

Prof. Dr. Botir Shukurillaevich Usmonov

Rector, mechanical engineer; information and communication technologies; mechatronics (mechanics and information technologies)

1. PERSONAL DATA

date of birth: March 24, 1968
place of birth: Samarkand, Uzbekistan

2. SCIENTIFIC DEGREES

1993 **BSc, mechanical engineer**, Kazan State Technical University (in russian).

1999 **MSc, information and communication technologies** University of Andra (in english).

2001 **MSc, mechatronics (mechanics and information technologies)**, Hamburg University of Technology (in english).

1999 **PhD**, Tashkent State aviation Institute, Technical science in Aerodynamics and design of aircrafts.

2020 **DSc**, Institute of retraining and advanced training of leaders and specialists of the public education system. Supervisor: doctor of biological sciences, professor Kushiev Habibjon Hojiboboyevich.
Dissertation title: Innovative development of higher education, science and industry integration based on cluster approaches.

2023 **DSc**, Bukhara Institute of Engineering and Technology. Supervisor: doctor of physics and mathematics, professor Safarov Ismail Ibrokhimovich.
Dissertation title: Scientific bases of vibrations of hereditary - deformable structural elements of an aircraft in a gas flow.

3. WORK ACTIVITIES (1993-)

2020 – Rector of Tashkent institute of chemical technology.

2019 – 2020 Deputy Minister of Economy and Industry of the Republic of Uzbekistan.

2017 – 2019 Vice-rector for scientific affairs and innovations of Tashkent University of Information Technologies named after Muhammad al-Khorazmi.

2017 – 2017 Vice-rector for Scientific Affairs of Tashkent University of Information Technologies.

2016 – 2017 Associate Professor of the Department of "Applied Mathematics and Informatics" of Moscow State University named after V.M.Lomonosov, branch in Tashkent.

2013 – 2016 Deputy Minister of Higher and Secondary Specialized Education of the Republic of Uzbekistan.

2012 – 2013 Leading consultant on higher education issues of the group for the implementation of the national program for the development of education and training at the Office of the President.

2008 – 2012 Academic secretary, deputy dean, deputy director for educational and scientific affairs of Moscow State University named after V.M.Lomonosov, branch in Tashkent.

2007 – 2008 Professor, Department of Information Technology and Engineering, Konuk University (Korea).

2002 – 2007 Associate Professor, Head of Department, Dean of Tashkent State Aviation Institute.

2001 – 2002 Chief specialist of the Central Asian representative office of Daimler-Chrysler.

1995 – 1997 Senior teacher, Head of Scientific Department, Head of International relations Department at Tashkent State Aviation Institute.

1993 – 1995 Researcher, assistant at Tashkent State Technical University.

4. AWARDS

- "25th Anniversary of Independence of Uzbekistan" badge, **2016**
- "30th anniversary of the independence of the Republic of Uzbekistan" badge, **2021**
- "30th anniversary of the Constitution of the Republic of Uzbekistan" badge, **2022**
- "Honorary professor" Obuda university (Hungary), 2023
- "Honorary professor" Qilu university (China), 2023

5. FIELD OF EXPERTISE

- mechanical engineer;
- information and communication technologies;
- mechatronics (mechanics and information technologies)
- new innovative methods of teaching

6. SUBJECTS TAUGHT

English: Aerodynamics, Mechatronics at Konkuk University,

Russian: IT, Quantum Mechanics at Moscow State University named after V.M.Lomonosov, branch in Tashkent

Uzbek: Intelligent methods of calculation, Fundamentals of artificial intelligence in control systems

Tashkent Institute of Chemical Technology,

Aerodynamics, Mechatronics, Robotics at Tashkent State Aviation Institute,

Aerodynamics, Mechatronics, Robotics at Tashkent State Technical University.

