Science Fund of the Republic of Serbia Program for Development of Projects in the field of Artificial Intelligence

Dr. Radiša Jovanović



Personal data

Address:

University of Belgrade Faculty of Mechanical Engineering, Kraljice Marije 16, 11120 Belgrade 35, Serbia

Phone:

+381 63 734 46 61 +381 11 337 02 42

E-mail: rjovanovic@mas.bg.ac.rs

Nationality: Serbian

Date of birth: May 8th, 1969

Research or academic title

Full Professor

Research field/area

Mechanical engineering / Control systems, nonlinear control systems, tracking control algorithms, machine learning, fuzzy logic and control, neural networks and artificial intelligence, intelligent control systems, optimization algorithms, metaheuristics.

Languages

Serbian, English, Russian

Number of citations (excluded self-citations)

Education

- 2002 Doctor of technical science (PhD-Mech.Eng.) University of Belgrade - Faculty of Mechanical Engineering, Department of Automatic Control Dissertation title: Synthesis of fuzzy tracking control algorithms of electrohydraulic servosystems
 1996 Magister Scientiae – MSc-Mech.Eng. (four
- Magister Scientiae MSc-Mech.Eng. (four semesters & thesis-research prerequisite to PhD)
 University of Belgrade Faculty of Mechanical

Engineering, Department of Automatic Control

1990Dipl.-Ing. (ten semesters with diploma work)University of Belgrade - Faculty of MechanicalEngineering,Department of Automatic Control

Employment

- 1999 Full Professor (since 2021)
- PresentUniversity of Belgrade Faculty of Mechanical
Engineering,
Department of Automatic Control
Laboratory for Intelligent Control Systems

Publications (selected)

- Sretenović, A., Jovanović, R., Novaković, M. V., Nord, M. N., Živković, D. B.,
 Support vector machine for the prediction of heating energy use, Thermal Science, 22 (4) (2018), pp. 1171-1181, DOI:10.2298/TSCI170526126S, (Science Citation Index-Web of Science[®] - IF = 1.431 (2017); source KoBSON)
 Jovanovic, R., Božić, I.,
- Feedforward neural network and ANFIS-based approaches to forecasting the off-cam energy characteristics of Kaplan turbine, Neural Computing and Applications, 30 (8) (2018), pp. 2569-2579, ISSN 0941-0643,

DOI:10.1007/s00521-017-2843-9, (Science Citation Index-Web of Science[®] – IF = 4.213 (2017); source KoBSON)

255

Hirsch index

6

Certificates

- License of certified (responsible) designer for thermal engineering, thermal power engineering, process and gas engineering 330 E622 07.
- License of certified (responsible) contracting engineer for thermal energy, thermodynamics, process and gas engineering 430 B243 07.

Other information

- Jovanović, R., Matlab and Simulink in Automatic Control (university textbook in Serbian), Faculty of Mechanical Engineering, University of Belgrade, Serbia, 2016;
- Excellent knowledge of C, C++, Python, Octave, MATLAB & Simulink, LaTeX, LabView, Mathematica, Simatic Step7, ETS, MS Office (Word, Excel, Power Point).

- Jovanović, R., Sretenović, A., Živković, B., Multistage ensemble of feedforward neural networks for prediction of heating energy consumption, Thermal Science, 20 (4) (2016), pp. 1321-1331, ISSN 0354-9836, DOI:10.2298/TSCI150122140J, (Science Citation Index-Web of Science[®] – IF = 1.093 (2016); source KoBSON)
- Jovanovic, R., Sretenovic, A.,
 Various multistage ensembles for prediction of heating energy consumption, Modeling Identification and Control, 36 (2) (2015), pp. 119-132, ISSN 1890-1328, DOI:10.4173/mic.2015.2.4,
 (Science Citation Index-Web of Science[®] IF = 0.250 (2015); source KoBSON)
- 5. Jovanović, R., Sretenović, A., Živković, B., Ensemble of various neural networks for prediction of heating energy consumption, Energy and Buildings, 94 (2015), pp. 189-199, ISSN 0378-7788, DOI:10.1016/j.enbuild.2015.02.052, (Science Citation Index-Web of Science[®] – IF = 2.973 (2015); source KoBSON).

Projects and activities (selected)

- 2018 Božić, I., Petković, A., Jovanović, R., Ilić, J., Intra-station regimes optimization of Vlasinske hydropower plants-optimization and development software system using artificial intelligence methods, Report Nr.11-01-05/2018, University of Belgrade - Faculty of Mechanical Engineering, Hidromaskonsalting, Belgrade
- **2018-** Babić, B., Miljković, Z., Jovanović, R., et al.
 - 2019 An Innovative, Ecologically Based Approach to the Implementation of Intelligent Manufacturing Systems for the Production of Sheet Metal Parts,

Grant: TR-35004,

Project funded by Ministry of Education, Science and Technological Development of the Government of the Republic of Serbia 2015 <u>Jovanović, R.,</u> Sretenović A., Živković, B., *Ensemble of various neural networks for prediction of heating energy consumption*, Technical Report, University of Belgrade -Faculty of Mechanical Engineering, Kraljice Marije 16, 11120 Belgrade, Serbia

- 2013 <u>Jovanović, R.</u>, Ribar, Z., Nauparac, D., *Computer control system of shaking table: control algorithm, softwer system and realization*, Technical Report, University of Belgrade - Faculty of Mechanical Engineering, Kraljice Marije 16, 11120 Belgrade, Serbia
- 2010 Savić, B., Jovanović, R., Ribar, Z., Softwer system 'DIORES'' for diagnosis of the operation, economy and operational state of steam power plants, Technical Report, University of Belgrade - Faculty of Mechanical Engineering, Kraljice Marije 16, 11120 Belgrade, Serbia

Products, services (datasets, software)

- 1. Božić, I., Petković, A., <u>Jovanović, R.</u>, Ilić, J., **Software system for optimization of intra-station regimes of the Vlasinske hydropower plants based on artificial intelligence methods** (*software* with citation in technical report Nr.11-01-05/2018, University of Belgrade - Faculty of Mechanical Engineering, and Hidromaskonsalting, Belgrade, 2018.
- Jovanović, R., Ribar, Z., Nauparac, D., Computer control system of shaking table (*software* with citation in technical report No.825/3, 18.04.2013., University of Belgrade - Faculty of Mechanical Engineering, Belgrade, Serbia, 2013.)
- Savić, B., Jovanović, R., Ribar, Z., DIORES softwer system for diagnosis of the operation, economy and operational state of steam power plants (software with citation in projects EE107-150A and 200105 - Ministry of Science and Technological Development - Government of the Republic of Serbia)