

## SOFTWARE APPROACH TO ELECTRICAL DISCHARGE MACHINING MONITORING

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**Abstract:** Because the electrical discharge machining (EDM) has a small machining removal rate, the improving of EDM removal rate is the central problem of the researches regarding the EDM process. In this context, the process monitoring has a very important role. The proposed monitoring algorithm is based on multiple comparisons of the measured voltages versus three threshold levels that distinguish the discharge types. The analyze is done for a control cycle that is necessary to obtain true data in order to control the process parameters, such as the pulses characteristics and the feed motion speed and direction. Also the paper presents the so-called real-time control technique that should be used to implement the control tasks, as well as the described measuring algorithm and process data logging and presentation.

**Key words:** electrical discharge machining, monitoring, in-process measurement, data acquisition, algorithm.