

ABSTRAK

Disinfeksi dan sterilisasi adalah proses yang menghancurkan atau menghilangkan bentuk kehidupan mikroba dan dilakukan di fasilitas layanan kesehatan dengan metode fisik atau kimia. Uap bertekanan, panas kering, gas EtO (*Ethylene Oxide*), plasma gas hidrogen peroksida, dan bahan kimia cair merupakan bahan sterilisasi utama yang digunakan di fasilitas layanan kesehatan. Proses sterilisasi terdiri dari *Phase Ready, Condition, Steril, Venting, Dry dan Completed*. Monitoring dan controlling berjalan untuk memonitor kinerja alat sterilisasi sehingga diperlukan bagi kepala satuan CSSD (*Central Supply Steril Department*). Alat sterilisasi ini menggunakan monitor HMI (*Human Machine Interface*) sebagai monitor yang dimanfaatkan koneksi *interface* LAN untuk bisa dikembangkan melalui jaringan internet kemudian disambungkan melalui PC (*Personal Computer*) dan cellular phone (*VNC Viewer*).

Jenis penelitian menggunakan metode penelitian dan pengembangan dengan tahapan analisis, perancangan, pengembangan, implementasi dan pengujian.

Setelah dilakukan integrasi antara unit kontrol *Sterilizer* (HMI), PC dan *cellular phone* maka didapatkan hasil sistem disambungkan melalui jaringan WIFI terkoneksi dengan baik, monitoring dan control melalui *cellular phone* berfungsi baik juga sehingga bisa meremote alat sterilisasi dari tempat lain.

Kata Kunci : *Sterilisasi, CSSD, HMI, WIFI*

ABSTRACT

Disinfection and sterilization are processes that destroy or eliminate microbial life forms and are carried out in healthcare facilities by physical or chemical methods. Pressurized steam, dry heat, EtO (Ethylene Oxide) gas, hydrogen peroxide gas plasma, and liquid chemicals are the main sterilization agents used in health care facilities. The sterilization process consists of Phase Ready, Condition, Sterile, Venting, Dry and Completed. Monitoring and controlling work to monitor sterilization performance is required for the head of the CSSD (Central Supply Sterile Department). This sterilization tool uses an HMI (Human Machine Interface) monitor as a monitor which uses a LAN interface connection to be developed via the internet network and then connected via a PC (Personal Computer) and cellular phone (VNC Viewer).

This type of research uses research and development methods with stages of analysis, design, development, implementation and testing.

After integration was carried out between the Sterilizer control unit (HMI), PC and cellular telephone, the result was that the system was connected via a well connected WIFI network, monitoring and control via cellular telephone also functioned well so that it could remotely sterilize equipment from other places.

Keywords: Sterilization, CSSD, HMI, WIFI