

## **CHAPTER V**

### **CONCLUSIONS**

The results of the present study showed that a kenaf-UPE composite with optimum mechanical properties can be made with a fiber content of 30 wt%. The increase in treatment temperature, silane concentration, and time of treatment led to increased amount of silanol on fiber surface. Fibers treated with  $\gamma$ -MPS gave higher amount of silanol on fiber than with VTS. Silane with methacrylate as the organofunctional group can improve the mechanical and water adsorption properties of the composite better than a vinyl functional group. Increase in the amount of  $\gamma$ -MPS on fiber surface led to an increase in the mechanical properties of the composite while VTS had the opposite effect. An increase in silane treatment temperature led to improved properties of the composite.