



TUYGUNJON SHAKIROV

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Olmazor District, Tashkent City,
Uzbekistan

🌐 www.taqu.uz

▶ Academic Title: Professor, PhD

▶ ORCID: 0000-0001-6191-7240

🔍 Scopus ID:
tuygunshakirov2@gmail.com

G scholar.google.com/citations?use
r=tuygunshakirov2@gmail.com

Research Areas

Technology for obtaining porous
aggregate from quartz porphyry and
carbon mining waste for lightweight
concrete ●●●●●

Languages

Uzbek ●●●●●

Russia ●●●●●

English ●●●●●

Education

Tashkent Institute of Architecture and Civil Engineering Sep 2001 - May 2003

Production of Construction Materials, Products, and Structures

Master of Science - Uzbekistan

Tashkent Institute of Architecture and Civil Engineering Sep 2003 - May 2006

Construction Materials and Products

Doctor of Philosophy (PhD) - Uzbekistan

Employment

Head of department Technology of building materials Aug 2023 - Present

Tashkent University of Architecture and Civil Engineering, Tashkent

Description: The Head of the Department of Technology of Building Materials is responsible for the strategic, academic, and administrative management of the department. The position includes overseeing educational programs, coordinating research activities, managing faculty members, and ensuring high standards of teaching and scientific work in the field of building materials technology.

Head of department Technology of building materials, products and structures Aug 2020 - Jul 2023

Tashkent Institute of Architecture and Civil Engineering, Tashkent

Description: The Head of the Department of Technology of Building Materials, Products and Structures is responsible for the overall academic, research, and administrative management of the department. The role includes supervising educational programs, coordinating scientific research, managing faculty and staff, and ensuring high standards in teaching and innovation in the field of building materials, construction products, and structural technologies.

Head of department Technology of building materials, products and structures Aug 2016 - Jul 2018

Tashkent Institute of Architecture and Civil Engineering, Tashkent

Description: The Head of the Department of Technology of Building Materials, Products and Structures is responsible for the overall academic, research, and administrative management of the department. The role includes supervising educational programs, coordinating scientific research, managing faculty and staff, and ensuring high standards in teaching and innovation in the field of building materials, construction products, and structural technologies.

Head of laboratory Department of Precast Concrete Production Aug 2007 - Jul 2011

Tashkent Institute of Architecture and Civil Engineering, Tashkent

Grants & Projects

- 2018–2020: OT-Atex-2018-178
“Qishloq xo‘jaligi chiqindilari asosidagi o‘rta qatlamli past mustahkam betonli uch qavatli temir-beton elementlarning deformatsiya xossalari, mustahkamligi, qattiqligi va yorilishga chidamliligini hisoblash usulini yaratish” “Amaliy loyiha”. (O‘RQV)
- 2018–2020: OT-Atex-2018-179
“Mahalliy xomashyo va ko‘mir qazib olish chiqindilari asosida yengil va past mustahkam beton uchun g‘ovak agregat ishlab chiqarish bo‘yicha resurs va energiya tejovchi texnologiyalarni ishlab chiqish” “Amaliy loyiha” (O‘RQV)
- 2020–2022: KM-20192512 “Mahalliy xomashyo asosida yangi yoqilmaydigan bog‘lovchilarning resurs va energiya tejovchi texnologiyasini ishlab chiqish” “Amaliy loyiha” (O‘RQV)
- 2023–2023: IL-22209824
“Standartlarga javob beradigan va seysmik chidamli tuzilishga ega bazalt metall va shisha asosida tolali beton ishlab chiqarish texnologiyasini yaratish” “Amaliy loyiha” (O‘RQV)
- 2023–2024: IL-21012453-raqamli
“Ikkilamchi xom-ashyo asosida yaratilgan import o‘rnini bosuvchi modifikatsiyalangan superplifikator qo‘shilgan yuqori mustahkamlikka ega va emirilishga bardoshli beton ishlab chiqarish texnologiyasini yaratish” (O‘RQV)
- 2024–2025: O‘zbekiston Respublikasi Prezidentining 2022-yil,6-iyuldagi PQ-307 sonli buyrug‘iga asosan
“Izolyasion qatlami qishloq xo‘jalik chiqindilari asosidagi betonlardan tashkil topgan uch qatlamli yengil keramzit beton elementlari ekspluatatsiyasiga kompozit armaturalar ta'sirini tadqiq etish” (O‘RQV)
- 2024–2025: O‘zbekiston Respublikasi Prezidentining 2022-yil,6-iyuldagi PQ-307 sonli buyrug‘iga asosan “Ko‘mir sanoati chiqindisidan foydalanib olingan g‘ovak to‘ldiruvchi va ular asosidagi yengil betonlar” (O‘RQV)
- 2026–2026: : IL-8724053114 “Study on the high-efficiency thermal insulation materials and structures for non-transparent envelope of low-carbon buildings”

Description: The Head of Laboratory at the Department of Precast Concrete Production is responsible for managing laboratory operations, supporting educational and research activities, and ensuring the proper use and maintenance of laboratory equipment. The role includes supervising laboratory staff, organizing experimental work, and facilitating practical training for students in the field of precast concrete technology and production.

