

East-African School for Young Researchers on Advanced Machine Learning Techniques

9–22 Jul 2025 University of Nairobi, Chiromo Campus

Africa/Nairobi timezone

Dr Ian Kaniu Department of Physics University of Nairobi

Email: <u>ikaniu@uonbi.ac.ke</u>

EASY-ML (2025) Participants



About the Workshop

- 2-Week Intensive Workshop: Hosted by the University of Nairobi.
- Goal: Equip young researchers in East Africa with advanced ML skills.
- Learn in-demand (machine learning) skills:
 - Ethics in Al
 - Neural Networks, CNNs
 - Dimensionality Reduction
 - Unsupervised Learning
 - Transfer Learning
- Focus on Practical Application: Real-world examples from your research work.
- Hands-on Learning: Gain practical experience through interactive exercises.

Program Highlights

- Thursday, July 10th: Official Opening Ceremony (9:30 10.30 AM)
- Sunday, July 13th: Excursion Day at Hell's Gate National Park, Naivasha
- Mon & Tue, July 21-22: Participants-Led Projects
- Mon evening, July 21st: Gala Dinner
- Daily Intensive Sessions: Lectures + practicals
- Evening Sessions: Socials, poster presentations, Invited Guest Presentations
- All sessions held at: Postgraduate Computer Lab
- Catering Services: Arziki, UNES

5 Min (Ice Breaker)

"Know Your Cohort: The EASY-ML Diversity Puzzle"

Stand Up If...

- 1. Replace the amazing diversity in this room!
- 2. When you hear a statement that applies to you stand up (briefly and then take a seat when I move to the next question)
- 3. •• Look around. Learn something new about your peers!

"Look around. This is your **TEAM**. Your **NETWORK**. Your **COMMUNITY**.

•

.

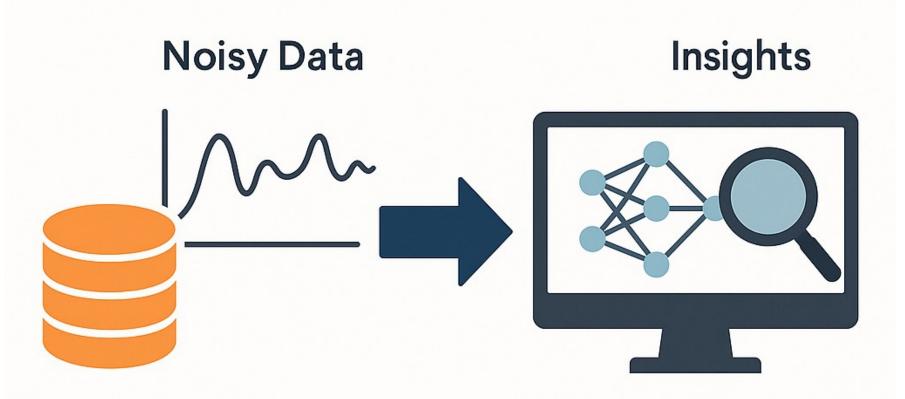
.

You're not just here to learn ML – you're here to **BUILD SOMETHING** powerful together."

Why Machine Learning?

