

DOKTORSKÝ STUDIJNÍ PROGRAM

NÁVRH TÉMATU/PROPOSAL OF THEME

Studijní program/*Study Program*: **Special Agricultural Science**

Studijní obor/*Branch of Study*: **Exploitation and Protection of Natural Resources**

Katedra/*Department of*: **Water Resources**

Školitel (včetně titulů), email/*Supervisor, email*: Prof. Ing. Svatopluk Matula, CSc.

Konzultant (včetně titulů)/*Co-supervisor*:

Forma studia/*Form of Study*: **Full_time**

Typ tématu/*Type of Theme*: **Framework**

Téma/Theme:

The measurement of open channel flow in small water courses/ drainage channels and drainage flow using modern hydrometric methods

Hypotéza/Hypothesis:

The measurement of channel flow of drainage and other waters could be successfully done by flow meters based on electromagnetic principle. They do not have any rotating parts and can be also used for dirty waters consisting of soil particles and other dirt.

Anotace/Annotation:

In the case of small flow in drainage channels and/or drainage outflows is often necessary to work with dirty water, small range of fluctuating flow ($\pm 5 \text{ m} \cdot \text{s}^{-1}$) and with low level of water in the watercourse or drainage outflow (around 5 cm). In such conditions seems to be applicable to employ flow meters working on the electromagnetic principle. Their high sufficiency is an absence of any kind of rotating parts and the high resistivity against the dirt in the flowing water (for example soil solid particles as the result of erosion proces)

Zdroj financování/Source of: NAZV QK1910086

Datum/Date: 13.1.2020

Podpis/Signature: