

## **ABSTRACT**

*In recent years image processing is a field that is developing very rapidly along with technological developments, this has resulted in all multimedia devices can not be separated from the application of images. This research is an implementation of image processing to change the format of a video image and animated image into a smaller format in order to save the memory capacity used, this study uses a virtual machine in carrying out the process of changing the video and image formats created on the Google cloud platform.*

*The system in this study is called the transcoding process where the framing results in the animated film will be converted into Webp format and webp frame results will be combined into video with Webm format. This system uses the transcoding method included Parallel Computing as a method used to change the format of a video or image and Parallel Computing is used to speed up the process of transcoding. The parameters tested in this study are the use of transcoded processing time, memory usage and the quality of the results of the transcoded process.*

**Keywords :** *Image Processing, Transcoding, parallel computing, Webp, Webm, and google cloud platform*