



AFRICA CENTER OF EXCELLENCE IN MATERIALS PRODUCT DEVELOPMENT AND NANOTECHNOLOGY (MAPRONANO ACE)

Makerere University



ARTIFICIAL INTELLIGENCE, MACHINE LEARNING & BIOINFORMATICS SHORT COURSE TIMETABLE **October 4th – 7th 2021**

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
Date	4th	5th	6th	7th
8:00-9:00 HRS	Registration and Welcome Remarks: Prof. Charles Ibingira, Principal (MakCHS). Prof. John Baptist Kirabira PI MAPRONANO ACE Mr. Brian Mujuni Coordinator, MAPRONANO ACE Dr. Daudi Jjingo Director ACE Bioinformatics IDI	THEORY: THEORY: Neural Networks Sserunjogi Richard Nelson	THEORY: Part I Overview of LINUX/UNIX command lines Stephen Kanyerezi	PRACTICAL; Variant calling and downstream analysis Stephen Kanyerezi





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9:30-10:15 HRS	THEORY: Introduction to Ethics of AI Dr. Daudi Jjingo	THEORY: Natural Language Processing (NLPs) Sserunjogi Richard Nelson/ Dr. Daudi Jjingo	THEORY: Part II Introduction to NGS and applications Dr. Gerald Mboowa	Closing Remarks: Certificate Issuance --Prof. Charles Ibingira Principal MakCHS -Prof. JB Kirabira PI MAPRONANO ACE -Dr. Daudi Jjingo, Director Bioinformatics IDI Mr. Brian Mujuni Coordinator, MAPRONANO ACE
10:00-10:30 HRS	BREAK	BREAK	BREAK	
10:30-11:30 HRS	THEORY: "Artificial Intelligence and Machine Learning Platforms" Atwine Mugume	THEORY: Introduction to Deep Learning Sserunjogi Richard Nelson	THEORY: Introduction to R & Data analysis Dr. Eric Katagirya	
11:30-12:30 HRS	THEORY: Regression – Linear regression & Logistics regression Sserunjogi Richard	THEORY: Decision Trees Atwine Mugume	THEORY: Introduction to R & Data analysis Dr. Eric Katagirya	





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12:30-13:30 HRS	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK	
13:30-14:30 HRS	THEORY: Clustering and Classification Sserunjogi Richard	THEORY: Support Vector Machines (SVM)— Sserunjogi Richard Nelson	THEORY: Bayesian Statistics Alfred Ssekagiri	
14:30-15:30 HRS	THEORY: Dimensionality Reduction Sserunjogi Richard	PRACTICALS: Bioinformatics, AI Workflow—Computational infrastructure, HPC data acquisition -- A practical demonstration Rodgers Kimera	PRACTICALS: Introduction to R & Data analysis Dr. Eric Katagirya	
15:30-17:00 HRS	PRACTICAL: AI & ML Atwine Mugume / Sserunjogi Richard	THEORY: Introduction to Unix/Linux Stephen Kanyerezi	PRACTICAL: Genome Assembly & Annotation, Sequence Analysis & Interpretation Dr. Gerald Mboowa	

Contact person: Daudi Jjinga, Mike Nsubuga, Kanyerezi Stephen, Mujuni Brian, Sheba Kakama





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Other Facilitators

1. Dr. Gerald Mboowa
2. Dr. Daudi Jjingo
3. Dr. Eric Katagirya
4. Atwine Mugume
5. Alfred Ssekagiri
6. Sserunjogi Richard Nelson
7. Stephen Kanyerezi
8. Prof. Alamgir Hossain, Teesside University (UK)

