

INNOVATION SCIENCE AND TECHNOLOGY



Scopus || Electronic journal specializing in Scopus

ISSUE 1



Acceptance of papers **January, 2026**



Acceptance of papers

Published monthly



Topics

economics, technology, social sciences

Editorial board:



EDITOR-IN-CHIEF:

Mirzaliyev Sanjar Makhmatjon ugli

DEPUTY EDITOR-IN-CHIEF:

Makhmudov Nosir Makhmudovich
DSc., Prof., Academician

DEPUTY EDITOR-IN-CHIEF:

Ochilov Bobur Bakhtiyor ugli – Senior
lecturer at TSUI

THE SCIENTIFIC-POPULAR ELECTRONIC
JOURNAL **"INNOVATION SCIENCE AND
TECHNOLOGY"** HAS BEEN REGISTERED
UNDER THE NUMBER **C-5669633** BY THE
AGENCY FOR INFORMATION AND MASS
COMMUNICATIONS (AOKA) OF THE
REPUBLIC OF UZBEKISTAN, EFFECTIVE
FROM OCTOBER 9, 2024.

CONTACTS

Phone: **+998 50 737 87 88**

Website: <https://ist-journal.uz>

Email: innovationist2025@gmail.com

The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.



Sharipov Kongiratbay Avezimbetovich,
Doctor of Technical Sciences (DSc), Professor



Abdurakhmanova Gulnora Kalandarovna, Doctor of
Economic Sciences (DSc), Professor



Cham Tat Huei,
Doctor of Philosophy (PhD), Professor (Malaysia)



Muhammad Imran Sadiq
Doctor of Philosophy in Economics (PhD), Professor,
Malaysia



Ahmed Aziz Ismail
Doctor of Technical Sciences (DSc),
Professor (Egypt)



Lee Chin
Doctor of Philosophy in Economics (PhD), (Malaysia)



Asongu SImplice
Doctor of Philosophy in Economics (PhD), Cameroon



Rui Dang
Doctor of Chemistry (DSc), Professor, China



Zahoor Ahmed
Doctor of Philosophy in Economics (PhD), Turkey



Shujaat Abbas
Doctor of Philosophy in Economics (PhD), Russia



Tina A Coffelt
Doctor of Philosophy in Educational Sciences (PhD),
USA



Abdikarimova Dinara Rustamxanovna
Doctor of Economic Sciences (DSc), Professor

Kurbonbekova Mohichehra Turobjonovna
Doctor of Economic Sciences (DSc), Professor

Alimardonov Ilkhom Muzrabshokovich
Doctor of Economic Sciences (DSc), Professor



Razakova Barno Sayfiyevna
Doctor of Philosophy in Economics (PhD)



Khasanov Sarvar Ulugbek ugli
Doctor of Philosophy in Economics (PhD)



Kholikova Rukhsora Sanjarovna
Associate Professor (PhD)

