

## INTISARI

### PENERAPAN SISTEM AKUISISI DAN PENGOLAHAN DATA DALAM ASPEK METROLOGI UNTUK KALIBRASI INSTRUMEN TRANSMITTER DI PT PERTAMINA EP ASSET 4 FIELD CEPU CENTRAL PROCESSING PLANT GUNDIH

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Telah dilakukan penelitian tentang kalibrasi pada ketiga jenis *transmitter*. Penelitian ini dilatarbelakangi karena adanya peraturan yang mewajibkan *transmitter* untuk ditera atau dikalibrasi secara berkala. Tujuan dari penelitian ini adalah untuk mengetahui nilai *error*, akurasi dan presisi dari instrumen *transmitter*.

Metode yang digunakan dalam penelitian yaitu dengan membandingkan hasil penunjukan pada *transmitter* dengan hasil penunjukan standar. Pengambilan data dilakukan di titik 0%, 25%, 50%, 75% dan 100% dari kapasitas maksimal *transmitter*.

Berdasarkan penelitian ini, didapatkan nilai kesalahan penunjukan *transmitter* masih ada pada batas kesalahan yang diijinkan (BKD). Hasil yang diperoleh adalah nilai *error* setelah melakukan kalibrasi *transmitter* yaitu : rata – rata nilai *error* DPT *Stream A* -0,01% , rata – rata nilai *error* DPT *Stream B* 0,03%, rata – rata nilai *error* PT *Stream A* 0,04%, rata – rata nilai *error* PT *Stream B* 0,05%, rata – rata nilai *error* TT *Stream A* 0,05%, rata – rata nilai *error* TT *Stream B* 0,08%. Nilai rata-rata akurasi dan presisi yang didapat setelah melakukan pengujian yaitu : nilai akurasi DPT *Stream A* 99,99% ; nilai presisi DPT *Stream A* 99,99%, nilai akurasi DPT *Stream B* 100% ; nilai presisi DPT *Stream B* 99,99%, nilai akurasi PT *Stream A* 99,99% ; nilai presisi PT *Stream A* 99,98%, nilai akurasi PT *Stream B* 99,99% ; nilai presisi PT *Stream B* 99,98%, nilai akurasi TT *Stream A* 99,99% ; nilai presisi TT *Stream A* 99,99%, nilai akurasi TT *Stream B* 99,99% ; nilai presisi TT *Stream B* 99,99%.

**Kata kunci** : *transmitter*, *error*, akurasi, presisi, kalibrasi.

## ABSTRACT

### **THE IMPLEMENTATION OF SYSTEM ACQUISITION AND PROCESSING DATA IN THE ASPECTS OF INSTRUMENT CALIBRATION METROLOGY FOR TRANSMITTER PT PERTAMINA EP CEPU FIELD ASSET 4 CENTRAL PROCESSING PLANT GUNDIH**

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*The background of this study because the regulation requires the transmitter to measure or calibrated periodically. The purpose of this study was to determine the error, the accuracy and precision of the instrument transmitters.*

*The method which is used in this research is to compare the result of the appointment on the transmitter with the result of the standard designation. Data is collected at the point of 0%, 25%, 50%, 75% and 100% of the maximum capacity of the transmitter.*

*Based on the research which has been done, the error values are obtained by appointment at the transmitter still exists on the borderline is safe from limits of allowable errors (BKD). The results obtained are the error value after performing the calibration transmitter are: average value of the error Stream A DPT of -0,01%, average value of the error Stream DPT B amounting to 0,03%, average value of the error Stream A PT of 0,04%, average value of error the PT Stream B 0,05%, average value of the error Stream A TT 0,05% the median value, the mean TT error Stream B 0,07%. The average value of accuracy and precision is obtained after performing the testing that is: the value of A Stream of DPT accuracy 100% and the value of A Stream of DPT precision of 99,99%, accuracy rating DPT Stream B of 100% precision value Stream B DPT of 99,99%, accuracy rating PT 99,99% of A Stream and value Stream PT A precision of 99,98%, value Stream PT B accuracy of 99,99%, precision value Stream PT B of 99,98%, the value of A Stream of TT accuracy 99,99%, precision value Stream of A TT 99,99%, accuracy rating TT B Stream of 99,99% and the value of B Stream of TT precision 99,99%.*

**Keywords :** transmitter, error, accuracy, precision, calibration.