

PERFORMANCE ANALYSIS OF CHARCOAL BARBEQUE SET WITH AN AIR VENTILATION SYSTEM

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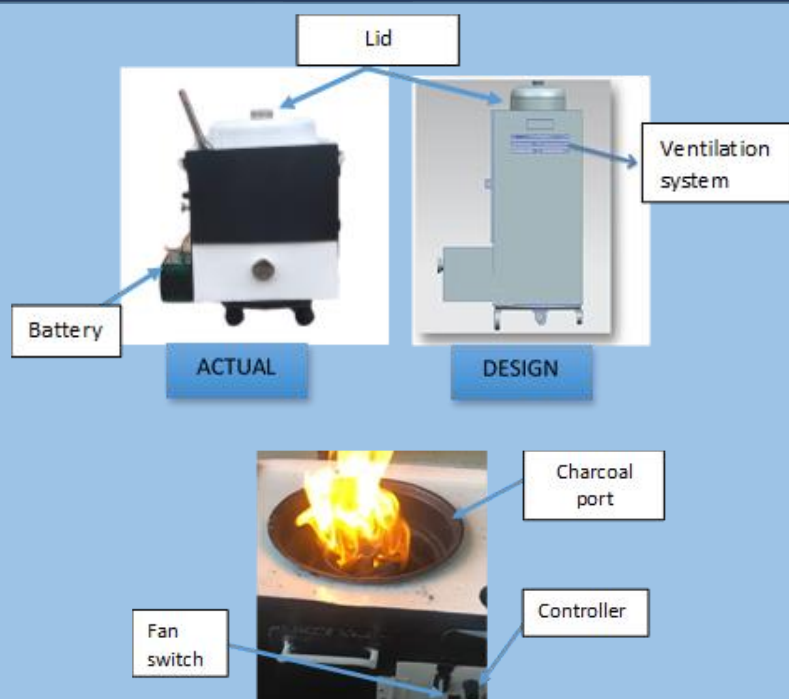
PRODUCT BACKGROUND

The design of this air ventilation barbeque system is more efficient and user-friendly compared to the conventional barbeque set. A portable, easy to set up and flexible barbeque set for indoor and outdoor usage. It also improves barbeque quality by regulating the fitted blower attached to the barbeque set with a systematic air ventilation system. The meal needs less time to grill, and no manual fanning is needed.

OBJECTIVES

- 1) To evaluate the performance of heat transfer.
- 2) To study the air emission by measuring Indoor Air Quality, Particulate Matter and Trace Metal content.

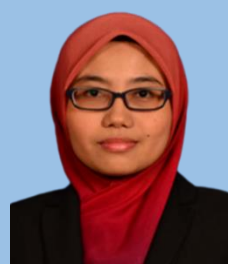
PRODUCT FEATURES



BENEFITS

- ✓ Portable: Compact barbeque set with hot rack that can easily to carry and move.
- ✓ Reduce cooking time and reduce smoke production.
- ✓ Reduce work load: No manual fanning required and easy cleaning.
- ✓ Safe to eat: Reduce polycyclic aromatic hydrocarbons, a cancer causing chemicals.
- ✓ Eco- friendly: Coconut shell charcoal produce less ash to environment.

