Abstract English:
Artificial Intelligence for Sustainable Agriculture: This video presentation explores the potential of Artificial Intelligence (AI) in transforming sustainable agriculture. We will discuss how AI can be used to increase crop yields, reduce water and fertilizer usage, and improve soil health. AI techniques like machine learning and deep learning can be harnessed to analyze vast amounts of data collected from sensors in fields, leading to better decision-making on planting strategies, irrigation practices, and pest control. AI has the potential to revolutionize sustainable agriculture by ensuring sufficient food production for future generations while safeguarding the environment.

Abstract Kiswahili:
Akili Bandia kwa Kilimo Endelevu (Artificial Intelligence for Sustainable Agriculture): Uwasilishaji huu wa video unazungumzia uwezo wa Akili Bandia (AI) katika kuboresha uendelevu wa kilimo (the ability of AI to improve agricultural sustainability). Tutajadili jinsi AI inaweza kutumika kuongeza uzalishaji wa mazao (how AI can be used to increase crop yields), kupunguza matumizi ya maji na mbolea (reduce water and fertilizer usage), na kuboresha afya ya udongo (improve soil health). Mbinu za AI kama vile ufundishaji wa mashine (machine learning) na ujifunzaji wa kina (deep learning) zinaweza kutumika kuchambua data kubwa (big data) kutoka kwa sensorer mashambani (sensors in fields) ili kufanya maamuzi bora kuhusu upandaji (planting), umwagiliaji (irrigation), na udhibiti wa wadudu (pest control). AI inaweza kuleta mapinduzi katika kilimo endelevu kwa kuhakikisha uzalishaji wa chakula cha kutosha kwa vizazi vijavyo (ensure sufficient food production for future generations) huku tukilinda mazingira (while protecting the environment).

Abstract Kikuyu:
Gaturaga wa Ũhoro wa Mahiga na ũcio wa IT (The Role of IT in Sustainable Agriculture): Uhandu wa rũũ rwa iria rũnene rĩĩĩtũĩte no ũhoro wa Mahiga ũ rũgĩrwo na IT (This presentation explores how IT, specifically Artificial Intelligence (AI), can contribute to sustainable agriculture). Tũragĩrwo no nganya ya IT iria ing'ĩtungia ng'arĩ ya kurĩma iria nyingi (We will discuss how AI can be used to cultivate more crops), no kucegera rũgĩrwo rwa maĩ na műhũrũ (and reduce water and fertilizer usage), no kũũmba mũcere wa hinya (while improving soil health). Mũgunda wa IT wa iria rũnene rĩĩtũĩte (AI in agriculture) ũratumia rũcandiki rwa mathina (machine

learning) na rũcandiki rwa rũũgĩrwo (deep learning) rũ rũgĩra data nyingi (to analyze vast amounts of data) no rũtunga ng'arĩ ya kurĩma na rũgĩra maamuzi marĩ (to improve farming practices and decision-making).