

STATISTICAL SOFTWARE FOR RAW WATER QUALITY ASSESMENT

M. Milivojevic¹, Dj. Forst¹, Dj. Moljkovic¹, M. Tomic¹

¹Technical and Business College, Uzice, Serbia,

{milovan.milivojevic, djordje.forst}@vpts.edu.rs, djmoljkovic@gmail.com, theincrediblestark@gmail.com

Abstract: *Based on the importance of drinking water in the 21st century and insight into leading edge trends in the domain of management of drinking water (number of scientific publications, statistical and software support), this paper presents AQUA Statistic software for statistical evaluation of raw water quality, which the authors of this paper developed themselves, using the C# 6.0 programming environment. Special emphasis is placed on software modules dealing with analysis of variance (One-way ANOVA, Two-way ANOVA). Modules of AQUA Statistic software are validated for the example of raw water electrical conductivity in the Case Study and on the dataset of raw water properties, collected in the district of Zlatibor in the southwest part of the Republic of Serbia. AQUA Statistic software has the ability to automate the Integrated, as well as the ability to incorporate numerous Artificial Intelligence and Data Mining algorithms based on open sources platforms, such as R and Python.*

Keywords: *Quality of Raw Water, ANOVA, Statistical software.*