CONTENTS

BRIEF FEEDBACK ON “AGAT CREDIT” MICROFINANCE ORGANIZATION BASED ON THE REPORT OF “KAPDEPO” INVESTMENT COMPANY: CAVEATS FOR LENDERS (BONDHOLDERS)	16
Abduganiev Abdulaziz Alisher ugli	
IMPLEMENTATION OF EU BEST AGRICULTURAL TRADE PRACTICES IN UZBEKISTAN.....	20
Khulkar Karimova Rakhmanali qizi	
THE ROLE OF FOREIGN DIRECT INVESTMENT IN INCREASING SERVICE EXPORTS OF UZBEKISTAN	26
Jamshid Mirzakhmedov	
THE ROLE AND IMPORTANCE OF FINANCIAL MARKETS IN ECONOMIC DEVELOPMENT	30
Baymanova Mavlyuda Djuraevna, Abdullaeva Shohista, Ubaydullaeva Gulchehra Erkabaevna	
КЛИНИЧЕСКАЯ ОЦЕНКА СОСТОЯНИЯ МЕСТНЫХ ИММУННЫХ МЕХАНИЗМОВ ПОЛОСТИ РТА У ПАЦИЕНТОВ НА ЭТАПАХ ОРТОДОНТИЧЕСКОГО ЛЕЧЕНИЯ	36
Рахимбердыев Рустам Абдунасирович, Сайфулаева Азиза Анваровна	
INTEGRATING AI-BASED CUSTOMER ANALYTICS INTO INNOVATIVE RETAIL MARKETING STRATEGIES	40
Ostonaqulova Gulsaraxon Muhammadyoqub qizi	
FINANCIAL STIMULATION OF INNOVATIVE ACTIVITIES OF ENTERPRISES THROUGH INVESTMENTS	48
Bahriddinov Nodirbek Zamirdinovich	
DIGITAL DENTISTRY: LITERATURE REVIEW	52
Tursunov Begzod Sherzodovich, Zokirova Nodira Sobitovna	
THE LATEST ADHESIVE TECHNOLOGIES IN DENTISTRY	56
Rahimberdiyev Rustam Abdunasirovich, Chinibayeva Ibagul Sarsenbayevna	
ENSURING THE ACCEPTABILITY OF QUANTITATIVE AND QUALITATIVE INDICATORS IN THE EFFECTIVE ORGANIZATION OF HOUSING FUNDS IN KHOREZM	61
Otajonov Tohirjon Khojanazar o'g'li	
WAYS TO IMPROVE CUSTOMS ADMINISTRATION IN THE REPUBLIC OF UZBEKISTAN.....	67
Usmonova Dilfuza Ilhomovna	
CLINICAL ASSESSMENT OF THE STATE OF LOCAL IMMUNE MECHANISMS OF THE ORAL CAVITY IN PATIENTS AT DIFFERENT STAGES OF ORTHODONTIC TREATMENT	72
Rakhimberdiyev Rustam Abdunasirovich, Saifulaeva Aziza Anvarovna	
IMPROVING THE ALGORITHM FOR CONTROLLING THE CUSTOMS TRANSIT INFORMATION SYSTEM E-TRANSIT OF THE REPUBLIC OF UZBEKISTAN	76
Musayeva Shoirazimovna	
DEVELOPMENT TRENDS OF THE AUTOMOTIVE BUSINESS IN UZBEKISTAN	82
Saidov Dilshodbek Razzakovich	
INTEGRATION OF MARKETING STRATEGIES IN RETAIL TRADE ACTIVITIES.....	87
Akramov Toxir Abdiraxmanovich	
CHALLENGES OF ADOPTING ISLAMIC FINANCE WITHIN CONVENTIONAL BANKING SYSTEMS	91
Safarov Shuhrat Ismatovich	
CRM SYSTEMS AND THEIR IMPACT ON THE RESULTS OF MARKETING STRATEGY IN DISTRIBUTION COMPANIES	95
Jamoliddinov Fakhriyor Shodiyor o'g'li	
LEXICAL-SEMANTIC ARCHITECTURE OF MODERN WORDNET SYSTEMS	101
Aynura Axmedova	
METHODOLOGY FOR ANALYZING THE EFFECTIVENESS OF INNOVATIVE PROCESSES AT ENTERPRISES.....	108
Kurbanova Shakhnoza Yuldashbayevna	
COMPANY VALUATION IN MERGERS AND ACQUISITIONS: A STRATEGIC AND GOVERNANCE-BASED APPROACH	113
Lee Illarion Georgievich	