From Data to Discovery

Machine learning enables new insights in research

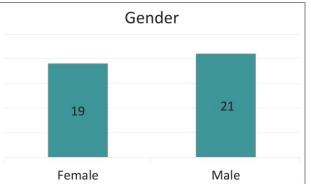


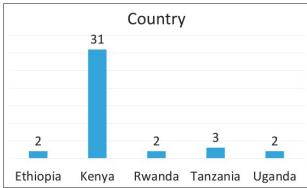
EASY-ML (2025) Participants

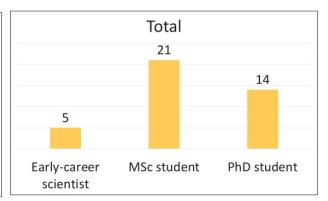


EASY-ML SELECTED PARTICIPANTS









Command Line / Linux Operating System



Data visualization and exploration

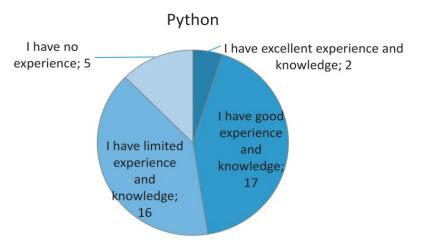


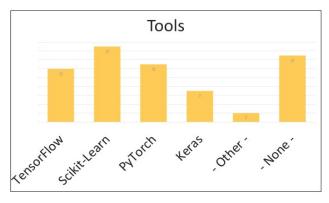
EASY-ML (2025) Participants



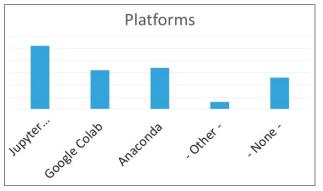
EASY-ML SELECTED PARTICIPANTS (2)











Expected Outcomes

- 1. Gain Valuable Skills
- 2. Knowledge Exchange
- 3. Inspire Innovation and Creative Thinking
- 4. Networking and Collaboration
- 5. Inspire Future Projects
- 6. Community Building

EASY-ML (2025): Facilitators

- 12 Organizers; 6 Lecturers; 4 TAs, ~15 Technical & Admin Staff

Teaching Assistants

- 1. Dr Thomas Njoroge: Karatina University
- 2. Jeremiah Thuku: Kenyatta University
- 3. David Gichohi: Dedan Kimathi University of Technology
- 4. Samson Kinyanjui: Dedan Kimathi University of Technology

Technical Team

- 5. Caroline, Rahab & Maina: Department of Physics:
- 6. Kamau & Team: Department of Computing & Informatics
- 7. Eunah & Team: Cooperate Affairs, UoN
- 8. Beatrice, Leornard & Mark: UoN Advancement Office
- 9. UNC TV Team: Department of Journalism and Mass Communication

EASY-ML (2025): Facilitators

Organizers

- 10. Prof Francis Nyongesa: Department of Physics, UoN
- 11. Dr Ian Kaniu: Department of Physics, UoN
- 12. Dr Dimitris Varouchas: Irene Joliot-Curie Lab (CNRS)
- 13. Dr Lydia Roos: Laboratoire de physique nucléaire et de hautes énergies (CNRS)
- 14. Dr Jeremiah Kebwaro: Karatina Universtity
- 15. Dr James Mugambi: South Eastern Kenya University
- 16. Dr Stéphanie Gautier: Montpellier University, Geosciences (CNRS)
- 17. Dr Livingstone Ochillo: Jaramogi Oginga Odinga University of Science and Technology
- 18. Dr Lydia Olaka: Technical University of Kenya
- 19. Dr Lucy Kiruri: Kenyatta University
- 20. Dr Christel Tiberi: Montpellier University, Geosciences (CNRS)
- 21. Prof Peter Waiganjo: Department of Computing & Informatics, UoN

Lecturers

- 22. Dr Claire David: African Institute for Mathematical Sciences, South Africa
- 23. Dr Edna Milgo: Open University of Kenya
- 24. Dr Kinyua Gikunda: Dedan Kimathi University of Technology
- 25. Dr Charles Ndung'u: University Paris-Saclay, France
- 26. Dr Isabelle Rocamora: Université Grenoble-Alpes, France
- 27. Dr Luca Cadamuro: Irene Joliot-Curie Lab (CNRS)

House Keeping Rules

- The workshop is packed (7:45 am 6:00 pm). <u>Please BE</u>
 <u>PUNCTUAL</u> throughout the week.
- Daily registration only in the mornings (7:45-8:00 am). <u>Late</u>
 <u>arrivals will be marked absent</u>. Sessions start at 8:00 am
 sharp.
- Meal allowance (issued in the evenings) will be based on daily attendance.
- Certificates will be issued on the last day, but require attending all sessions and passing a short assessment test.
- You will be reimbursed for travel costs on the last day.
- Remember: Your active participation throughout the week is key to a successful learning experience and earning your certificate!