UTM

UNIVERSITI TEKNOLOGI MALAYSIA

SECJ3553-15 KEPINTARAN BUATAN

(ARTIFICIAL INTELLIGENCE)

ASSIGNMENT 3

Prepared by

LINGGESRAJ A/L SMANIMARAN

A21MJ8032

7.0 PEAS Model

7.1 Formulate the Solution by Using PEAS Model

Crop Diseases Detection	Before	After
Performance Measure (P)	The performance measure refers to how well the AI system identifies and classifies crop diseases in images.	- The AI system achieves high accuracy in identifying crop diseases, minimizing false positives and false negatives. - The system processes images rapidly, providing real-time or near-real-time results to farmers. - The reliability of the system is measured by its ability to adapt to different crop types and environmental conditions.
Environment (E)	The environment is the field or location where crops are grown, containing various factors such as different crop types, weather conditions, and potential disease or pest infestations.	- The AI system operates effectively in various agricultural settings, accommodating different types of crops and environmental factors. - It adapts to changes in weather, lighting, and seasonal variations, ensuring robust

		performance in dynamic agricultural environments.
Actuators/Effectors(A)	Actuators are the components that carry out actions in response to the AI's decisions. In this context, actuators might involve alerting farmers or triggering automated systems to apply pesticides.	-The system triggers alerts to farmers, providing detailed information about the identified crop diseases or pests. - Recommendations for appropriate actions, such as pesticide application or quarantine measures, are communicated to farmers. - Integration with automated crop protection systems allows for timely and targeted interventions based on the AI's analysis.
Sensor (S)	Sensors gather information from the environment; in this case, they would capture images of crops for analysis.	-The AI system utilizes advanced sensors capable of capturing high-resolution images with precision.