



**KILIMANJARO INTERNATIONAL INSTITUTE FOR
TELECOMMUNICATIONS, ELECTRONICS AND COMPUTERS**
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**Course Title: Improved Healthcare and Agriculture through Artificial
Intelligence (AI)**

Duration: 5 days

Dates: 27th April to 2nd May 2020

Venue: KIITEC, Arusha -Tanzania (Along Nelson Mandela road - Moshono)

**Tuition Fees: Equivalent of Tanzania shillings 500,000.00 per participant which is
inclusive of tea/coffee and lunch**

**Prerequisites: Knowledge of IT and its use is desirable, but computer programming
shall be an added advantage**

**Target group: Senior health workers, medical doctors, clinical officers, lab technicians,
health insurance practitioners, agriculture officers, agriculture extension
officers and researchers and administrators**

**Delivery Method: Lectures, group-paced discussions, presentations with structured
hands-on activities/labs**

Course Description:

This highly sought-after program, is intended to introduce participants to the potential applications of the new and emerging technology of Artificial Intelligence (AI)

The program will focus on Healthcare and Agriculture sectors in the local context (African environment).

The course will cover the sub-areas of AI, namely Machine Learning (ML), Data Science and Deep Learning (DL), Data Science and Deep Learning

Note: Each topic will have extensive hands on session using datasets from health or agriculture sectors

Course objectives:

At the end of the course, participants shall be able to:

- Understand the benefits of adopting AI in Healthcare and Agriculture sectors
- Understand the difference between machine learning and deep learning in AI
- Understand the fundamentals Python programming language and Numpy and Pandas for data analysis in Healthcare and Agriculture in AI
- Understand what is required to implement AI in both Healthcare and Agriculture sectors

Course outline:

Day 1

- AI applications in Healthcare and Agriculture
- Introduction to Python for Data Science
- Data Analysis using Numpy
- Data Analysis using Pandas
- Data Visualization

Day 2

- Machine Learning Introduction
- Linear Regression

Day 3

- Logistic Regression
- Decision Trees

Day 4

- Deep Learning Fundamentals
- Lab sessions on Google Colaboratory

Day 5

- Tensorflow basics
- Lab sessions on Google Colaboratory

Resources required:

If possible please come with your Laptop:

Some training software shall be loaded on to your laptop for exercises