

# CHANKECCA KUN

 Phnom Penh, Cambodia

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## PROFILE

Engineering student and developer with a strong interest in **IoT, robotics, and system-level software design**. Experienced in building real-world projects that integrate embedded systems, computer vision, networking, and user interfaces. Comfortable working across hardware, firmware, and software layers, with a focus on reliability, communication, and practical deployment. Passionate about learning through experimentation and documenting technical knowledge.

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## EDUCATION

**Institute of Technology of Cambodia (ITC), Phnom Penh**

**Bachelor of Engineering in Network & Telecommunications Engineering**

*Expected Graduation: 2026*

Relevant coursework:

- Embedded Systems
  - Digital & Analog Electronics
  - Signals & Systems
  - Networking & Communication Systems
  - Control Systems
  - Programming & Software Engineering
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# EXPERIENCE

## Software Developer Intern

**Camfly Tech** — Drone Startup

*3 months (Ended October 2025)*

- Developed and maintained software components for a drone ground-station application
  - Worked with **Qt/QML**, **C++**, **MAVLink**, and system-level UI architecture
  - Focused on UI responsiveness, telemetry handling, and modular application structure
  - Gained hands-on experience in startup engineering workflows and real-world constraints
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## Robotics Team Member

**Dynamics & Control Lab (DCLAB), ITC**

- Active member of the lab's **ABU Robocon team**
  - Contributed to robotics software development, vision systems, and integration tasks
  - Collaborated in multidisciplinary teams under competition deadlines
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## IoT Project Collaborator

**Digital-Control Fabrication Lab (FABLAB)**

*6-month collaboration*

- Participated in a large-scale IoT project involving embedded devices and cloud communication
  - Worked on system integration, sensor data handling, and deployment considerations
  - Gained experience in collaborative prototyping and applied IoT development
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# COMPETITIONS

## ABU ROBOCON 2025

- Software member of **Team ITC02**
- **National Champion (Cambodia)**
- **Best Engineering Award – International Level**
- Contributed to robot software systems and competition-ready deployment

## ABU ROBOCON 2026

- Continuing as a member of **Team ITC02**
  - Acting as **Computer Vision Lead**
  - Focused on perception pipelines and vision-based decision-making for competition robots
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# STAR PROJECTS

## YOLOv11 Ball Detection System

- Custom-trained object detection model for robotic applications
- Integrated into a **ROS 2** pipeline for real-time decision-making
- Addressed challenges such as lighting variation, motion blur, and embedded performance

## Robocon 2026 Vision Pipeline

- End-to-end perception pipeline bridging vision outputs to robot control logic
- Designed modular ROS 2 nodes with clear message interfaces
- Focused on robustness and competition-ready reliability

## **Drone Controller App**

- Android ground-station UI for drone telemetry and control
- Built with **Qt/QML, C++, MAVLink**
- Emphasis on clean UI architecture and scalability

## **Android Robot Controller App**

- Mobile application for real-time robot control via **UDP and ROS 2**
- Implemented telemetry visualization and command exchange
- Focused on latency and connection stability

## **Embedded & IoT Systems**

- Plant monitoring & auto-watering system (Arduino, ESP8266, cloud logging)
  - Water contamination detection system (ESP32, ESP-IDF, ThingSpeak, MATLAB)
  - Wireless ESP-NOW digital clock with low-latency communication
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# **TECHNICAL SKILLS**

## **Programming Languages**

- Python, C, C++, Java, Dart

## **Frameworks & Tools**

- ROS 2, OpenCV, Qt/QML, Flutter, ESP-IDF, Arduino
- MAVLink, UDP networking
- Linux-based development

## **Domains**

- Embedded Systems
- Robotics & Computer Vision
- IoT & Sensor Networks

- System Integration & UI Architecture
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## MAIN INTERESTS

- Robotics & autonomous systems
- Embedded and low-level software
- Technical documentation & teaching
- Cross-disciplinary engineering projects