#### **Author's information**





#### 1. Full name:

Dzamanbayev Muratkali.

# 2. Position, academic degree, title:

candidate of physical and mathematical sciences, docent (associate professor).

## 3. Education:

- higher, 1974 1979, Kazakh polytechnic institute, faculty of "Automation and computer engineering", qualification "Engineer systems engineer", diploma G-1 № 276603 dated July 1, 1979;
- candidate of physical and mathematical sciences, 01.02.01 "Theoretical mechanics", № 0000584, protocol № 29 dated May 18, 1993;
- docent in the specialty "Computer science, somputer engineering and management", MES RK dated September 27, 2007, protocol № 7 DC № 0000944.

# 4. Field and directions of research, including participation in scientific projects with a brief description of the research results:

Research area:

- power industry.

Directions of research:

- assessment and management of the reliability of electric power systems.

#### Participation in scientific projects:

- for the period from 2005 to 2007 participation in an internationally funded project as a team leader from the Republic of Kazakhstan (research work under the Individual grant INTAS Ref. № 03-51-3736 "Control of galloping on high voltage overhead electrical lines", coordinator of which is Pr. Dr. Jean-Louis LILIEN, Belgium).

#### Results:

- testing and evaluating the effectiveness of the TDD wire dance dampener (jointly developed by Liege University, Belgium and Elektrosetj story project, Russia) at the experimental site of the Kazakh Research Institute of Energy named after Academician Sh.Ch. Chokin.
- start: 1st quarter 2020, end: 4th quarter 2022, head of the initiative research work "Comprehensive study of the dance of wires of high-voltage power lines", № state registration 0119RKI0373.

#### Results:

- based on a comprehensive study of the dance of wires, recommendations are developed aimed at improving the reliability of the operation of high-voltage power lines.
- 5. List of the most significant publications (monographs, patents, developed standards):

## **Tutorials:**

- 1) Jamanbayev M.A. Textbook on the course "Reliability of control systems" Almaty, ATU, 2001. 80 pages;
- 2) Jamanbayev M.A. Training manual for the discipline "Reliability of control systems".-Almaty, ATU, 2006. 90 p.;
- 3) Jamanbayev M.A. Manual "Reliability of Electric Power Systems".- Almaty, Kazakh national research technical university, 2014. 165 p.;
- 4) Dzhamanbayev M.A., Chakeyeva K.S., Dzhumabekova Z.A. Linear automatic control system: textbook Almaty, Almanakh, 2019. 176 p.

#### **Scientific works:**

- 1) Dzhamanbaev M.A., Chakeeva K.S., Zh.E. Karataeva, Dzhumabekova Z. Method for calculating critical wind speeds when determining the area of aerodynamic instability of the wires of the split phase of a multi-span transmission line.- Measuring equipment, № 6, 2019, pp. 25-30;
- 2) M.A. Djamanbayev, J.E. Karataeva, Z.A. Dzhumabekova Auto-oscillations of wires of high voltage power lines (anchor span).- Vestnik ATU. Almaty, Issue 2(127). 2020 № 2. pp. 54-60;
- 3) Jamanbayev M.A., Ongar B., Iliyeva D., Abitayeva R.Sh. Determination of the minimum wind speed leading to the galloping of conductors.- E3S Web Conf. Volume 180, 2020. 9th International Conference on Thermal Equipments, Renewable Energy and Rural Development (TE-RE-RD 2020);

- 4) Jamanbayev M.A., Amangeldy A.E. Ensuring the stability of a closed circuit for stabilizing indoor air temperature.- // Internauka: electron. scientific magazine 2021. No. 19(195). Page 17-20. URL: https://internauka.org/journal/science/internauka/195;
- 5) Mussabayev Y., Dzhamanbayev M. Identification of a steam boiler using an experimental transition characteristic.- // Proceedings of the XXI International Multidisciplinary Conference "Recent Scientific Investigation". Primedia E-launch LLC. Shawnee, USA. 2021. https://www.internauka.org/11.06.2021;
- 6) Musabayev E.K., Jamanbayev M.A. "Zhanarmai kazandyktagy bu kysymy" channels of boyinsha bu ondiru kazandygynyn berilis functions.- Bulletin of ATU No. 1 (131) 2021. P. 16-21;
- 7) Jamanbayev M.A. Physical and energy models of the dance of wires of a power line [Text] / M.A. Jamanbaev, N.B. Zhumakhan, E.S. Ilyasov //Mechanics and Technologies /Scientific Journal.-2022.-№ 4(78).-P.75-80. https://doi.org/10.55956/QPSL9304.