A REVIEW OF THE LITERATURE ON CAD/CAM TECHNOLOGIES IN DENTAL ECTOPROSTHETICS.....	118
Tursunov Begzod Sherzodovich, Hazratqulov Asrbek Ulugbek ugli	
TRENDS AND DIFFICULTIES IN THE INTEGRATION OF DIGITAL TECHNOLOGIES IN ORTHOPEDIC DENTISTRY.....	123
Khojimurodov Burkxon Ravshanovich	
PRIORITY DIRECTIONS FOR IMPROVING THE MECHANISM OF ENHANCING THE ECONOMIC SECURITY LEVEL OF THE KASHKADARYA REGION.....	127
Tuyev Abdurahmon Yusubopvich	
THE ROLE OF PSYCHOPHYSIOLOGICAL TRAINING OF DRIVERS IN REDUCING ROAD TRAFFIC ACCIDENTS.....	132
Uralbayev Anvar Ubaydullayevich	
THE ROLE OF SUSTAINABLE DEVELOPMENT PRINCIPLES IN DEVELOPING GREEN MARKETING STRATEGIES FOR ENTERPRISES.....	135
Sapayev Akhmad Durdibayevich	
MANAGEMENT MODEL OF INFORMATION RESOURCES IN SMALL BUSINESS ENTITIES AND ITS IMPACT ON ECONOMIC EFFICIENCY.....	140
Yo'ldoshev Nodirbek Ne'matjon o'g'li	
WAYS TO DEVELOP THE INVESTMENT ACTIVITY OF COMMERCIAL BANKS THROUGH THE SECURITIES MARKET.....	145
Yuldashev Fozil Turapovich	
INTERNATIONAL EXPERIENCE IN THE USE OF CROSS-BORDER REMITTANCES IN THE DEVELOPMENT OF THE NATIONAL ECONOMY.....	152
Gimranova O. B.	
FREE ECONOMIC ZONES AND FOREIGN INVESTMENT.....	158
Sheraliyeva Saida Azatovna	
ISSUES OF FORMATION AND MANAGEMENT OF PRODUCT ASSORTMENT IN RETAIL ENTERPRISES.....	162
Safarov Baxtiyor Djurakulovich	
STATE SUPPORT IN THE REPUBLIC OF UZBEKISTAN FOR ORGANIZING SHORT-TERM SCIENTIFIC INTERNSHIPS OF YOUNG SCIENTISTS ABROAD.....	167
Kabashev Tairjon	
LEGAL FOUNDATIONS OF DIVIDEND POLICY: EVIDENCE FROM DEVELOPED AND DEVELOPING COUNTRIES.....	172
Eshev Furqat A'zamovich	
IMPROVING SMART CITY GOVERNANCE BASED ON DIGITAL PLATFORMS: A HUMAN-CENTERED APPROACH.....	176
Rakhimova Madina Shukhrat qizi	
THE INVESTMENT CLIMATE AND ITS IMPACT ON THE DEVELOPMENT OF FOREIGN TRADE: A CASE STUDY OF UZBEKISTAN.....	182
Mirzamukhamedova Shakhzoda Akmaljon qizi	
CONSUMER CREDITS IN USA.....	187
Zunnunova Xulkar Muxtorovna	
INSTITUTIONAL BASES AND FUNCTIONAL MECHANISMS OF CONTROLLING IN THE EFFECTIVE MANAGEMENT OF THE RAILWAY TRANSPORT SYSTEM.....	194
Kayumov Zafarbek Odil ugli	
ANALYSIS OF CUSTOMER RELATIONSHIP MANAGEMENT PROCESSES AND PROBLEMS IN SERVICE ENTERPRISES.....	199
Ismailova Ma'mura Eldorovna	
PROBLEMS FACED BY COMMERCIAL BANKS IN BANK RISK MANAGEMENT AND WAYS TO ADDRESS THEM.....	205
Qayimova Ismigul Ilhom qizi, Tuxsanov Eldor Dilmurod o'g'li	

DESIGN OF ENGINEERING STRUCTURES AND CONSTRUCTION OF A REGIONALLY BRANCHED HIGHWAY COMPLEX.....	209
Yakubov Maqsadkhon Sultaniyazovich, Norinov Muhammadyunus Usibjonovich, Zikraev Akmaljon Alimovich	
THE ROLE OF COOPERATIVE RELATIONS IN THE SUSTAINABLE DEVELOPMENT OF THE REGIONAL TOURISM MARKET	216
Mirzabayev Jamshid Irkinovich	
THE ROLE OF FREE ECONOMIC ZONES IN IMPROVING THE INVESTMENT CLIMATE OF THE KHOREZM REGION.....	221
Masharipov Sardorbek Farxadovich	
ANALYSIS OF ORGANIZATIONAL AND ECONOMIC INDICATORS OF INNOVATIVE POTENTIAL MANAGEMENT IN TEXTILE INDUSTRY ENTERPRISES	228
Khosilov Shavkat Bekmurodovich	
MAIN WAYS TO DEVELOP INTEREST RATE RISK MANAGEMENT PRACTICES IN COMMERCIAL BANKS OF UZBEKISTAN	234
Seytnazarov Daniyar Baxadirovich	
THEORETICAL AND METHODOLOGICAL ASPECTS OF ESG STRATEGY IMPLEMENTATION.....	239
Xusenova Mexrangiz	
ADVANTAGES OF USING TRADITIONAL CONSTRUCTION MATERIALS IN THE CONSTRUCTION OF LOW-RISE RESIDENTIAL BUILDINGS.....	244
Otabek Hakimovich Toshniyozov	

