Sustainable Energy Bike Lanes with Applications in the City of Kuala Lumpur, Malaysia

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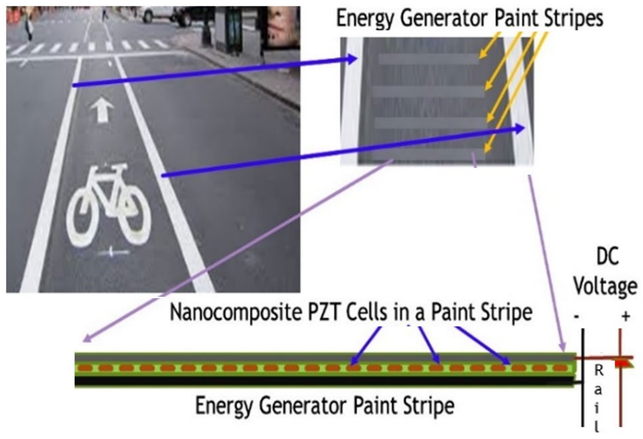
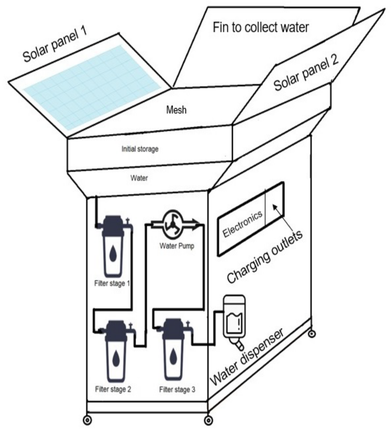
- Kuala Lampur city has ~8 million people and growing rapidly. City has seven miles of dedicated bike lanes. City needs (a) green mobility targets, (b) sustainable energy and (c) green lifestyles.
- Prairie View A&M University (PVAMU) has developed Energy Generating Pad (EGP) for bike lanes to produce renewable energy from bikes.
- Universiti Tenaga Nasional (UNITEN) collaborates with PVAMU to deploy EGP and rainwater purifying kiosk for drinking and charging bikes.

Energy Harvesting System for Bike Lanes

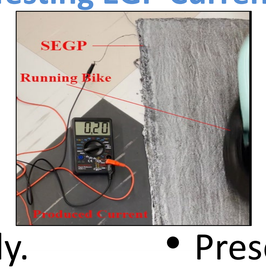


Rainwater Purifying Kiosk



Testing EGP Voltage

Testing EGP Current



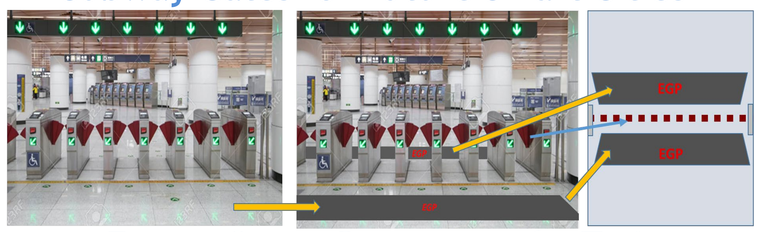
Testing the Kiosk

- Novel EGP technology proves to produce adequate energy production and it is highly mechanical stress tolerant.
- The kiosk is developed and tested successfully.
- City of Kuala Lumpur has collaborated to deploy EGP on the city bike lanes.
- City will benefit to serve bike riders with drinkable purified rainwater from lane-side kiosks.
- EGP energy stored in kiosk will charge bikes.

- A new type of renewable energy source is developed successfully.
- Novel EGP technology has two innovation IPs that are secured at PVAMU by filing USPTO patents.
- Technology transfer to UNITEN has been made in Feb 2022.
- UNITEN is producing EGPs to deploy on the city's bike lanes.

- Presented Project at the World Cities Summit 2022 in Singapore. Also, a few international meetings that have identified interested agencies who identified applications interested to create using EGP technology.
- Various data will be analyzed for monitoring energy and water produced, usages including charging bikes and other USB devices for improvements.

Subway Gates for Future Smart Cities



Future Smart Doorways of a Train

Entrance of Sea World at San Antonio, Texas, USA gets 18+ Million Visitors in summer.

Large Modern Playground has Recycled Rubber Materials on the Surface.

Major Airport's Counters are Almost Always Busy, Lines can Produce Energy from EGPs.

The Main Entrance of a Multi-Storied Business Building can Produce a Lot of Energy from EGPs.

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