Publications

Rehabilitation Physical and Chemical Re-search Methods of Lightweight Concrete. Physical and technical properties, benching mixtures, industrial waste.

T.T. Shakirov, U.Yusupov, B.Khasanov.

International Journal of Psychosocial

DOI: <https://www.psychosocial.com/article/PR2020770/31239/>

Optimal compositions of filling mixtures, cooking and laying technology.

Rakhimov Sh.T., Shakirov T.T.

Scientific journal "International journal of scientific & Technology research"

DOI: <http://www.ijstr.org/research-paper-publishing.php?month=apr2020.>

Porous aggregate developed with the use of coal-containing clays of the Angren field.

X.X. Khamilov, T.T Shakirov, N.A. Mo'minova

Proceedings of Tomsk Polytechnic University. Georesource engineering.

DOI: <https://doi.org/10.18799/24131830/2024/11/4476>

Determination of the composition of the Optimal use of the additive Poly-Plast C3 for cement paste

T.T.Shakirov, N.A.Muminova

The first International Conference on problems and perspectives of modern science

ICPPMS

DOI: <https://aip.scitation.org/journal/apc>

Effect of relamix additive on cement properties

Gaziev U.A., Akramov Kh.A., Shakirov T.T., Rakhimov Sh.T.

International journal for innovative research in multidisciplinary field

DOI: <https://www.ijirmf.com/wp-content/uploads/IJIRMF201908029.pdf>

Research of physical and technical properties of benching mixtures based on industrial waste

Rakhimov Sh.T., Shakirov T.T., Khudoinazarova Q.Zh., Babakulova N.B.

Scientific journal "Polish journal of science"

DOI: <https://www.polish-science.com/wp-content/uploads/2020/01/polish-journal-of-science-%E2%84%9623-2020-vol.-1.pdf>.

Selection of the optimal composition of lightweight concrete based on porous quartz porphyry filler

Gaziev U.A., Shakirov T.T., Rakhimov Sh.T.

Scientific journal "Modern industrial and civil construction"

DOI: <http://iejrd.com/index.php/%20/article/view/1205>

Patents & Industry

■ Yengil keramik to'ldiruvchi uchun xom ashyo aralashmasi va uni olish usuli (2022)

No 02088 — O'zbekiston

Development of the properties of binders using mineral and chemical additives

Shakirov T.T. Muminova N.A

MODERN INDUSTRIAL AND CIVIL BUILDING

DOI: <http://spgs.donnasa.ru/>

Influence of materials of complex-active mineral and chemical additives on the properties of binders

Shakirov T.T. Muminova N.A

International Journal of Engineering (IJERD)

DOI: <http://iejrd.com/index.php/%20/article/view/1205>

Investigation of chemical additives of polyplast on the properties of Portland cemen

Shakirov T.T. Muminova N.A

Spanish International Journal of Progressive Science and Technology

DOI: <https://ijpsat.ijpsat-journals.org/index.php/ijpsat/article/view/3212>

Investigation of the effect of Strong 17 concrete on the physical and mechanical characteristics of lightweight concrete based on expanded clay

Shakirov T.T., Bazarbaev M.

Scientific-methodical journal of Uzbekistan "Scientific progress"

DOI: <http://scientificprogress.uz/storage/app/media/2-5.%20090.%20513-518.pdf>

“Research of the Influence of the "BETON STRONG 17" Additive on the Physical and Mechanical Characteristics of Lightweight Concrete Based on Expanded Clay”

Shakirov T.T., Bazarbayev

International Journal of Discoveries and Innovations in Applied Sciences

DOI: <http://www.Openaccessjournals.eu>

Study of the Influence of Superplasticators on the Properties of Cement

Shakirov T.T., Usmanova D.A

MIDDLE EUROPEAN SCIENTIFIC BULLETIN

DOI: <https://cejsr.academicjournal.io/index.php/journal/article/download/827/762/2289>

Study chemical additives polyplast c-3 on the properties of portland cement.

