



# Technical Challenge

## Specification Book

# Agri-Hope

## Problematic :

In many parts of the world, women are at the heart of agriculture working the land, growing food, and supporting their families. Yet they often do this with very little support.

These women face big challenges:

- They don't have easy access to modern tools or smart farming technologies
- They rarely get proper training on sustainable farming methods
- They struggle to reach markets, get weather updates, or use financial tools online
- And they're often left out of conversations about innovation and decision-making in agriculture

Because of this, their work is harder, their income is lower, and their voices aren't heard.



## Goals :

This technical challenge aims to develop innovative, technology-driven solutions that empower farmers to overcome agricultural challenges.

Participants are encouraged to investigate and offer novel solutions in the following areas (but not limited to):

### **1. Smart Farming Technologies**

Design innovative tools and systems that use AI, IoT, robotics, or drones to support small-scale farming. Your solution could monitor crops, soil, or weather in real time, Automate tasks. The goal is to Help women farmers make better decisions and improve productivity.

### **2. Digital Marketplaces & Agri-FinTech**

Build web or mobile platforms, chatbots, or apps that connect women farmers to nearby buyers by offer pricing tools, harvest scheduling to provide financial literacy resources and access to microloans



### **3. Education & Accessible Agri-Learning**

Create apps, chatbots, or digital platforms that make it easy for women in rural areas to learn and share knowledge. These tools can teach smart farming techniques, promote eco-friendly practices, and connect women through local knowledge networks.

### **4. Open Innovation :Think Beyond the Tracks**

Build an impactful solution that empowers women in agriculture through technologies.



## **Challenge Details :**

### **A. Instructions & Deliverables:**

#### **I- Final Presentation Guideline**

- Format:
  - Prepare a 5-minute presentation in pptx format or as a shareable link with open access (Canva).
- Content to Include:
  - Introduce your team members, their roles, and areas of expertise. Share your team's vision.
  - Problem Definition, clearly explain the problem your project addresses.
  - Proposed Solution , Present your solution and its key features.
  - Development Methodology, Briefly describe your approach: technologies, tools, or platforms used.
  - Implementation & Impact Strategy, Outline your plan of action, key milestones, timelines, and next steps.

#### **II- Demonstration Video :**

- A short video demonstrating your solution in action, highlighting key features and functionality.

#### **III-GitHub Repository & Technical Report**

Submit a public GitHub repository that includes:

- Source Code: All relevant files for your project with readme file showcasing how to set up your solution.

- written report PDF (max 10 pages) summarizing all your documentation.

## B. Evaluation Grid

### 1. Innovation and Creativity ( 10 pts)

- How Original Is Your Idea ?(4 pts )
- Does it approach the challenge in a unique way?(3 pts )
- Could it change the game for women in agriculture?(3 pts )

### 2. Technical Implementation (10 pts)

- Can it realistically be built and used? (5 pts)
- Is there a working demo or clear proof of concept? (5 pts )

### 3. Relevance to the challenge (10 pts)

- Can it grow and last in real-world settings?(5 pts)
- Will it truly empower rural women and improve lives? (5 pts )

### 4.Pitch & Presentation (10 pts)

- Is the idea explained clearly ?(4 pts)
- Is the team confident and well-prepared? (3 pts )
- Is the video or live demo clear and impactful? (3 ps)

### 5.Bonus Points ( 5 pts)

Teams can earn extra points for going the extra mile in impact, inclusion, and effort:

- Women in the Team (+2 pts)  
At least one woman actively participated on the team.
- Resource Investment (+3 pts)  
Teams that invest in physical materials ( sensors, robotics kits) or cloud-based tools and clearly document their use in the final report and pitch.

## C.Rules

- Team Composition: Each team may include a maximum of 4 members.
- Pitching Format & Duration:
  - Pitch Presentation: 5 minutes
  - Demonstration Video: max 2 minutes
  - Q&A with Jury: 3 minutes

## Contact

- Technical Challenge Team Lead Wie ACT 4.0  
Email : [salsabil.guerbej@ieee.org](mailto:salsabil.guerbej@ieee.org)
- Technical Challenge manager Wie ACT 4.0  
Email : [dridisiwar68@ieee.org](mailto:dridisiwar68@ieee.org)