Miha Ulčar:

Model jezu s talnim izpustom

Povzetek

Cilj seminarske naloge je bilo osvojiti teoretično znanje s področja hidravličnega modeliranja, merilne tehnike in uporaba le tega na praktičnem primeru modela prelivnega jezu v merilu 1:25. S področja hidravličnega modeliranja so opisani: podobnostna mehanika, modelni zakoni in razlike med hidravličnimi in numeričnimi modeli. Podrobneje sta obdelana modela struge s pomičnim in nepomičnim dnom. Podane so tudi osnove teorije merilne tehnike in njihova uporaba v praksi. Predstavljene so vrste odjemnikov in principi njihovega delovanja. V zadnjem poglavju je opisan prelivni jez s prepustom, na katerem so bile opravljene meritve višine vode pred in za jezom, s pomočjo katerih sta bila določena koeficienta prepusta in preliva. Meritve oz. računi so potrdili pričakovane vrednosti teh dveh koeficientov.

Ključne besede:

Abstract

The aim of this assignement was to describe the theoretical background of hydraulic modelling, measurement tehnics and use of it on the practical case of decantating damm with the outlet with 1:25 scale. From the field of hydraulic modelling there are described: similarity mechanics, model laws, distinction from numerical models, river models with fixed bed and river models with movable bad.Measuremnt tehnics are also given in this assighment and their practical use. Introduction of different kinds of sensors in also described and principles of their operation.In the last chapter, decantating damm with outlet is described, and the measurements that were taken. The results of the measurements were hights of the water before and after the damm. The results were coificent of decantating damm and the coificent of outlet. Measurements and calculations confirmed theoreticall expectations.

Key words: hydraulic modelling, notion of hydraulic model, similarity mechanics, model laws, distinction from numerical models, classification of hydraulic modelling, measurement tehnich, pressure senzors, decantating damm with outlet.