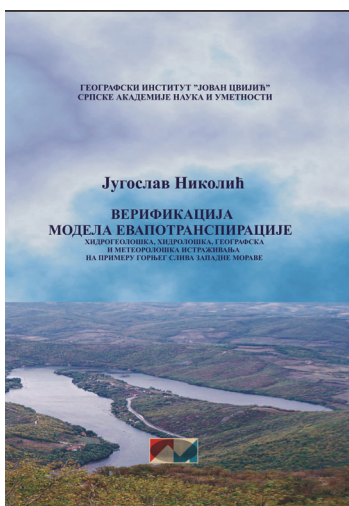


**Jugoslav Nikolić**  
**VERIFICATION OF THE EVAPOTRANSPIRATION MODEL –**  
**hydrogeological, hydrological, geographical and meteorological research on**  
**the example of Zapadna Morava river upper basin**  
Geographical Institute “Jovan Cvijic” SASA, special editions, vol. 78, 2010.



The monograph “Verification of the Evapotranspiration Model – hydrogeological, hydrological, geographical and meteorological research on the example of Zapadna Morava river upper basin” consists of 13 chapters presented in 303 pages in which the author, Dr Jugoslav Nikolic, gives a very important research with the goal of verification of the developed model through and the application in heterogeneous geo conditions of chosen terrain. The author supports textual display of the research with numerous tables, charts, original photographs, as well as specially designed large format maps (geological, hydrogeological and hydrological network terrain maps).

This monograph especially emphasizes the need for checks and adjustment of adequate model parameters through experimental testing on terrain. The application of the developed numerical model on a very heterogeneous terrain of the Zapadna Morava river upper basin is presented as well exploration of the impact of terrain factors on correction of water evaporation calculation.

In the calibration process of the developed numerical model, lysimetric station of the Republic Hydrometeorological Service of Serbia was used, as well as the meteorological station on the same location. The verification of the model was performed for heterogeneous geological conditions on the case example of the Zapadna Morava river upper basin. In order for this process to be performed it was necessary, through multidisciplinary approach, to conduct thorough examination of chosen terrains from different aspects: geographical, geological, geomorphological, hydrological, hydrogeological and meteorological. The evapotranspiration field was determined by the model application, more exactly by calculation in large number of network dots, which represent the elementary surfaces by which space is divided from model domain. Due to the lack of lysimetric measurements on terrain, the additional influences of geological foundations on correction of the integral water evaporation are solved in a specific way, through comparable determination of water evaporation by the water balance method,

along with complex hydrogeological terrain research and model-based precipitation determination. In this way the error of overflow of water from basin to basin is eliminated, precipitation is more precisely determined and the outcome is the maximum accuracy that can be obtained by the water balance method.

The research performed and presented in the monograph by the author Jugoslav Nikolic, with the goal of testing and practical application of the developed model for determination of evapotranspiration in natural environments, taking into account the effects of various hydrogeological conditions of the terrain, resulted in the successful tool for solving a number of concrete economic tasks.

*Mirčeta Vemić*