 

**IEEE PES MMU CHAPTER VIRTUAL EVENT REPORT**

On 23rd November, 2022 we held our first virtual event from 8:00pm to 9:15pm covering the topic on “THE FUTURE OF GLOBAL TRANSPORTATION: E-MOBILITY”. The virtual event which took place through the Google meets online space had an attendance of 19 members. For the topic above, we were taken through by Evans Abiero, a production and mechanical engineer and Melon Komesha, an electrical engineer both working at Roam Motors.

The two engineers covered the topic exemplarily well as they educated us about the fast growing e-mobility sector in our country. They told us about the company’s vision to electrify Africa one vehicle at a time. They highlighted that the main problem that their company aimed to solve the rampant air pollution in our country and the main way that they could solve this was through first electrifying public transport. The above move is aimed at ensuring that Sustainable Development Goal 13: Climate Action is achieved. We were informed of their current introduction of the Roam Rapid electric bus which is currently plying the Nairobi to Thika route and the production of the Roam Air electric motorbikes.

Aside from the information on how the company was performing, we also got the chance to be taught about how an electric vehicle operates and the interesting concept on ***Regenerative Braking*** whereby the bike motor converts into a generator when the brakes are applied in order to restore back the power lost during the travel. We were also told that a fully charged bus can cover up to a distance of 360Km while a motorbike can cover up to 90Km when fully charged. During the event they also highlighted some of the challenges that the e-mobility sector in our country is facing which include: unavailability of locally made parts, High capital investment, short diving range and speed, Expensive batteries, Longer charge time for both buses and bikes, inadequate charging stations in the country, maintenance of the batteries, High electricity power bills and electric waste disposal. Despite the challenges they are currently facing, the two engineers were positively reassuring us that they are already working on solutions to the above problems. Among the advantages highlighted was that the electric vehicles are safe to drive in that their Centre of gravity is lowered making the car stable, they are cost effective, they require low maintenance as compared to the ICE(Internal Combustion Engine) cars and that the electric car batteries have a longer life of up to 5 years.

The event was very interactive as members present got to ask a lot of questions concerning the field. The questions ranged from careers to electrical and mechanical engineering related theories to features contained in the Roam rapid bus and roam air motorbikes. At the end of the session the engineers encouraged us to pursue any field that we’re really interested in and to work hard in what we like. They also got to share their contacts and official e-mails whereby interested students could contact them in order to be connected to growing opportunities in the e-mobility sector.

  