

# WORKLOAD ANALYSIS FOR DETERMINING THE OPTIMAL NUMBER OF EMPLOYEES (CASE STUDY: ENGINEERING DEPARTEMENT AND ADMINISTRATION DEPARTEMENT PT PLN (Persero) RAYON SIDOARJO KOTA)

Name : Alodia Fernanda  
Student ID : 2510.100.063  
Supervisor : Arief Rahman, S.T., M.Sc.  
Co-Supervisor : Naning Aranti Wessiani, ST., MM

## ABSTRACT

*Organizational unit workload is closely related with company's productivity. Many ways can be done in terms of the efficiency of human resources, one of them is to optimize the number of employees. PT PLN (Persero) is responsible for providing electrical needs. Demand of electrical needs are increasing every year. With the increased demand for electricity will affect the workload of employees. So, we need an analysis of workload measurement to determine the optimal number of employees that should be required of each office. In this study observe at Engineering Departement and Administration Departement.*

*Methods used in this study is load calculation method per office duties in accordance Keputusan Menteri Pendayagunaan Aparatur Negara no.75 tahun 2004 and NASA TLX with fuzzy logic. Keputusan Menteri Pendayagunaan Aparatur Negara no.75 tahun 2004 calculate the work load per office duties based on the time that assumed the task of physical workload, while NASA TLX calculate mental workload based on subjectivity. From the results of the mental workload calculations using the NASA TLX, processed again using fuzzy logic to get the workload per office duties for mental workload.*

*This study results there is a difference between the number of employees of existing conditions with the optimal number of employees proposed. In the existing condition amounted to 21 people and the optimal number of employees proposed 20 people.*

**Keywords:** *Fuzzy Logic, NASA TLX, Mental Workload Analysis, Optimal Number of Employees, Physical Workload Analysis*