

## ABSTRACT

Fakultas Rekayasa Industri (FRI) is a faculty in Telkom University. FRI consists of two majors, Information System and Industrial Engineering. To support existing processes, FRI require an application that is able to handle some activities such as data exchange, data storage, the exchange of messages, and infrastructure support to develop application for the laboratory. In Fakultas Rekayasa Industri, there are some applications that are owned by the laboratory, the research study group, and administration division. Existing applications are not yet integrated and still managed personally by the laboratory, a study group research, and administration. In the process of data exchange, FRI yet have an application that can be used as a data exchange, so currently still using personal data storage media such as flash and hard drive and using social media services Facebook. To resolve the existing problems, needed a portal application that is able to integrate all applications that can handle all activities in Fakultas Rekayasa Industri. Private Cloud Computing is a Cloud Computing technology that is internal and just can be accessed in internal organization only. Software as a Service (SaaS) Private Cloud Computing is a Cloud Computing service that is available in application service. SaaS is a service that interact directly with the user because it has user interface. This research develops application design based on SaaS Private Cloud Computing service approach that can be used as private cloud based application in Fakultas Rekayasa Industri to support the activities of Fakultas Rekayasa Industri.

*Keywords: Cloud Computing, Private Cloud Computing, Software as a Service, Fakultas Rekayasa Industri.*