**ABSTRAK**

Emas Erbyand Anditya Harahap, 2018. PERANCANGAN APLIKASI VIRTUAL TIGA DIMENSI KAMPUS STIKI BERDASARKAN PROYEKSI ISOMETRIS, Tugas Akhir. Program Studi Desain Komunikasi Visual. STIKI – Malang. Pembimbing : Dr. Eva Handriyantini, S.Kom., M.MT Co. Pembimbing : Saiful Yahya, S.Sn., M.T

Kata Kunci : Aplikasi Virtual, Tiga Dimensi, Kampus STIKI, Proyeksi Isometris

Perancangan aplikasi virtual tiga dimensi berdasarkan proyeksi isometris ini dirancang sebagai media pendukung sistem komunikasi visual di Kampus STIKI. Banyak masyarakat umum dan calon mahasiswa dari dalam maupun luar Kota Malang datang untuk mengikuti kegiatan kampus seperti turnamen, seminar dan workshop, serta untuk mendaftar sebagai mahasiswa. Perancangan aplikasi virtual tiga dimensi berdasarkan proyeksi isometris dibuat agar masyarakat umum dan mahasiswa baru dapat lebih memahami tata letak bangunan dan ruangan di Kampus STIKI.

Media pendukung sistem komunikasi visual yang dibuat berbentuk aplikasi virtual agar memudahkan sistem penyimpanan, penggandaan, dan juga akses aplikasi. Bentuk dari bangunan Kampus STIKI divisualisasikan secara tiga dimensi dan dibangun dengan pemodelan *lowpoly* sehingga komputasi data menjadi lebih ringan serta diproyeksikan secara isometris sehingga setiap sudut dari bangunan dapat terlihat dan lebih informatif.

Aplikasi dibangun berbasis *desktop* dengan berformat *landscape,* memiliki ukuran 1920 piksel x 1080 piksel menggunakan Blender Game Engine. Hasil dari perancangan menghasilkan media utama, yaitu aplikasi virtual tiga dimensi Kampus STIKI berdasarkan proyeksi isometris bernama STIKIMap, dan beberapa media penunjang antara lain aplikasi android, CD instalasi aplikasi, poster, leaflet, kaos, stiker, gantungan kunci, *case handphone,* mug / gelas, x-banner, pin, dan buku note A5. Aplikasi desktop dapat berjalan di sistem operasi Windows, dan membutuhkan prosesor Dual Core 2Ghz CPU, memori 2GB RAM, kartu grafis 512MB kompatibel dengan OpenGL 2.1, dan kapasitas kosong sebesar 190MB. Sedangkan untuk aplikasi android dapat berjalan di versi 5.1+ (Lollipop) dengan ukuran 29MB. Berdasarkan hasil pengujian kepada 36 target sasaran, dapat diketahui bahwa aplikasi sudah sesuai dengan kebutuhan target sasaran.

***ABSTRACT***

*Emas Erbyand Anditya Harahap. 2018. THREE DIMENSION VIRTUAL APPLICATION OF KAMPUS STIKI BASED ON ISOMETRIC PROJECTION, Undergraduate Thesis. Study Program of Visual Communication Design. STIKI – Malang. Advisor : Dr. Eva Handriyantini, S.Kom., M.MT. Co. Advisor : Saiful Yahya, S.Sn., M.T*

*Keywords : Virtual Application, Three Dimension, Kampus STIKI, Isometric Projection*

*The design of a three dimension virtual application based on isometric projections is designed as a supporting media for visual communication systems on Kampus STIKI. There is a lot of general society and prospective student from outside and inside Malang City come to attend many of campus activities, such as tournaments, seminars, workshops, and to come to register as students each year. The design of a three dimensional virtual application based on isometric projections is made for general public and new student to better understand the layout of buildings and floor plan on Kampus STIKI.*

*Supporting media for visual communication systems that has been made in the form of virtual applications can facilitate the storage, multiplication, and better application access. Kampus STIKI building is visualized in three dimensions and built with lowpoly modeling so that data computation becomes lighter and is projected isometrically so that each corner of the building can be seen and more informative.*

*The application is based on a dekstop with landscape format, a 1920 pixel x 1080 pixel of resolution size and built in Blender Game Engine. The result of the design produced a main media, which is a three dimensional virtual application based on isometric projection called STIKIMaps, and several supporting media such as android application, CD installation package, poster, leaflet, shirt, stiker, keychain, handphone case, mug, x-banner, pin, and A5 sized notebook. The application may run on Windows operating system, and require a 2GHz Dual Core CPU, 2GB RAM of memory, a 512MB graphics card compatible with OpenGL 2.1, and an empty space of 190MB, whereas for the Android application requires 5.1+ version and an empty space of 29MB. Based on the test results to 36 target audience, it can be seen that the application is in accordance with the needs of the target audience.*