

Strengthening Competency of Yogyakarta Vocational High School Teachers in Electrical System Analysis through ETAP Software Training

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ABSTRACT

Abstract. Vocational teachers in the electrical field must master the competence of electric power system analysis. However, many vocational school teachers have difficulties in the competency analysis of the electric power system, which is indicated by the competency test score of less than a minimum learning mastery value of 75. The change in learning methods from conventional during the Covid19 pandemic to online adds to the problems of teachers in mastering the competence of electric power system analysis. The primary purpose of this article is to improve the competence of teachers in electricity system analysis through ETAP training. The training method uses an andragogy learning approach that combines lectures, demonstrations, exercises, evaluations, and mentoring. The training material consists of the concept of an electric power system which includes components of the electric power system, modeling of the electric power system, analysis of the electric power system with ETAP software. The training is carried out online through the Zoom Meeting application. The learning approach uses andragogy by combining lectures, demonstrations, exercises, evaluations, and mentoring. Training materials consist of electric power system concepts, electric power system components, electric power system modeling, and electrical power system analysis using ETAP software. The training participants improved their ability in electric power system analysis as indicated by the increase in the average value from 62.5 to 76.6. They can complete case studios to create single-line diagrams and analyze power systems independently.

Kata Kunci: *Competency, Vocational Teachers, Analysis, Electrical System, ETAP*