

## 6.1. CONCLUSIONS

After performing the necessary calculations and showing the figures for the gas cycle performance parameters such as total compressors work, thermal efficiency and specific fuel consumption due to variation of selected influences such as intercooler effectiveness, ambient temperature and turbine inlet temperature, the results show that the following conclusions:

1. The results have been obtained from these calculations approach to the results obtained from laboratory experiments in the other previous studies.
2. The intercooler using in the gas power cycle improve the output work by decreasing the compression work.
3. The intercooler effectiveness increase cause a decrease in the compression work and the thermal efficiency, on the other hand cause an increase in the specific fuel consumption.
4. Both of the ambient temperature and turbine inlet temperature increase cause an increase in the thermal efficiency and a decrease in the specific fuel consumption. Particularly the ambient temperature increase causes an increase in the compression work.

## **6.2. RECOMMENDATIONS**

Based on the results that have been obtained from calculations, it was recommend the following:

1. The previous calculations must be re-performed with taking into account the variation of the intercooler pressure.
2. Should be taken into account the values of specific heat affected by the variation of temperature during the compression and expansion processes.