

PERSONAL INFORMATION

Zoran Gacovski, PhD



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Sex M | Date of birth 21/05/1971 | Nationality Macedonian

JOB

Professor in Technical Sciences, Mother Theresa University, Skopje

PERSONAL STATEMENT

Reliable, well-motivated, trusted lecturer in Automation / Mechatronics / Computer engineering, with broad knowledge and experience in different IT disciplines.

WORK EXPERIENCE

Replace with dates (from - to)

01/2020 - to date: Professor in Automation / Mechatronics – Mother Theresa University - Skopje

**Duties:** Courses taught / research conducted:

- MEMS Systems
- Software engineering
- Human-computer interaction
- Decision-making Theory

06/2014 – 12/2019: Professor in Information technology / Computer science - European University - Skopje

**Duties:** Courses taught / research conducted:

- IT Project management
- Software engineering
- IT system security
- Algorithms and data structures

08/2003 – 06/2014: Professor in Information technology / Computer science - FON University - Skopje

**Duties:** Courses taught / research conducted:

- Object-oriented Programming
- Software engineering
- IT system security

08/2002-07/2003: Research associate at the Center for Advanced Information Processing (CAIP) - Rutgers University, USA (user-experienced design).

(UX design, Human-computer interaction, Software engineering);

DISCIPLINE project: Human-computer Interaction based on speech and gaze (for Rutgers University, USA, 2002-2003) - sponsored by US Army and Ford. The system was developed in Java. IBM Via Voice software was used as a speech recognizer, and ISCAN as a gaze tracker. Analysis of the user intention based of a large number of experiments and subjects – performed in MATLAB and statistical tool SPSS

EDUCATION AND TRAINING

Replace with dates (from - to)

**1997-2002, PhD in Technical Sciences**  
 University St. Cyril and Methodius, Skopje, Faculty of Elec. and Computer Engineering  
**1995-1997, MSc in Computer and Control Engineering**  
 University St. Cyril and Methodius, Skopje, Faculty of Elec. and Computer Engineering  
**1990-1995, BSc in Computer and Control Engineering**  
 University St. Cyril and Methodius, Skopje, Faculty of Elec. and Computer Engineering  
 GPA 9.50/ 10 (Top 5% in class)

PERSONAL SKILLS

Mother tongue(s) Macedonian, Serbian, Bulgarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C2
Replace with name of language certificate. Enter level if known.					
French	B1	B1	B1	B1	B1
Replace with name of language certificate. Enter level if known.					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills

- Excellent verbal and written communication skills. Able to conduct lecturing in different subjects clearly and concisely, using effective presentations.

Organisational / managerial skills

- Dean of Faculty of Informatics, European University, Skopje, 2015-2016.
- Leader of a project team (responsible for a team of 8 people, 2003-2013, FON, Skopje).

Job-related skills

- Teaching and Lecturing in different Automation/ Software engineering subjects.
- Algorithms, Matlab, IT Project management/ MS Project/ Java/ .NET.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Proficient	Proficient	Proficient

Levels: Basic user - Independent user - Proficient user

Replace with name of ICT-certificate(s)

- Strong experience (methods/ tools): Matlab, BPMN, MS Visio, MS Office.
- Software coding: C/C++, Java, .NET, HTML + mathematical skills.
- Platforms: Windows Sever, UNIX / Linux, SOA & Cloud environment.
- Software Project management methods/tools: Agile/ Scrum, RUP, MS Project, Jira.
- Database understanding: MySQL, SQL Server, MS Access.

Driving licence

B category

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**PROJECT PARTICIPATION**

- **ERASMUS+ KA203 CIRCECO** - Online Master Study Program for Circular Economy (2018-2020), for European University - Skopje, sponsored by European Commission Erasmus+ program for Innovation cooperation initiatives and common Best practices. Five partners involved from 4 EU countries.
- **Autonomous Self-driving Vehicles** – Volvo Group, Sweden, Poland, (2017); applying automation (intelligence) to enhance the traffic safety, to improve working conditions, and lower environmental impact. On-board sensors have been embedded to monitor the vehicle's surroundings and stop the truck if an obstacle appears. Software tools (Kalman filter) were applied for the self-driving algorithm.
- **COST Action IC0904: Towards the Integration of Transectorial IT Design and Evaluation, TwinTide project** (2010-2013), sponsored by European Commission. The goal is to harmonize research and practice on modern design and evaluation methodologies across disciplines. Design and evaluation in each of these areas demands different suites of interdisciplinary expertise and methodologies, given their specific underpinning disciplines, assumptions, goals, and values.
- **wearIT@Work** (for University of Bremen, 05/2008-08/2008) - sponsored by Airbus, DAAD, and European Commission; conducted by Prof. Dr. M. Lawo (TZI – Bremen); - Sets the stage for the applicability of wearable computer in various industrial environments. Computer systems support their users or groups of users in an unobtrusive way, allowing them to perform their primary task. My task was to perform user study about usability of 2 different input devices under several different conditions.
- **DISCIPLE - Multimodal Human-computer Interaction System with modelling of the Users behaviour** (for Rutgers University, USA, 10/2002-06/2003) - sponsored by US Army and Ford, conducted by Prof. Ivan Marsic, CAIP Center, Rutgers University, USA.
- **Development and implementation of algorithms for guidance, navigation and control of moving (flying) objects/vehicles**” (for Military Academy – Skopje, 09/1998-09/2002) – a mathematical modeling is performed for missile systems using Matlab/ Simulink platform; different simulations were realized, like synthesis of mixed guidance strategy sets against different subset targets strategies, an object-oriented simulation model of an adaptive guidance and control system for IR homing anti-tank missile etc.

