

*Abstract*

# IoT (Internet of Things) Based Technology Help Regional Farmers Improve Their Agricultural Production and Effectiveness—Prototype from Technical University in Zvolen (Slovakia) †

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**Abstract:** In 2017, an interdisciplinary seminar “Drought in our Regions” was organized at the Technical University in Zvolen. The topic of the action was focused on problems with weather extremes and drought in agricultural sector. The seminar also included a survey of the real needs of the participating farmers and foresters, which could be translated into practice through practical-oriented development and research at the Technical University of Zvolen. We have identified two pilot projects. In this contribution, we would like to present the one that concerns agrometeorological support for agricultural production at Agro-Poniky company. The specificity of the Agro-Poniky farm is the diversity of landscape conditions (geomorphology) on the land they farm. Therefore, it often happens that weather conditions vary considerably across the farmed area. In such cases, inaccurate planning of agri-technical interventions in relation to the different weather patterns in the area could lead to economic losses in various forms (loss of time, reactive workload, unnecessary hours of operation, fuel, etc.). Because of this, a pilot project called AGROMET was launched by the Department of Natural Environment of the Technical University in Zvolen. The project is dedicated to on-line monitoring of weather conditions using IoT (Internet of Things) meteorological stations on farmed area.

**Keywords:** drought; agriculture; meteorological monitoring; internet of things



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