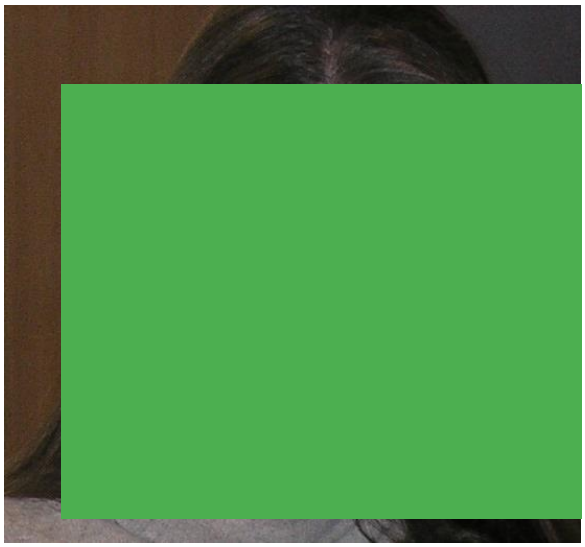

IVANA ATANASOVSKA

Dr. Ivana (Dragan) Atanasovska was born on [redacted], where finished Primary and Secondary schools. She graduated and received the M.Sc. and D.Sc. degrees at the Faculty of Mechanical Engineering on University of Kragujevac, where she had a position of Graduate Research Assistant in the scientific research projects and teaching (1995 - 1997). From December 1997. to 2005. she worked at different professional positions in mechanical engineering and through different practical tasks developed the competence for carrier of scientist and researcher who successfully connected the research tasks and practical implementation. She is appointed in 2005. for Assistant Professor in Department for information technologies in Faculty of Management in industry, Krusevac. From 2006 to 2015 she worked at the position of Assistant Research Professor in Institute for material testing, Belgrade (2006 - 2008), Institute "Kirilo Savic", Belgrade. (2008 - 2014) and Innovation center of Faculty of Mechanical engineering, University of Belgrade. She received scientific title Associate Research Professor in December 2014, and Full Research Professor in August, 2021.

From May, 2016. Dr. Ivana Atanasovska is under affiliation of the Mathematical Institute of the Serbian Academy of Sciences and Arts, at the moment as Full Research Professor. She is a member of Serbian Society of Mechanics, *UTAM*-a (International Union of Theoretical and Applied Mechanics) and Society for Structural Integrity and Life, Belgrade. Starting in 2007. Dr. Atanasovska is permanent member in Commission for machine safety (President from 2017) and Commission for technical drawing in Institute for standardization in Republic of Serbia. She was elected a corresponding member of the Serbian Academy of Nonlinear Sciences on March 3 2021.

She is married and has two sons, Aleksandar and Nenad.

Research Interests: Dr. Ivana Atanasovska's basic research interests belong to technical-technological sciences - the scientific area of Mechanical Engineering, and are focused on the research of nonlinear phenomena and application of mathematical numerical methods. She is particularly dedicated to the problems in contact mechanics and coupled nonlinear problems in real mechanical elements and systems. During last few years the main focus of her research is on the nonlinear dynamics of complex mechanical systems with multi-contact problems.

Scientific Results: Up to the end of 2020 she published more than 135 peer reviewed research publications as author or co-author, including a national monograph publication, 26 papers in international scientific journals, and 14 papers in national scientific journals. She authored or co-authored 3 technological innovations, as well as one patent on registered at a national level.

In the field of nonlinear sciences, she has given major scientific contributions in the research of coupled nonlinear phenomena (contact, large deformations, dynamics) and other nonlinearities (geometry and materials) in real complex mechanical systems. Her results in this area related to various elements of power transmissions (gears, rolling bearings, shafts), as well as the results in modeling contact stresses in other mechanical systems (kinetic energy absorbers of railway vehicles, dental implants, etc.) are particularly significant. In recent years, significant contributions have been made to the study of the nonlinear dynamics of complex mechanical systems operating in multiple contact conditions, which has led to the publication of a series of results in international journals and at international conferences in this field.

Response to Research Results: The Atanasovska's published results have important number of citations, counted based on different relevant scientific services:182 citations in Web of Science, 232 in Scopus and 570 in Google Scholar, with an h-factor of 15. She held few invited lectures on the international conferences, as well as a large number of lectures on the Seminars and Colloquium at the Mathematical Institute SANU. She is the reviewer in leading international journal in the area of machine elements and mechanisms *Scientific Journal Mechanism and Machine Theory* during the years, and from 2017. Received a status of a Reviewer with outstanding contribution. She is an active reviewer of more than 15 international journals, including: International Journal of Non-linear Mechanics, Engineering Failure Analysis, Proceedings of the Institution of Mechanical Engineering. Part J: Journal of Engineering Tribology, Journal of the Brazilian Society of Mechanical Engineering etc.