7. MEMBERSHIP IN ORGANIZATIONS AND COUNCILS

- Member of the Scientific and Technical Council for "Startups" under the Ministry of Innovative Development of the Republic of Uzbekistan 2022 –
- Chairman of the Scientific Council of TICT 2020 –
- Chairman of the Admission Commission for Doctoral Studies (DSc) of TICT, 2020 –
- Member of the editorial board of the scientific and technical journal "Chemistry and Chemical Technology" 2020 –
- Chairman of Scientific Council PhD.3/03.06.2023.T.04.03 awarding the scientific degree of Doctor of Philosophy (PhD) in technical sciences under Tashkent Institute of Chemical Technology.
- Member of the Triple Helix organization;
- Vice-Chairman of the Euro-Asian Department of the PRME organization "Principles of Responsible Management Education" established under the United Nations;
- Member of the Association of Technical Universities;
- Member of the Eurasian Association of Universities EURAS.
- Member of Institute of Pedagogical researches, Austria.

8. DEFENDED PHD STUDENTS

2021 Rahimov Kuvvatali Ortykovich. (**Dissertation title:** *Mathematical modeling of successively deformable elements of aircraft constructions*), Tashkent University of Information Technologies.

9. PARTICIPATION IN PROJECTS

- European Education and Culture Executive Agency (EACEA) "ECAMPUS European World Talent Camp for Uzbekistan Scientists in Food Science and Technology" (2023-2026), Coordinator.
- German Society for International Cooperation (GIZ) GmbH, Project: "Professional Development of Teachers in Central Asia for Sustainable Training in Food technologies And Development of Food Technology Study Programmes for the Advancement of New Professionals in the Central Asia Region", Head of Project.

- Swiss National Science Foundation (SNSF). Research group
- The international project "Development of the Makerspace experimental research laboratory" in cooperation with the University of Wisconsin-Madison in the framework of the international program "Central Asia University Partnerships Program" of the American Council for International Education of the USA, Head of Project.
- FZ-201908159 scientific-research group on the topic "Development of the technology for obtaining dietary margarine enriched with functional additives based on local raw materials". Project member.
- An international scientific project funded by the World Bank within the "Advanced Research Program" of the "MUNIS" ("Modernization of the National Innovation System of Uzbekistan"). Project member.
- Project No. 16k/22 "Improvement of the technology of water treatment for the production of polyethylene at the Shurtan Gas Chemical Complex LLC". Project member.
- International project "Strengthening HEI-industry integration (in the example of the ceramic industry)" based on the higher education development program of the Academic Innovation Fund. Head of Project.
- World Bank Project Modernizing higher education of the Republic of Uzbekistan. National Expert

10. SCIENTIFIC/PROFESSIONAL PUBLIC ACTIVITIES

a. Conference organization

- General / Honorary Chair:
 - "EURO ASIA 8th INTERNATIONAL CONGRESS ON APPLIED SCIENCES" 2021, 15-16 March, Tashkent, Uzbekistan.
 - 9th International Conference on Culture and Civilization March 15-16, 2021, Tashkent, Uzbekistan.
 - The republican scientific and practical conference dedicated to the 85th anniversary of the birth of Makhsumov Abdukhamid Gofurovich and the 65th anniversary of his work and scientific activity with the participation of international scientists on the topic "Current problems of chemical and technological sciences" March 10-11, 2021, Tashkent, Uzbekistan.
 - Non-traditional directions in the production of food and feed products - Republican scientific and technical conference, March 11-12, 2021, Tashkent, Uzbekistan.
 - "Umidli kimyogalar-2021" XXX- Ministry-wide scientific and technical conference of young scientists, graduate and undergraduate students, April 12-16, Tashkent, Uzbekistan.
 - "Current problems of innovative technologies of chemical, oil and gas processing and food industries" International scientific and technical conference dedicated to the 30th anniversary of the Tashkent Institute of Chemical Technology, May 26, 2021, Tashkent, Uzbekistan.
 - International scientific and technical conference on "Innovative technologies in ensuring the quality and safety of chemical and food products" September 24-25, 2021, Tashkent, Uzbekistan.
 - International scientific and technical conference on "Innovations in the oil and gas industry, modern energy and its problems" November 29, 2021, Tashkent, Uzbekistan.
 - "Current problems of innovative technologies and ecology of processing in chemical and building materials industries" Republican scientific and technical conference, November 23-24, 2021, Tashkent, Uzbekistan. "Perspective chemists-2022" - scientific and technical conference April 12-15, 2022, Tashkent, Uzbekistan.
 - International scientific and technical conference "Innovative approaches to the development of educational and industrial clusters in the oil and gas sector" April 30, 2022, Tashkent, Uzbekistan.
 - "1st Tashkent International Congress of Modern Knowledge (TASHKENT 1th INTERNATIONAL CONGRESS ON MODERN SCIENCES)" May 10-11, 2022, Tashkent, Uzbekistan.

