



## ANALYSIS AND OPTIMIZATION OF MAINTENANCE OPERATIONS EMU "FLIRT 413"

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**Abstract** – *The task of the master's thesis is the analysis of maintenance operations, such as the time required for the realization of regular inspections and extraordinary repairs. Analysis and normalization of operations aims to increase productivity in the maintenance process, which enables insight into deviations in the time required to perform some operations. Also, one of the tasks is to examine and consider the possibility of optimizing the maintenance process for certain activities, which have significant deviations compared to the times prescribed by the manufacturer. The collection of necessary data for the subject analysis shall be carried out by surveying respondents, employees of the company "SrbijaVoz a.d." and by directly measuring the time required for the implementation of certain operations, as well as detailed information regarding repairs. By analysis the measured times, from current cases, available resources and personnel, it could be concluded that some of simpler operations can be done in a shorter time, while some complex ones require more time. Further research in this area and the application of new maintenance technologies should contribute to the optimization of the maintenance process and the reduction of maintenance costs, while maintaining the required level of reliability and availability.*

**Keywords** – *trams, maintenance, analyses, inspections.*

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