

## **Abstract**

Energy is the basis of all activities. A lack of energy sources is a great problem which need to solve. Without energy, nothing moves or transforms; and so a sustainable society can only exist based on a sustainable energy system. Waste to Energy (W to E) is a technology can give alternative solutions to face this problem. Waste is any substance which is discarded after a primary use or it is worth less, defective and of no use. This research carried out in Khartoum and Sudan University of Science and Technology. Medical waste was chosen because it is a special category of waste. The thermal treatment applied is the pyrolysis. The purpose is to get bio-oil liquid and the test show that the gross calorific value is 46601.33 Kj/kg. Also, the work has been extended to propose a strategic framework to be used as roadmap for different stakeholders for better medical waste management.