

## ABSTRACT

Accuration of pointing is important in satellite communication. Because the satellite's distance to the surface of the earth's satellite is very long, antenna pointing is affect to received signal power because will reduce attenuation pointing [3].

To pointing parabolic antenna in this final assignment will designed a automation pointing controller to provide dynamic pointing in searching satellite. Parameters that used to get value azimuth and elevation angle in pointing of parabolic are satellite location and earth station location in latitude and longitude from GPS (Global Positioning System) in android smart. Elevation and azimuth angle are sent to controller use Bluetooth communication that will used by controller to manage parabolic antenna in pointing process by actuator motor.

The result of pointing controller operation show, this device has accuracy compass sensor accuracy is  $1.4^{\circ}$  and average error tilt sensor is  $3.15^{\circ}$ . Mechanics system have average error for azimuth angle is  $11.3^{\circ}$  and average error for elevation angle is  $1.2^{\circ}$

Keyword: Latitude, Longitude, Android, Bluetooth, Microcontroller, Elevation, Azimuth, Satellite