Ismail Kaaya

solar**train**

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I was born in Uganda and completed my B.S. degree in physics from the International University of Africa, Khartoum, Sudan, and the Postgraduate Diploma degree in condensed matter physics from Abdus-Salam International Center for Theoretical Physics, Treiste, Italy. With the passion to apply my knowledge of theoretical physics in solving current problems like the climate crisis, led me to do a M.S. degree in renewable energy science and technology from Ecole Polytechnique, Palaiseau, France. At the very perfect time, I got the chance to join Solar-Train to continue my career in renewable energy.

I am working on lifetime prediction and forecast of PV modules as well as systems. My journey in Solar-Train gave me the opportunity to solve problems in both academic and industrial perspectives.

During the project I have learnt in many ways and got various opportunities to disseminate my knowledge both to the leading experts in this field at international conferences and also to the non-expert groups in my home country through local workshops and trainings. I was even featured on local television.



Explaining proper handling of a module (in order to increase its lifetime) to the local user during my visit to Bidi Refugee Settlement in northern Uganda

The key results of my work can be summarized as followed:

- Developed analytical models for sensitivity analysis of photovoltaic modules worldwide
- Developed a methodology for PV lifetime forecast using very limited degradation history
- Proposed a hybrid model combining physical and data-driven approaches for lifetime prediction and evaluation

For me this has not only been a PhD, but also a journey to explore, to widen my scope in the solar energy sector and to share my experience and knowledge both to experts and non-expert groups. This has been my driving force that made my journey an exciting experience. Indeed, I am planning to continue my career in the energy field.



My Solar-Train story

"We learn from each other!"

The unique opportunity of working with the Marie Curie fellowship has been for me the diversity of knowledge, the cultural exchange, as well as the opportunity for networking. Apart from the experts in the consortium, I have build managed to connections with other experts during conferences and other gatherings.

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