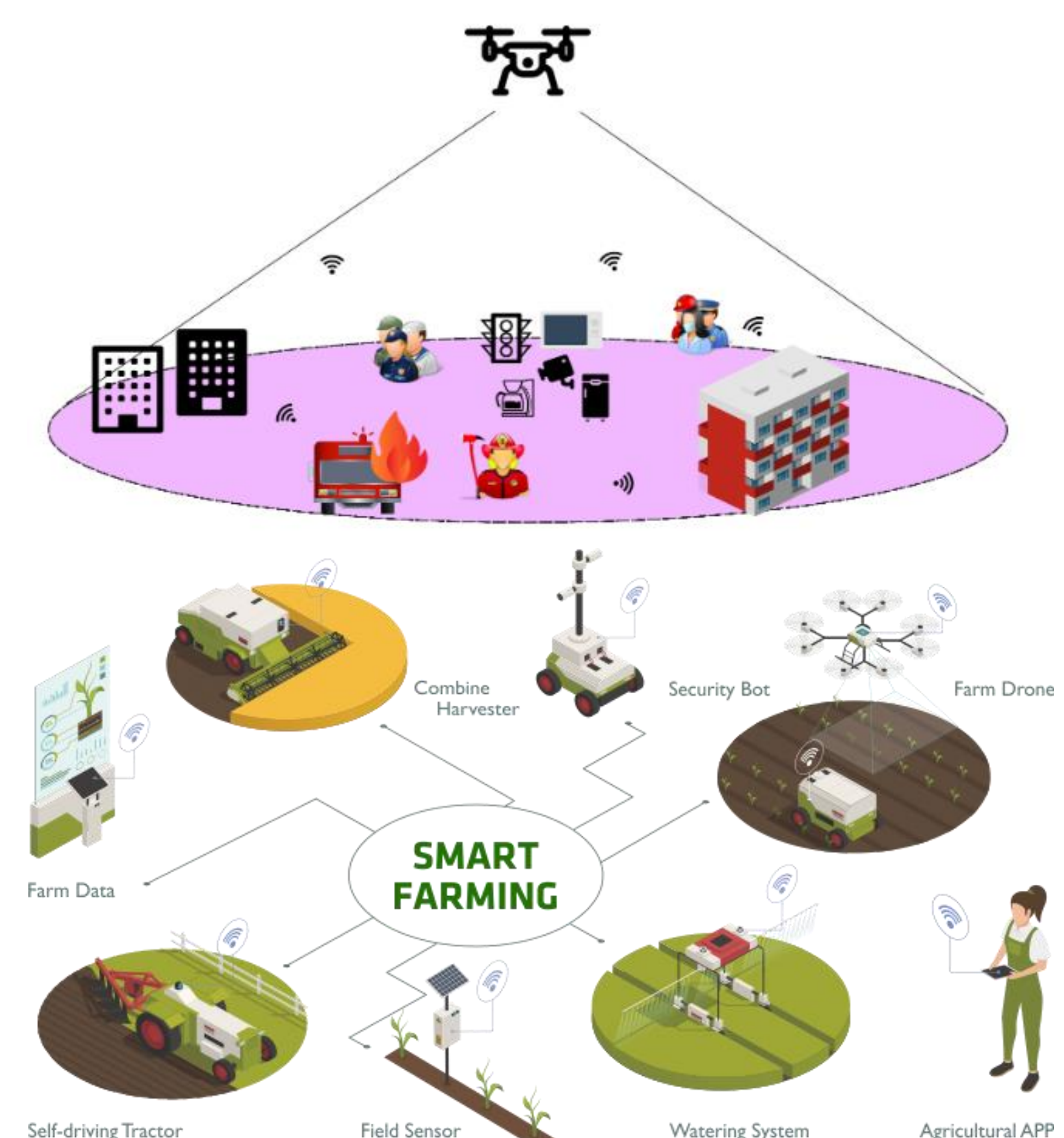
Transportation: Intelligent Traffic/toll Control and Vehicle Tracking System

Computer Vision: Intelligent Access Control and Action Recognition

Generative AI: Intelligent Bangla Tech Assistance with Control

Key Equipment and Facilities:

- Computing Infrastructure
- Robotics Platforms
- Embedded Systems Development Kits
- On-device AI Development Tools
- Sensors and Actuators
- Simulation Software



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