## ABSTRACT

Growth of telecommunication technology nowadays continues to progress. This is indicated by new emerging technologies. an example is broadcasting technology on television which allows the delivery of information directly, quickly and easily. To support these technology requirements, a device that can perform television functions is required. one of these devices is an antenna. Microstrip antenna types are suitable for telecommunication equipment, especially on television, which are currently very concerned about shape and size. In this research, a Yagi microstrip antenna was made. This research method uses simulation software Antenna Magus and CST Studio Suite 2018 to get antenna dimensions at 642 MHz frequencies and get good antenna parameter values. The next process after the simulation process is to carry out the fabrication process. After doing the fabrication, we continue to carry out the testing process for the microstrip antenna and compare the smulation results with the test results. The results obtained from this microstrip antenna design are to have a VSWR value of 1.018 and a Gain value of 5.56 dB and a return loss of -40.88 dB. Fabricated Yagi-Uda Microstrip antenna can capture 8 channels on analog TV and 9 channels on digital TV.

Keywords: microstrip antenna, TV receiver, CST Studio, Yagi-Uda, UHF.