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Information Model for Evaluation and Selection of Instructor Pilots for Smart City Urban Air Mobility

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Abstract

Abstract:

The relevance of the work lies in the development of an information model for the evaluation and selection of instructor pilots for Smart City Urban Air Mobility (UAM), which are best suited for professional, psychophysiological and pedagogical qualities for effective training of future pilots. As a result, pilots' competency input models for Smart City UAM have been proposed for the first time: a model for evaluating the mindset and decision making of a pilot in Smart City; model of knowledge of pilot theory knowledge in Smart City; a model for assessing flight training knowledge and flight competence for Smart City UAM; model of knowledge assessment in theory of pedagogy, psychology and communicative competence. Competence models can use a different number of rating indicators and different scale scores. A six-step general algorithm for evaluating and selecting instructor pilots for Smart City UAM has been developed for the first time, integrating different pilot competency models and taking into account the "desired values" of the decision-maker. Experimentally developed 7-pilot algorithm for pilot instructor selection for further training for Smart City UAM.

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I. Introduction

Traffic congestion and congestion caused by rapid urbanization complicate urban traffic. Efforts are now underway to introduce a third (vertical) dimension for moving goods and people in urban settings. It is highly hoped that drones are a major part of the so-called Smart City initiatives, which are focused on maximizing efficiency and protecting the environment. Unmanned aerial vehicles (UAVs) are efficient and sustainable urban transport systems. The creation of powerful platforms and software for air traffic management in Smart City. But in addition to drones, Smart City will operate a large number of small personal or municipal aircraft that require the specific skills of pilots. In this case, there will be a need for a large number of pilot

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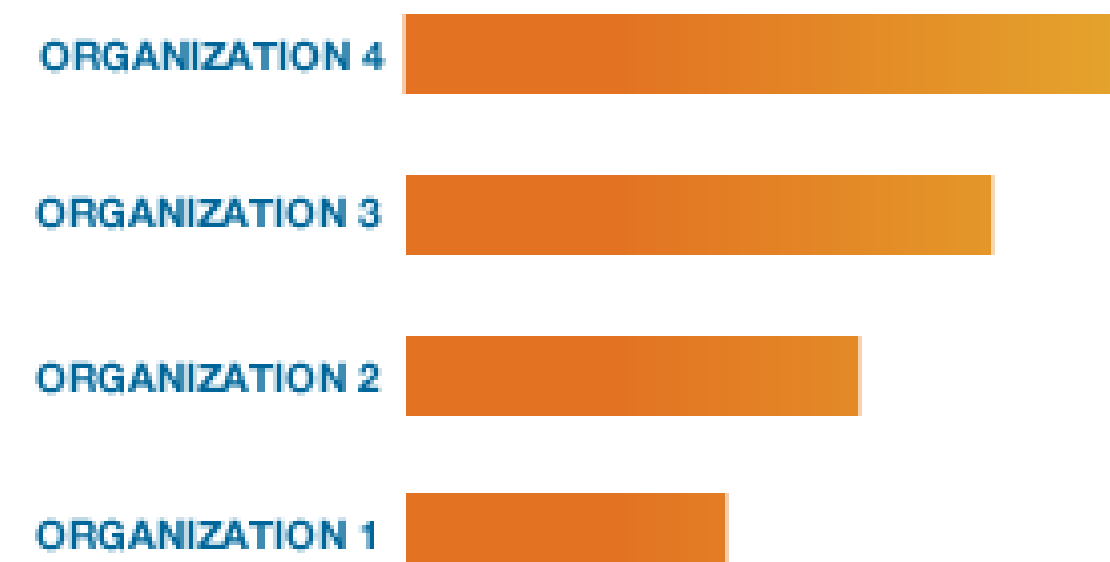
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