#### **Author's certificates:**

- 1) COPYRIGHT CERTIFICATE № 1360520. On the basis of the powers granted by the Government of the USSR, the USSR State Committee for Inventions and Discoveries issued this copyright certificate for the invention: "Split phase wire of an overhead power line". Authors: Shirinskikh N.V., Bekmetyev R.M., Zhakayev A.Sh., Dzhamanbayev M.A. Applicant: Kazakh scientific research institute of energy. Application № 3899353. Priority of the invention May 22, 1985. Registered in the State Register of Inventions of the USSR on August 15, 1987. The copyright certificate applies to the entire territory of the USSR;
- 2) COPYRIGHT CERTIFICATE of the USSR № 955219 "Devices for fixing the wire of the power line on the neck of the insulator" (bulletin № 3, 1997). Authors: Shirinskikh N.V., Dzhamanbayev M.A.;
- 3) COPYRIGHT CERTIFICATE № 46989 dated 06.02.2004 "Devices for wire suspension". Author: M.A. Dzhamanbayev;
- 4) UTILITY MODEL № 108828 dated 17.03.2020 Dzhamanbayev M.A., Bekbayev A.B., Akpanbetov D.B., Abitaeva R.S. "Spacer-extinguisher for suppressing the dancing of wires of the split phase of an overhead power line". Author's certificate № 1088287 dated 17.03.2020, RSE "National Institute of Intellectual Property", Ministry of Justice of the Republic of Kazakhstan. Nur-Sultan.

## 7. Achievements in research, teaching activities (awards):

Certificates of honor and letters of thanks:

## 1) CERTIFICATE of HONOR

for a great contribution to the cause of professional orientation, conscientious work and active participation in the life of the University, KazNITU named after K.I. Satpayev, Almaty, 2016;

#### 2) LETTER OF THANKS

for active participation in the organization and holding of the Olympiad KazNRTU named after K.I. Satpayev, Almaty, 2014;

## 3) LETTER OF THANKS

for participation as a leader in the Republican subject Olympiad of students of higher educational institutions of the Republic of Kazakhstan in the specialty "Automation and management", Almaty, 2022;

# 4) CERTIFICATE OF HONOR

for services to the spiritual and social development of independent Kazakhstan and a great contribution to its prosperity, Nur-Sultan, 2019;

# 5) CERTIFICATE of HONOR

in honor of the 25th anniversary of Independence of the Republic of Kazakhstan, for many years of decent work, scientific activity and a great contribution to the training of highly qualified specialists and scientific personnel, Almaty, 2016;

## 6) DIPLOMA OF THE I DEGREE

for participation in the contest "Best scientific work" in the section "Technical Sciences" based on the results of the International Scientific and Practical Conference "Topical issues of science and education: theoretical and practical aspects", Chisinau, Moldova, May 13, 2020;

## 7) DIPLOMA, MK 1248 series № 097

I place in the section "Technical Sciences" of the XXXIV International Scientific and Practical Conference "EUROPEAN RESEARCH". Author of the scientific work: "Experimental dependence between the twisting angle of split phases and single wires on the applied torque", Russian Federation, Penza, December 7, 2021.:

#### 8) DIPLOMA, MK 1271 series № 052

I place in the section "Technical Sciences" of the International Scientific and Practical Conference "Breakthrough scientific research: topical issues of theory and practice". Author of the scientific work: "Static torsional rigidity of the split phase of the power line", Russian Federation, Penza, December 30, 2021.

## 8. E-mail address, contact details (tel.: work (ext.), cell.):

E-mail: dzhamanbaev@mail.ru

Cell. tel.: 8-701-768-35-01.