Educational activities: Dr. Ivana Atanasovska has participated in teaching of few different courses in undergraduate studies during she's working at the positions of Graduate Research Assistant at the Faculty of Mechanical Engineering in Kragujevac and Assistant Professor at the Faculty of Industrial Management, Kruševac. Later, she has been dedicated to working with talented researchers and PhD students. She was a co-mentor on four doctoral dissertations, two defended in Serbia and two abroad.

Organizational: Dr. Ivana Atanasovska is the chair of the permanent seminar "Mechanics of machines and mechanisms - models and mathematical methods" in MISAN since December, 2019, after she has been the co-chair since the Seminar was founding in June 2018. During her professional career, she was elected at the position of Assistant Director for Scientific Research at the Kirilo Savić Institute, and held positions of authorized persons in the Control and Certification Bodies of Scientific Research Institutes. She has participated in the organization of a number of international and national conferences. Since 2019 Dr. Atanasovska has been a reviewer of the international EU projects "Marie Skłodowska-Curie Individual Fellowships" (MSCA-IF). Since March 2019, he has held the position of Associate Editor in the international peer-review journal "Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science" (M23), SAGE, UK.

In addition to participating in a number of national scientific research projects, including innovation and technological development projects, as well as scientific research projects, she also has participated as a researcher in international projects: "Market introduction of a self-propelled bulk carriage" (SELF PROP RAIL), 2013-2014. (FP7), "Frictional Contact Analysis of Helical Gears", University of Technology PETRONAS, Malaysia, 2013–2014. She is currently an MC Member within the COST action "Optimizing Design for Inspection" (ODIN) - Action CA18203 (2019-2023). She is also a member of the Council for Responsible Research and Innovation, established in MI SANU. She has collaborated with the "School of Aerospace, Mechanical and Manufacturing Engineering RMIT University, Melbourne, Australia" and the Faculty of Mechanical Engineering, University of Maribor, Slovenia, and in recent years has collaborated with researchers from the National Technical University of Athens, Greece and Manipal University of Jaipur. India.

Contribution to Nonlinear Sciences: Dr. Ivana Atanasovska has dedicated her entire previous scientific work to research in nonlinear sciences, in the field of nonlinear mechanics and its application to real complex systems, with special emphasis on the study of problems with coupled nonlinear problems. It can be said that Dr. Atanasovska dedicated her entire scientific research opus to nonlinear sciences in mechanics and engineering and their use to solve practical technical-technological problems.

A List of 5 Selected Research Publications

1. S. S. Patil, S. Karuppanan, I. Atanasovska, A. A. Wahab: Contact Stress Analysis of Helical Gear Pairs, Including Frictional Coefficients, *International Journal of Mechanical Sciences*, doi: 10.1016/j.ijmecsci.2014.05.013, Volume 85, August 2014, pp. 205-211.
2. I. Atanasovska: The Mathematical Phenomenological Mapping in Nonlinear Dynamics of Spur Gear Pair and Radial Ball Bearing due to the Variable Stiffness, *International Journal of Non-linear Mechanics*, doi:10.1016/j.ijnonlinmec.2014.11.015, Volume 73, July 2015, pp. 114-120.

3. I. Atanasovska, K. (Stevanović) Hedrih: The new collision model for analyzing of spur gears vibro-impact, *Transactions of FAMENA*, doi: 10.21278/TOF.42201, Volume 42, No. 2, 2018, pp. 1-13.
4. D. Šarac, I. Atanasovska, S. Vulović, N. Mitrović, I. Tasić: Numerical Study of the Effect of Dental Implant Inclination, *Journal of the Serbian Society for Computational Mechanics*, Vol.11, No.2, 2017, pp.63-79, doi: 10.24874/jsscm.2017.11.02.06
5. I. Atanasovska, D. Momčilović, M. Burzić, T. Vuherer: The coupled nonlineary problems in Finite Element Analysis – a case study**,** *časopis „Structural integrity and life"*, *International Journal Structural Integrity and Life*, Vol. 12, No 3, 2012, pp.201-208.

Link to Extended CV: [redacted]
Link to reference list: http://researchrepository.mi.sanu.ac.rs/cris/rp/rp00018