- International scientific and technical conference "Innovative technologies for the production of glass, ceramics and binders". May 23-24, 2022, Tashkent, Uzbekistan.
- Republican Scientific and Practical Conference "Practical Issues of Mechanics and Mathematics" May 26-28, 2022, Tashkent, Uzbekistan.
- "Modern problems of ecology and environmental protection and biotechnology" International scientific and technical conference June 15-16, 2022, Tashkent, Uzbekistan.
- Republican scientific and technical conference "Actual problems of chemistry and technology of biologically active substances based on natural compounds" September 28-29, 2022, Tashkent, Uzbekistan.
- Republican scientific and technical conference "Actual problems of innovative technologies in the development of the chemical, oil and gas processing and food industries" November 22-25, 2022, Tashkent, Uzbekistan.
- "International Congress of Science and Engineering Knowledge of Mirzo Ulugbek" - international scientific and practical conference March 16-18, 2023, Tashkent, Uzbekistan.
- "International Humanitarian Congress named after Alisher Navoi" is an international scientific and practical conference. March 16-18, 2023, Tashkent, Uzbekistan.
- "International Congress of Medical Sciences named after Ibn Sino" is an international scientific and practical conference. March 16-18, 2023, Tashkent, Uzbekistan.
- "The current state, prospects for modeling and optimal control of technological processes in the oil and gas and food industries" Republican scientific and technical conference April 11-12, 2023, Tashkent, Uzbekistan.
- The scientific and technical conference "Perspective Chemists-2023" was held on the scale of the Ministry of Higher and Secondary Specialized Education on April 25-26
- International scientific and technical conference "Prospects for the development of cellulose and its derivatives", dedicated to the 85th anniversary of Academician G. Rakhmonberdiev May 16-17, 2023, Tashkent, Uzbekistan.
- "Innovative technologies for the production of glass, ceramics and binders" within the framework of the International Chemistry Week May 26-28, 2023, Tashkent, Uzbekistan.
- International scientific and technical conference "Issues of food industry development in Central Asia" June 2-3, 2023, Tashkent, Uzbekistan.
- "Innovative technologies in ecology and environmental protection" Republican scientific and technical conference June 15-16, 2023, Tashkent, Uzbekistan.

- **Plenary speaker**

- Uzbek-Korean forum of rectors of higher educational institutions, Tashkent, Uzbekistan, 2023;
- "Innovative technologies for the production of glass, ceramics and binders" within the framework of the International Chemistry Week, Tashkent, Uzbekistan, 2023;
- Uzbekistan-Hungary forum of rectors of higher educational institutions, Budapest, Hungary, 2023;
- Uzbekistan-Russia 3rd educational forum, Samarkand, Uzbekistan, 2022;
- International scientific and technical conference "Innovative technologies for the production of glass, ceramics and binders", Tashkent, Uzbekistan, 2022;
- "Current problems of innovative technologies of chemical, oil and gas processing and food industries" International scientific and technical conference dedicated to the 30th anniversary of the Tashkent Institute of Chemical Technology, Tashkent, Uzbekistan, 2021;

- **b. Publications**

- B. Usmonov, O. Radjapov. (2017). Study of development experience and innovation management in clusters. Tashkent: "Fan va texnologiya".
- B. Usmonov, U. Shukurillaev. (2022). Ecology and the transport system: a sustainable and ecological future. International Scientific and Technical Conference "Modern Problems of

Ecology and Environmental Protection and Biotechnology”.

