

## Dr. Nikola Slavković



### Personal data

#### Address:

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

#### Phone:

+381 64 2327623

#### E-mail:

[nslavkovic@mas.bg.ac.rs](mailto:nslavkovic@mas.bg.ac.rs)

#### Nationality:

Serbian

#### Date of birth:

December 19<sup>th</sup>, 1981

### Research or academic title

Associate Professor

### Research field/area

**Mechanical engineering** /  
Industrial robots, Parallel  
kinematic machine tools and  
robots, Reconfigurable robotic  
systems, Virtual robots, Open  
architecture control system,  
STEP-NC.

### Languages

Serbian, English

### Education

- 2015** | **Doctor of technical science (PhD-Mech. Eng.)**  
University of Belgrade - Faculty of Mechanical  
Engineering,  
Department of Production Engineering  
Dissertation title: Identification, modelling and  
compensation of errors due to machining robot  
static compliance
- 2007** | **Dipl.-Ing. (ten semesters with diploma work)**  
University of Belgrade - Faculty of Mechanical  
Engineering,  
Department of Production Engineering

### Employment

- 2009 – Present** | **Associate Professor (since December 2020)**  
University of Belgrade - Faculty of Mechanical  
Engineering,  
Department of Production Engineering  
Laboratory for Industrial Robotics and  
Artificial Intelligence (ROBOTICS & AI)

### Awards and prizes

- 2011 - Annual award of the Belgrade Chamber of Commerce for technical improvement Reconfigurable robot-based machining system for multi-axis machining of larger parts with complex esthetic and functional surfaces made of softer materials of medium and lower accuracy class, achieved in 2009/2010 year;
- 2011 - Award at the competition for the Best Technological Innovation in Serbia in 2011 for winning the fourth place in the general classification in the category of realized innovations;

### Publications (selected)

1. **Slavkovic, N.**, Zivanovic, S., Kokotovic, B., Dimic, Z., Milutinovic, M.: *Simulation of compensated tool path through virtual robot machining model*, Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol 42, 374, 2020, DOI: 10.1007/s40430-020-02461-9 (IF 2019: 1.755).
2. **Slavkovic, N.**, Zivanovic, S., Milutinovic, D.: *An indirect method of industrial robot programming for machining tasks based on STEP-NC*, International Journal of Computer Integrated

**Number of citations  
(excluded self-citations)**

**215**

**Hirsch index**

**8**

**Certificates**

/

**Other information**

- Slavković, N., Dimić, Z.:  
Development of a reconfigurable  
machining system based on robot,  
UB - FME, 2020 (scientific  
monograph in Serbian).

**Products, services  
(datasets, software,  
technical solutions)**

1. **Slavkovic, N.**, Milutinovic, D.,  
Zivanovic, S., Kokotovic, B.,  
Milutinovic, M.: *Method of  
compensation of errors caused  
by cutting forces during  
machining by robots*, UB - FME,  
2016.
2. Milutinovic D., **Slavkovic, N.**,  
Kokotovic B., Dimic Z.,  
Glavonjic M., Milutinović M.,  
Živanović S.: *Parallel DELTA  
robot for product packaging  
confectionery and  
pharmaceutical industries and  
assembly of micro components*,  
UB - FME, Belgrade, 2012.
3. Milutinovic, D., Glavonjic, M.,  
**Slavkovic, N.**, Dimic, Z.,  
Kokotovic, B., Živanović, S.:  
*Reconfigurable machining  
system based on multi-axis  
robots for larger parts with  
complex esthetic and functional  
surfaces of softer materials of  
middle and lower accuracy class*,  
UB - FME, Belgrade, 2009.

Manufacturing, ISSN: 0951-192X (Print) 1362-3052  
(Online), Vol 32, No 1, 2019, pp.43-57, DOI:  
10.1080/0951192X.2018.1543952 (IF 2019: 2.861).

3. Zivanovic, S., **Slavkovic, N.**, Milutinovic, D.: *An  
approach for applying STEP-NC in robot  
machining*, Robotics and Computer-Integrated  
Manufacturing, Vol 49, 2018, pp. 361-373, DOI:  
10.1016/j.rcim.2017.08.009 (IF 2018: 4.392).
4. **Slavkovic N.**, Milutinovic D., Glavonjic M.: *A  
method for off-line compensation of cutting force-  
induced errors in robotic machining by tool path  
modification*, International Journal of Advanced  
Manufacturing Technology, Vol.70, No.9-12, 2014,  
pp. 2083-2096, ISSN 0268-3768, doi:  
10.1007/s00170-013-5421-z (IF 2014: 1.458).
5. Milutinovic, D., Glavonjic, M, **Slavkovic, N.**,  
Dimic, Z., Zivanovic, S., Kokotovic, B., Tanovic,  
Lj.: *Reconfigurable robotic machining system  
controlled and programmed in a machine tool  
manner*, International Journal of Advanced  
Manufacturing Technology, Vol 53, No 9-12, 2011,  
pp. 1217-1229, DOI: 10.1007/s00170-010-2888-8  
(IF 2011: 1.103).

**Projects and activities (selected)**

- |                           |  |
|---------------------------|--|
| <b>2008 –<br/>2010</b>    | <i>Development of multi-axis machining<br/>technology of complex tools for the needs<br/>of the domestic industry</i> , University of<br>Belgrade, Faculty of Mechanical<br>Engineering, Ministry of Education, Science<br>and Technological Development of<br>Republic of Serbia, Technological<br>development program TR14034.   |
| <b>2011 –<br/>Present</b> | <i>Development of a new generation of<br/>domestic machining systems TR35022</i><br>(2011 - 2019), <i>Integrated research in the<br/>field of macro, micro and nano mechanical<br/>engineering</i> 451-03-68/2020-14/200105<br>(2020 -), University of Belgrade, Faculty of<br>Mechanical Engineering, Ministry of<br>Education, Science and Technological<br>Development of Republic of Serbia. |