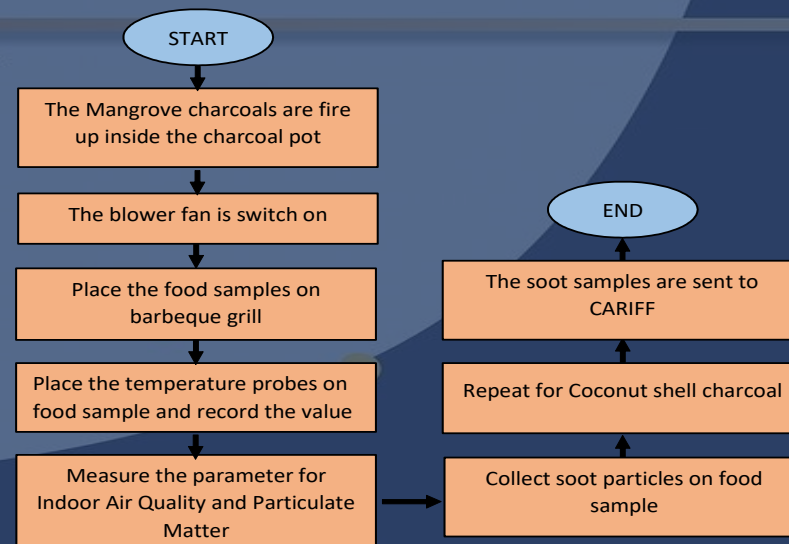
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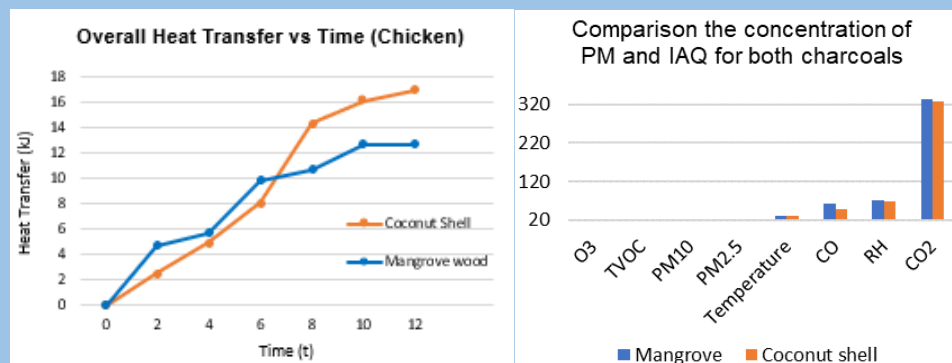
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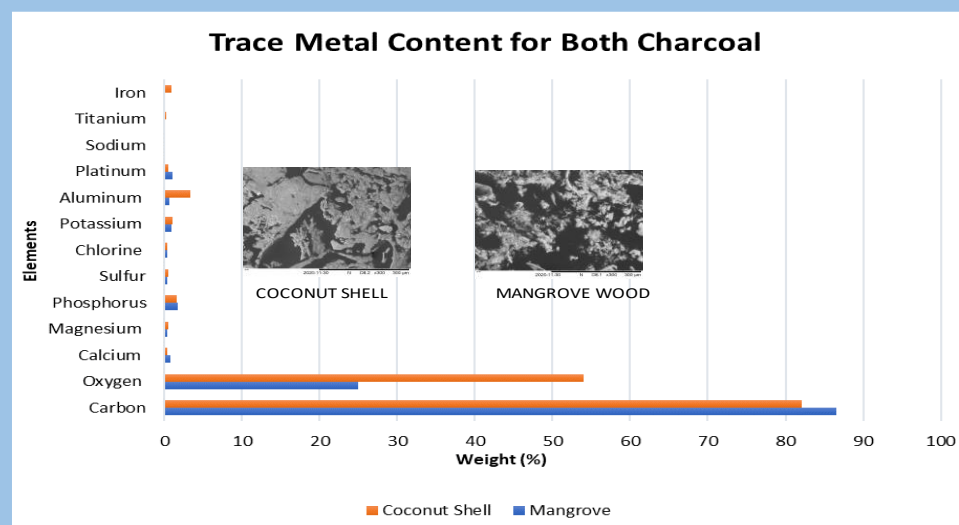
METHODOLOGY



RESULTS



- ↑ Smoke production
- ↑ Particles
- ↑ IAQ
- ↑ PM concentration
- ↑ Tiny soot on food sample
- ↑ Trace metal content



MARKETABILITY

- Market Survey: In 2016, about 1.47 billion U.S. dollars worth of grills and barbeques were sold in the United States. (Source: www.statista.com)
- Potential Market: Suitable for anybody who want to take for a picnic or camping.
- Expectation Selling Price: RM 150 – RM 200.
- Competitors: Weber Go-Anywhere. Lodge Sportsman, Cuisinart Grate Lifter.