PERSONAL INFORMATION   **Gani BALBAYEV**

📍 Almaty, Kazakhstan

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Sex: **Male** | Date of birth: 11/04/1979

PREFERRED JOB   **Associate Professor/Researcher**

RESEARCH INTERESTS   Robotics, Mechatronics, Exoskeleton Design, Transmissions, Gearboxes, AI, Machine Learning, Aerospace Engineering

WORK EXPERIENCE

08/2021- to present	Vice-rector for science and cooperation, Academy of Logistics and Transport
04/01/2018 – 08/2021	Director of the Institute of Space Engineering and Telecommunications. Almaty University of Power Engineering and Telecommunications, Kazakhstan.
29/06/2017 – 03/01/2018	Head of Department of Electronics & Robotics. Almaty University of Power Engineering and Telecommunications, Kazakhstan.
10/10/2016 – 28/06/2017	Head of Department of Space Techniques and Technologies. Aerospace and Information Technologies faculty/ Almaty University of Power Engineering and Telecommunications, Kazakhstan
01/08/2016 – 10/10/2016	Vice Dean Faculty of Radio Engineering and Telecommunications. Almaty University of Power Engineering and Telecommunications, Kazakhstan.
01/01/2016 – 01/08/2016	Associate Professor Aerospace and Information Technologies faculty/ Dpt. of Electronics. Almaty University of Power Engineering and Telecommunications, Kazakhstan.
01/09/2015 – 01/01/2016	Senior Lecturer Aerospace and Information Technologies faculty/ Dpt. of Electronics. Almaty University of Power Engineering and Telecommunications, Kazakhstan.

EDUCATION AND TRAINING

2012 – 2015	PhD in Mechanical Engineering University of Cassino and South Latium, Cassino, Italy (with support of grant "BOLASHAK")
1996 – 2001	Basic education – Mechanical Engineering Kazakh National Technical University, Almaty, Kazakhstan.
01/07/2015 – 01/08/2015	FELLOWSHIP. Short term training at LARM: Laboratory of Robotics and Mechatronics University of Cassino and South Latium, Cassino, Italy
20/01/2011 – 22/03/2011	Scholarship of MIA of India, ITEC programme, "Graphic designing" at APTECH ltd. Delhi, India.

SKILLS AND COMPETENCES

-     Computer Skills   SolidWorks, AutoCAD, GIM, MSC Adams, LabView, Python
-     Languages   English – C1, Russian – C2, Kazakh – C2

RESEARCH ROJECTS

2014 - 2017	1. Grant funding of the Ministry of Education and Science of the Republic of Kazakhstan, title "Development of adaptive drives for manipulators", **Investigator**. Period: 36 months, at Institute of Mechanics and Machines after academician Dzoldasbekov U.
2018 - 2020	2. Grant funding of the Ministry of Education and Science of the Republic of Kazakhstan, for the project "Research and development of an innovative LED power source", **Supervisor of the project**. Period: 36 months, "Gylym Ordasy".
2018 - 2020	3. Grant of the Ministry of Education and Science of the Republic of Kazakhstan, for the project "Development and research of artificial vision of robotic systems", **Main Investigator.** Period: 36 months, "Gylym Ordasy"
• International projects 2016 - 2019	1. Project under the program ERASMUS +, "InnoCENS Innovative competencies and entrepreneurial skills in higher technical education", **participant**. Period: 36 months, Almaty University of Power Engineering and Communications.
2016 - 2019	2. Project under the program ERASMUS +, "APPLE Applied curriculum on the development of outer space and intelligent robotic systems", **participant.** Period: 36 months, Almaty University of Power Engineering and Communications.
2020 - 2022	3. Project under the program ERASMUS +, " Acesyri Advanced Centre For Phd Students And Young Researchers In Informatics ", **Supervisor.** Period: 36 months, Almaty University of Power Engineering and Communications.

PUBLICATIONS

More than 40 publications
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1. Nursultan, Z., Titov, A., Ceccarelli, M., **Balbayev, G.,** Design and Performance of a Motion-Assisting Device for Ankle. Mechanisms and Machine Science 113 MMS, c. 659-668.

2. **Balbayev, G.,** Mussina, A., Zhauyt, A., Shingissov, B., Kalekeyeva, M., Neural Control for Image Stabilisation Using a Reference Model. International Journal of Mechanical Engineering and Robotics Research 10(1), c. 17-21.

3. **G. Balbayev**, A. Nussibaliyeva, B. Tultaev, E. Dzhunusbekov, G. Yestemessova, A. Yelemanova. A novel regenerative snubber circuit for flyback topology converters. Journal of Vibroengineering. Vol. 22, Issue 4, 2020, p. 983-992. https://doi.org/10.21595/jve.2020.20898.

4. Ivanov, K., Ceccarelli, M., Yestemessova, G., Nurgizat, Y., Balbayev, G., Design and Characterization of a Gearbox Joint for Manipulators. Mechanisms and Machine Science 73, c. 2261-2268.

5. E. Nurgizat, D. Kanguzhiyev, D. Radev, **G. Balbayev**. FPGA (Field Programmable Gate Array) Technology for Space Communications. Journal of Engineering Science and Technology Review. 2020 Special Issue, SI (2020), pp. 54-57.

6. A. Nussubaliyev, A. Mussina, **G. Balbayev**. Artificial Adaptive Filter for Robotic Systems. Journal of Engineering Science and Technology Review. 2020 Special Issue, SI (2020), pp. 118-121.