Shakirov T.T. Muminova N.A

JournalNX-A Multidisciplinary Expert Journal

DOI: <https://repo.journalnx.com/index.php/nx/article/view/2756/2710>

The effect of plasticization on additives that affect the properties of cement stone

Shakirov T.T. Muminova N.A.

International Orange Technology Journal

DOI: <https://journals.researchparks.org/index.php/IJOT/article/view/1407>

POROUS AGGREGATE DEVELOPED USING CARBONIZED CLAY FROM THE ANGREN FIELD

Shakirov T.T. Muminova N.A.

JournalNX- A Multidisciplinary Peer Reviewed Journal

DOI: <https://repo.journalnx.com/index.php/nx/article/view/3923>

Study Chemical Additives Polyplast C-3 on the Properties of Portlandcement with Mineralogic Components I

Shakirov T.T. Muminova N.A.

International Journal of Discoveries and Innovations in Applied Sciences

DOI: <https://openaccessjournalseu/index.php/ijdias/article/view/1084>

Investigations of the processes of structure formation in concrete conditions on winter concreting

T.T.Shakirov, Qodirov O, Usmonova D

Multicultural Education

DOI: <https://journalppw.com/index.php/jppsp/article/view/8283>

The role of chemical additives in the development of concrete composition

Shakirov T.T.

Journal of science, research and teaching (JEEMA)

Significance of aggregates in concrete, advantages of artificial aggregates for concrete

Shakirov T.T.

Journal of engineering, mechanics and modern architecture (JEEMA)

The role of chemical and mineral additives in the development of high-strength concrete composition

Shakirov T.T.

Journal of engineering, mechanics and modern architecture (JEEMA)

Porous Aggregate from Coal Mining Waste and Development Light Weight Concrete Based on It.

Shakirov T.T. Muminova N.A.

Innovative: International Multidisciplinary Journal of Applied Technology (IMJAT)

DOI: <https://multijournals.org/index.php/innovative/article/view/2750>

Porous aggregate from coal mining waste and lightweight concrete based on it.

Gaziev U.A., Shakirov T.T. Rakhimov Sh.T.

Scientific and practical journal of Architecture. Construction. Design

DOI: <http://taqi.uz/ru/>

Influence of the "Relamix" additive on the properties of lightweight concrete.

Gaziev U.A., Shakirov T.T. Rakhimov Sh.T.

Scientific and practical journal of Architecture. Construction. Design

DOI: <https://www.ijirmf.com/wp-content/uploads/IJIRMF201908029.pdf>

Research of promising trends in pedagogy which influence the success of the educational process.

Shakirov T.T. Muminova N.A.

Oriental Renaissance: Innovative, educational, natural and social sciences

DOI: <http://sjifactor.com/passport.php?id=21584>

Porous filler designed using clay rocks and coal mining waste

Shakirov T.T. Muminova N.A.

Involta Innovative Scientific journal

DOI: <https://involta.uz/>

RESEARCH OF THE INFLUENCE OF THE "BETON STRONG 17" ADDITIVE ON THE PHYSICAL AND MECHANICAL CHARACTERISTICS OF LIGHTWEIGHT CONCRETE BASED ON EXPANDED CLAY

T.T. Shakirov, M.M. Bazarbaev

JOURNAL OF SCIENTIFIC RESEARCH AND INTERDISCIPLINARY INNOVATIONS

STUDYING THE EFFECT OF ADD "BETON STRONG 17" ON THE PHYSICAL MECHANICAL PROPERTIES OF LIGHTWEIGHT CONCRETES BASED ON KERAMZITE STUDYING THE EFFECT OF ADD

T.T. Shakirov, M.M. Bazarbaev

International scientific and educational electronic journal "EDUCATION AND SCIENCE IN THE XXI CENTURY"

Development of technology of porous fillers from local raw materials of carbonate waste "waste of carbonate rocks, porous aggregates

Shakirov T.T., Rakhimov Sh.T.

Problems of geotechnics of Uzbekistan and their modern solutions. "Republican scientific-practical conference

DOI: . [https:// interactive .oak.uz / abstract / 3a0669f01.file](https://interactive.oak.uz/abstract/3a0669f01.file)

Development of the properties of binders using mineral and chemical additives

Shakirov T.T. Muminova N.A.

Ministry of education and science of the donetsk people's republic sei hpe "Donbass National Academy of Civil Engineering" and Architecture" Behavior of concrete and reinforced concrete structures under loads and thermal and moisture effects of various durations

DOI: <http://www.donnasa.ru>

Selection of the optimal composition of lightweight concrete based on porous filler made of quartz porphyry and carbonized clay

Gaziev U.A., Shakirov T.T., Rakhimov Sh.T.

