

RESEARCH CATALOGUE

ENVIRONMENTAL
AND CLIMATE
SCIENCE



JGSEE



Center of Excellence on
Energy Technology & Environment



Celebrating
60 years



Transforming society.
Defining the future.

LANDFILL MAPPING USING LOW-COST UNMANNED AIRCRAFT SYSTEM PHOTOGRAMMETRY



Mr. ABHISIT BHATSADA

Master of Engineering in Environmental Technology and Management

Advisors

Assoc. Prof. Dr. Savitri Garivait

Assoc. Prof. Dr. Sirintornthep Towprayoon

Advanced Greenhouse Gas and Aerosol Research (AGAR)
The Joint Graduate School of Energy and Environment

This research was carried out during 2017-2019. It aimed at developing optimal flight configurations and ground control point formation for landfill and open dump mappings.

In this study, a low-cost unmanned aerial vehicle (drone) was used for final disposal site mapping in which appropriate flight configurations were determined concerning frontal overlap, side overlap, ground sampling distance, and ground control point. This aimed at improving the accuracy of disposal site mapping.

The findings of this research can be applied to all disposal sites in Thailand. This mapping technique provides higher accuracy compared to the positional accuracy standards of digital geospatial data.

During this research, I also had an opportunity to map the Nay Pyi Taw Waste disposal site in Myanmar. The findings of this study have been published in the Research and Development Journal of KMUTT.

