

## CHAPTER V. CONCLUSION AND SUGGESTION

### 5.1 Conclusion

Based on the results of the research conducted, it can be concluded that:

1. Rubber wastewater has the potential to produce electricity through a Single Chamber Microbial Fuel Cell with the highest electrical voltage obtained on the 6th day with an average voltage reaching 228.1 mV.
2. Paddy field mud has the potential to produce electricity through a Microbial Fuel Cell Single Chamber with the highest electrical voltage produced on day 5 with an average voltage reaching 27.4 mV.
3. The highest electrical voltage in the combination of rubber wastewater and paddy field mud was in a ratio of 1:1 on the first day of 75.3 mV with a ratio of 1:1 being more potential than other ratios.
4. There were 6 bacterial isolates found on the MFC anode, namely MFC 1, MFC 2, MFC 3, MFC 4, MFC 5, and MFC 6. The identification results showed that 4 isolates were gram negative bacteria, namely *Citrobacter sp 1.*, *Citrobacter sp 2.*, *Citrobacter sp 3.*, *Citrobacter sp 4.*, 1 isolate was gram positive. bacilli namely *Clostridium spp.* and 1 isolate was a gram positive bacillus namely *Bacillus spp.*

## 5.2 Suggestions

Based on the research that has been carried out, it is hoped that for further research:

1. Ensure that the MFC equipment and electrodes used are in good condition so that the electricity produced is more optimal.
2. Adding more observation days for more precise current measurement data
3. Carrying out research using a variety of different anode and cathode pairs and adding treatments that can increase more efficient electricity production.
4. Carry out a more specific bacterial identification process using a species level identification kit.