- B. Usmonov. (2021). Characteristics of the formation and functioning of scientific and productive clusters in the regional economy. Perspectives of higher education Development 9, 43-47.
- B. Usmanov, F. Rakhimov, K. Kushiev. (2020). Cluster theory and practical approaches to it. Minister of Economy of Uzbekistan. Available in: КЛАСТЕР 2020.pdf (mineconomy.uz)
- B. Usmonov. (2017). Problems of entering the market of international educational services and scientific-innovative products. Outlook for the development of higher education, 14-19.
- B. Usmonov. (2018). The Educational and Research Centres in Universities. Higher Education Research 3, 1-5.
- B. Usmonov, F. Rakhimov, M. Dusmukhamedova. (2016). Innovative corporate cooperation of education, science and production is at a new stage. Education, science, and innovation 1 (1), 6-9.
- B. Usmonov, F. Rakhimov. (2015). Mutual innovative cooperation of education, science and production is the guarantee of development (in Uzbek). Education, science and innovation 3, 6-9.
- B. Usmonov. (2020). Innovation of university system in the field of scientific staff training in Europe and Uzbekistan: experience and problems. Chemistry and chemical engineering 1 (1), 3-9.
- B. Usmonov. (2022). Integration of higher education, science and industry. Proceedings Book of First International Congress on Modern Sciences.
- B. Usmonov, V. Aripov. (2022). Integration of the scientific activity of the university into the innovation system of the country. Innovative approaches to the development of an educational and industrial cluster.
- B. Usmonov, K M. K, ZX. Umarov. (2021). The role of science-education clusters in the strategic development of education. Scientific Bulletin 128 (4), 38-47.
- F. Rakhimov, B. Usmonov. (2020). The role of human capital, scientific, scientific and pedagogical staff and its role in innovative development. Economics and Education 1 (1), 158-166.
- F. Rakhimov, B. Usmanov. (2019). Approach to the formation of integration, innovative environment and innovative thinking. Vestnik AnGU.
- B. Usmonov, O. Radjabov. (2018). Foreign experience in the development and management of innovations in clusters. LAP Lambert Academic Publishing (2018-07-04).
- B. Usmonov, B. Mardonov, R. Rakhmatov. (2018). An analysis on the process of moisture extraction in the raw cotton and its components. International Journal of Mechanical and Production Engineering Research and Development, 8, 6, 107-116.
- B. Usmonov. (2015). An example of integration of university science into the national innovation system. Scientific and methodical collection, 66-75.
- B. Usmonov. (2013). Commercialization of the results of scientific activity. Scientific and practical journal "Intellect Info", 11-14.

More publications are available on

<https://scholar.google.com/citations?user=KOyt9gMAAAAJ&hl=en>

c. Inventions and patents

- SOLAR DRYER, Abdurakhmanov Kahar Pattakhovich, Usmonov Botir Shukurillaevich № FAP 01770, 01.02.2019.
- MACHINE FOR REMOVING HAIR AND CLEANING THE SURFACE OF LEATHER RAW MATERIALS, Usmonov Botir Shukurillaevich, Shernaev Anvar Normamatovich № IAP 07338, 25.11.2022.

11. LANGUAGE KNOWLEDGE

- **English** Advanced user;
- **Russian** Advanced user;
- **German** Elementary;
- **Uzbek** Native.

Prof. Dr. Botir Sh. Usmonov

