ABSTRACT

Muhammad Risal, *A Web-based Closed-Circuit Television (CCTV) System* (supervised by **Rhiza S. Sadjad** and **Zulfajri B. Hasanuddin**)**.**

This is a design project to develop a web-based Closed-Circuit Television (CCTV) System which is considered more economical (the total cost is cut more than 60 %) than a standard CCTV system in the market. The system's hardware consists of several DC motor driven web-cameras centrally controlled by a CCTV server. Each web-camera is moved to all directions by two motors controlled by a microcontroller. The web-cameras produce video and picture files in ***.avi*** and ***.jpg*** formats respectively, sent directly to the CCTV server through the Internet or intranet. The size of the files are reduced by implementing the motion detect method and by compressing them to produce files in ***.rar*** format. The final results of the compression are less than 15 % of the original size for video files, and 50 % for the picture files. The compression and also the streaming process cause a considerable transport delay up to 13 seconds.