

Numerical algorithm for the accurate evaluation of the induced voltages in a pipeline

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Abstract

In the paper are evaluated the induced potential in a pipeline based on the subdivision of the zone of influence AC Power Lines / pipeline in a relatively great number of sections in order to be able to determine voltages at many positions along the pipeline. Is presented a practical case of subdivision of the zone of influence in sections (a circuit model) and based on the experimental measured values of the induced voltages is calculated with special interpolation functions (Spline and Newton-algorithm) in MathCad the values of the induced voltages in different points on the influence zone.