

# **Development of a Common Waste Combustion System for Generating Electricity at Remote Area**

## **Abstract**

Malaysia's daily amount of municipal solid waste (MSW) has rapidly increased. This causes the landfills number to increase due to inadequate waste management systems. Apart from that, Malaysia depends on non-renewable resources for electricity generation which could have a significant effect on the environment. Therefore, this study proposed to reduce landfills in Malaysia in a proper way and supply electricity using municipal solid waste as a renewable resource. In this study, the combustion of municipal solid waste (MSW) produces steam, which will rotate a turbine that is connected to a dynamo. Then, the energized dynamo will supply electricity to appliances including a direct current motor. The motor shaft then rotates the dynamo shaft in the pulley system which causes the electricity to flow in a closed loop. In this system, a pressurized container is crucial to produce sufficient steam. Based on the experimental setup, it was observed that continuous electricity was successfully achieved by looping the system using a pulley on the dynamo and motor.