Ministry of education and science of the donetsk people's republic sei hpe "Donbass National Academy of Civil Engineering" and Architecture" Behavior of concrete and reinforced concrete structures under loads and thermal and moisture effects of various durations

DOI: <http://www.donnasa.ru>

The influence of materials of complex-active mineral and chemical additives on the properties of binders

Shakirov T.T. Muminova N.A.

International symposium "Innovative technologies in the production of building materials and structures"

DOI: <https://taqi.uz/>

Study chemical additives polyplast c-3 on the properties of portland cement

Shakirov T.T. Muminova N.A.

International Conference on "Innovation, Integration, Economy in the field of architecture and construction"

DOI: <https://taqi.uz/>

USE OF THERMAL PROTECTION MATERIALS IN THE CONSTRUCTION OF ENERGY EFFICIENT. BUILDINGS

T.T. Shakirov B.A. Tursunov A.Z. Odiljanov

Spanish international scientific online conference PROSPECTS AND MAIN TRANDS IN MODERN SCIENCE Part 1

STUDY OF THE EFFECT OF SUPERPLASTICIZER ON THE PROPERTIES OF LIGHTWEIGHT CONCRETE WITH PORE FILLER

T.T. Shakirov A.Z. Odiljanov

FRANCE international scientific-online conference: "SCIENTIFIC APPROACH TO THE MODERN EDUCATION SYSTEM"

Problems of development of production of building materials, products and structures based on energy-saving and local raw materials

Shakirov T.T., Rakhimov Sh. T.

Collection of articles of the Republican scientific-practical conference
DOI: <http://taqi.uz/ru/>

Improving the properties of lightweight concrete with the help of mineral additives

Shakirov T.T. Muminova N.A.

Ministry of Construction of the Republic of Uzbekistan Association
"Uzpromstroymaterialy "Tashkent Institute of Architecture and Construction"
INNOVATIVE BUILDING MATERIALS, PRODUCTS AND STRUCTURES»
DOI: <http://taqi.uz/ru/>

Improving the properties of concrete with the help of active mineral additives

Shakirov T.T. Muminova N.A.

the Republican scientific-practical conference organized at the Tashkent Institute of Railway Engineers
DOI: https://uz.wikipedia.org/wiki/Toshkent_temir_yo%CA%BBI_muhandislari_instituti

To study the effect of mineral additives on the properties of Portland cement

Shakirov T.T. Muminova N.A.

Scientific article at the Republican scientific-practical conference on the problems and solutions to improve the integration of science, education and production in the production of modern building materials and products
DOI: <https://samgasi.uz/uz/pages/show/qurilish-materiallar-ishlab-chiqarish>

Teaching

Raw materials base of construction resources <i>Magistr</i>	2016-2024
Innovative technologies in the building materials industry <i>Magistr</i>	2021
Materials Science and material technology <i>Magistr</i>	2017
Innovative technologies in the building materials industry	2018-2019

Bakalavr

Finishing and thermal insulation materials 2013
Bakalavr

PhD Supervision

Khasanov B.B. 2021
Features of technology and properties of lightweight concrete based on porous aggregate from coal mining waste for enclosing structures.

Muminova N.A 2023
Porous aggregate using coal mining waste and lightweight concrete based on it.

Usmanova D.A. 2024
Influence of superplasticizer Concrete Strong 17 on concrete properties

Bozorboyev M.M. 2026
Development of the composition and technology of a new generation of ultra-lightweights based on industrial and man-made waste

Odiljonov A.Z. - Present
Study of the Physical and Mechanical Properties of Lightweight Concretes Based on Porous Aggregate Obtained from Clay Waste of Coal Mines

Umarov X.A. - Present
To study the effect of the chemical additive HYPER POLYMIX 405 on slowing down and increasing the hardening period of heavy concrete

International Activity

1. "Problems of development of production of building materials, products and structures based on energy-saving and local raw materials" 2018
TIACE, O'zbekiston

2. Collection of proceedings of the 3rd scientific and practical seminar with the participation of foreign specialists. "Innovative building materials, products and structures" 2019
TIACE, O'zbekiston

3. "Materials of the international symposium "Innovative technologies in the production of construction materials and constructions" 2020
TIACE, O'zbekiston

1. "International journal for advanced researchs in science & technology" 2023
International editorial advisory board. ISSN 2319 – 1783 (Print) ISSN 2320 – 1126, India

Professional Membership

Scientific and Technical Council on
"Architecture, Construction, Design and Urban
Planning" of the Ministry of Innovation
Development of the Republic of Uzbekistan
member

2023 - Present