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**HONORS AND AWARDS**

- Fulbright fellowship holder (awarded by U.S. Government - 2002).
- IEEE member: 1996-2022 (Including Computer Society).
- DAAD grant from German Government for 6-months research stay at Technical University of Berlin (2013);
- USA NSF Award for research at Rutgers University, Piscataway – 2003.
- **Best paper award** at International Olympiad BOAC, St. Petresburg, 2002.
- Best paper award at MILCON Conference, 2019, Skopje
- Books published on Amazon: [https://www.amazon.com/Books-Zoran-Gacovski/s?rh=n%3A283155%2Cp\\_27%3AZoran+Gacovski](https://www.amazon.com/Books-Zoran-Gacovski/s?rh=n%3A283155%2Cp_27%3AZoran+Gacovski)
- ResearchGate profile: <https://www.researchgate.net/profile/Zoran-Gacovski>

## PAPERS PUBLISHED

Over 50 papers published in Journals / Conferences. Selected 15 papers:

- [1] Gacovski Z., E. Kamceva, "Adaptive E-learning System based on Recommendations, implemented by Petri nets", Proc. of TSD 2021 – 5-th International Conference Towards Sustainable Development, Skopje (MK), 2021.
- [2] Gacovski Z., A. Sefidanoski, S. Jakimovski, (2019), "ICT applied as assistive technology for impaired people", in Proc. of IX Idea Conference, European University, Skopje, (MK) 2019.
- [3] Gacovski Z., Gjorgjiev I., (2019), "Project Assignment Problem Solved by Neuro-Fuzzy Inference System", In Proc. of ICAISC - 7-th International Conference on Artificial Intelligence and Soft Computing, New York (USA).
- [4] Kamceva E., Z. Gacovski, A. Sefidanoski, (2019), **Best paper award**. "E-learning System based on Recommendations, implemented in Matlab", In Proc. of MILCON - International Military Scientific Conference, Skopje (MK), 2019.
- [5] Gacovski Z., S. Jakimovski, (2018), "An Architecture for Fusion of Multi-Modal Sensory Inputs", In Proc. of IDEA, 8-th International Conference at EURM, pp.12-16, Skopje (MK), 2018.
- [6] Gacovski Z., V. Antoska, S. Deskovski, (2018), "Guidance and Control System for Platoon of Autonomous Mobile Robots", *Journal of Electrical Engineering*, USA, vol. 6, No. 5, pp.281-289, ISSN 2328-2223, 2018.
- [7] Antoska V.K, Z. Gacovski, S. Deskovski, (2017), "Obstacle Avoidance Algorithm for Mobile robots, using the Potential field method", *Horizon Research Journal on Control and Automation*, vol. 5, No. 4, 2017.
- [8] Deskovski S., V. Sazdovski, Z. Gacovski, (2016), "Guidance Laws and Navigation Systems for Quadrotor UAV: Theoretical and Practical Findings", *Springer - Studies in Systems, Decision and Control*, vol. 55, pp.395-407, May, 2016.
- [9] Gacovski Z., S. Deskovski, S. Arsenovski (2014), "Classical and Fuzzy Control Method for a Platoon of Smart Cars", *ARPJ Journal of Systems and Software*, vol. 4, No. 1, pp.12-19, January 2014.
- [10] Gacovski Z., S. Deskovski, (2014), "Different Control Algorithms for a Platoon of Autonomous Vehicles", *Intern. Journal on Robotics and Automation (IJRA)*, vol. 3, No. 3, pp. 5-12, September, 2014.
- [11] Deskovski S., Z. Gacovski (2013), "Modelling and Control Algorithm for Platoon of Intelligent Vehicles", In Proc. of 11-th International Conference ETAI, Ohrid (MK), pp. 174-179.
- [12] Siljanovski F., S. Arsenovski, Z. Gacovski (2013), "Evaluation of E-services at the Local Government Level (City of Skopje)", In Proc. of 11-th International Conference ETAI, Ohrid (MK), pp. 207-212.
- [13] Gacovski Z. (2013), "Authentication Methods: Current trends", In. Proc. of NATO Summer School on Cyber Defense, Ohrid (MK), pp. 89-100.
- [14] Gacovski Z., S. Deskovski and K. Veljanovska (2012), "Fuzzy Traffic Controller for Urban Intersection developed in Simulink/SimEvents", In Proc. of 13-th IFAC Symposium on Control in Transportation Systems CTS '12, Sofia (BG), vol. 13, pp. 122-125.
- [15] Veljanovska K., Z. Gacovski and S. Deskovski (2012), "Intelligent System for Freeway Ramp Metering Control", In Proc. of IEEE Conference on Intelligent Systems IS '12, Sofia (BG), pp. 279-282.