

СЪДЪРЖАНИЕ

ИНФОРМАТИКА

П. Благов, П. Русков. Изграждане и развитие на Европейската инфраструктура за блокчейн услуги EBSI и на EBSI продукционни възли5

Key Words: EBSI; Node Expansion.

Abstract. The article examines the current state and the EC project for building EBSI (European Blockchain Services Infrastructure) production nodes. The main characteristics and architecture of the EBSI platform are presented. The EBSI – NE – Node Expansion project involving the authors to maintain and develop the nodes is described. The EBSI – NE – Node Expansion, Deployment of EBSI production nodes, and provision of support services to the EBSI network at the European level project will further develop the blockchain nodes in the EU and help build capacity for using the technology. The objective of the EBSI-NE consortium is to support the development and adoption of the EBSI network at the European level by increasing the number of validator nodes in the production network and the provision of support services for all relevant EBSI stakeholders. These actions will increase the robustness and maturity of the production network of EBSI, enabling the development of the prioritized EBSI cross-border use cases. The consortium is made of 24 organizations from 14 European countries including government agencies, public institutions, and academia which have extensive experience related to Distributed Ledger Technologies and past EBSI ecosystem initiatives, including the deployment of pre-production nodes. It is within the program DIGITAL-2022-DEPLOY-02, Project ID: 101102570. The tasks and expected results of the project are also presented.

ИНТЕЛИГЕНТНИ СИСТЕМИ

Р. Хрисчев, Н. Шакев. Вградени AI приложения в интелигентните облачни ERP системи12

Key Words: ERP system; SAP Business Technology Platform; Cloud Oracle Infrastructure; AI services.

Abstract. SAP Business Technology Platform (BTP) and Cloud Oracle Infrastructure (OCI) are the pioneers of the modern cloud intelligent ERP systems. This article presents investigation of the embedded services with Artificial Intelligence (AI) in both ERP systems. The main functionalities with built-in AI are presented.

Е. Монова. Предсказване на поведението на хаотична система чрез невронна мрежа в MATLAB17

Key Words: Chaotic system; neural network.

Abstract. In the paper is proposed an approach for predicting the behavior of a chaotic system through a neural network trained in MATLAB. Variants of neural networks with one hidden layer and different number of neurons are also presented.

ЕКОЛОГИЧНИ СИСТЕМИ

Л. Джусуфи (ЛД), С. Джафа (СДЖ). Технологии за интелигентна водна инфраструктура за внедряване на проект за интелигентен град в Прищина22

Key Words: Smart City; Smart Water System (SWS); Smart Water Infrastructure Technologies (SWIT); GIS; DMA; NRW.

Abstract. Over the next decade, urban populations and the need for clean water will continue to grow. Cities

are forced to find intelligent solutions for the rational use of clean water using Smart Water Infrastructure Technologies (SWIT). The Smart Water System is an important component, along with other components, with the particular importance to complete the implementation of the Smart City concept. Most of the Smart City projects have a relatively short history and often the level of their impact is not clear. Cities are getting smarter every day, using information and communication technologies to enrich and enhance city life. Some cities in the Western Balkans have started implementing Smart City, some are in the feasibility study phase and some are in the planning phase of starting implementation. Before implementing a Smart City project, it is necessary to understand not only the potential impact of the project but also the priorities and the specific problems that are trying to be solved. For this reason, this paper will provide information about the level of Smart Water Infrastructure Technologies that are installed in Pristina Water Company to implement a Smart City Project in Pristina. The objective of this paper is to present an assessment of the current situation in the application of Smart Water Infrastructure Technologies in the Pristina Region and to provide a summary of potential key recommendations for the integration of such technologies the Smart Water System control for Smart Cities.

3. Радева. Анализ на данни за растителни видове при изграждане на онтология за интелигентна система за българска дива, културна и защитена флора27

Key Words: Development of Ontology; Semantic WEB; WEB Protégé; Plant Ontology; Bulgarian flora; Biodiversity; Botany; Flora-oriented plant ontology.

Abstract. On the territory of the Republic of Bulgaria there are many plants, which are known as Bulgarian flora. The diverse vascular plants in Bulgaria with estimated enormous number of no less than 3700 species. Bulgarian flora including a wide variety of plant species and their natural habitats. The existing information about them is collected in various sources with a rather heterogeneous structure for representing information about terms or specific terminology. In order to facilitate the integration and analysis of the information contained in the various sources describing the plant flora in our country, in this paper we presents our methodology for describing, gathering and development of a model of ontology, useful for context of semantic web technologies. The ontology in specific domain area, as is in area of different types of species in Bulgarian flora give us opportunity to represent plant species through building an intelligent system for Bulgarian wild, cultivated and protected flora. The work presents the analysis of plant species data in development of an ontology for an intelligent system for Bulgarian wild, cultivated and protected flora. Domain ontologies express conceptualization that is specific for particular area and presented by greatly useful in knowledge acquisition, sharing and analysis, especially on the web discover knowledge for plant across all disciplines of botany. A mixed method was applied in organizing of the specification of conceptualizations on flora of Bulgaria using the domain analytic approach in order for developing an ontology. The model of ontology has been constructed by using ontology editor in open-source software Protégé. In this paper, we propose a prototype of model of ontology and describe the research methods including domain analysis for knowledge organization and ontology development, as results of classification of Bulgarian flora based on specialized literature and encyclopedia of plants in Bulgaria, floral characteristics and area of their distribution which are divided into different concepts of plant information. There are included block diagrams for the stages involved in the construction of an ontology for an intelligent system for Bulgarian flora are presented some conceptual terms of botany aspects of the Bulgarian plant species. The paper presents the first results of data analysis of building an intelligent system by ontology for wild, cultivated and protected flora.

НОВОСТИ, ИНФОРМАЦИЯ, ОБЩЕСТВО

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