# *ABSTRACT*

*Monitoring using Unmaned Aerial Vehivle (UAV)s required some devices such as cameras and transmitters on UAVs and receivers in Ground Control Station (GCS). The biggest obstacle of this video delivery system is UAV distant mileage and irregular UAV movement. The further the distance traveled the smaller the power the video receiver receives. Therefore, an antenna that has great reinforcement is required so that the received power of the receiver remains maximized even though the distance traveled is very far and has a good polarization to accommodate the UAV that moves continuously.*

*This final project desained a microstrip antenna that can work at 5.8GHz frequency for video receiver application in UAV. The types of microstrip antenas made are microstrip with directional radiation pattern and circular polarization using the Diagonally Asymetric-Slotted Microstrip Patch (DASMP) technique, arranged in front-end parasitic. The target gain achieved, amount> 11.596dB obtained from the calculation of power link budget.*

*The result of the final Afsignment that has been done using DASMP technique can produce antenna with circular polarization. The resulting axial ratio is 1.301dB at a frequency of 5.8GHz and at VSWR bandwidth (5.740 - 5.88)GHz axial ratio of ≤ 3dB. Other specs are returnloss -17.900dB, VSWR 1.2918, 295MHzantenna bandwidth. The radiation pattern obtained at this antenna is unidirectional in which the obtained beamwidth is 20° both azimuth and elevation direction. The parasitic front-end technique can increase the gain of the antenna. In this final project obtained a gain of 4.405dB using 1 element of the director and at the moment added to 6 director gain obtained to 12.945dB.*

**Keyword:** Microstrip, DASMP, *front*-end parasitic, UAV, GCS, 5.8GHz