ADVANTAGES OF USING TRADITIONAL CONSTRUCTION MATERIALS IN THE CONSTRUCTION OF LOW-RISE RESIDENTIAL BUILDINGS

Otabek Hakimovich Toshniyozov

Lecturer, Department of Exact Sciences

University of Business and Science, Tashkent Branch

E-mail: arxitektorotabek@mail.ru

Abstract: This article examines the importance of the rational use of traditional building materials in the construction of modern low-rise residential buildings in various regions and cities of the country. These materials, inherited from ancestors, have proven their effectiveness in practice and remain relevant to contemporary construction requirements. The study also focuses on issues of environmental sustainability, a return to natural materials, and the preservation of local architectural and construction traditions.

Key words: residential buildings, traditional construction, natural stone, fired brick, clay plaster, wooden beams, reed, local building materials.

Annotatsiya: Ushbu maqolada mamlakatimizning turli viloyat va shaharlarida zamonaviy kam qavatli turar-joy binolarini barpo etish jarayonida ota-bobolarimizdan meros bo'lib kelayotgan va o'z samaradorligini amalda isbotlagan an'anaviy qurilish ashyolaridan oqilona foydalanish zarurligi ilmiy jihatdan yoritilgan. Shuningdek, qurilish sohasida ekologik barqarorlikni ta'minlash, tabiiylikka qaytish hamda mahalliy qurilish an'analarini saqlab qolish masalalari tahlil qilingan.

Kalit so'zlar: turar-joy, an'anaviy qurilish, tabiiy tosh, pishgan g'isht, loy suvoq, yog'och to'sin, qamish, mahalliy qurilish materiallari.

Аннотация: В статье рассматривается необходимость рационального использования традиционных строительных материалов при возведении современных малоэтажных жилых зданий в различных регионах и городах страны. Подчеркивается, что данные материалы, унаследованные от предков, на практике доказали свою эффективность и соответствие современным требованиям строительства. Особое внимание уделяется вопросам экологической устойчивости, возвращения к натуральным материалам и сохранения национальных строительных традиций.

Ключевые слова: жилищное строительство, традиции, природный камень, обожжённый кирпич, глиняная штукатурка, деревянные балки, камыш, местные строительные материалы.

INTRODUCTION

Since ancient times, the history of world civilization has been directly connected with the development of architecture. Human architectural activity represents a continuous process of development from the period of primitive communal society to the present day. Residential construction, in particular, has a very long history on Earth. From the moment of human emergence, people built dwellings to protect themselves from external environmental influences such as enemies, predatory animals, cold, and heat. At the same time, housing has served as a fundamental factor providing conditions for rest and work.

Over time, the purpose and functions of housing have evolved and expanded. Residential architecture has continuously adapted to the social conditions of society, the spirit of the era, and various external circumstances. From simple huts or caves, housing has gradually transformed into modern residential buildings of our time, becoming fully developed structures equipped with contemporary facilities and amenities.

LITERATURE REVIEW

Research on traditional construction materials in Uzbekistan has long emphasized their architectural, functional, and environmental value. The journal *Uzbek Architecture and Construction* Issue No. 5 of 2009 highlights that traditional materials such as fired brick, clay plaster, wood, and reed have historically been well adapted to local climatic conditions, ensuring thermal comfort and durability in residential buildings. These materials are shown to reduce excessive energy consumption while maintaining structural reliability in low-rise housing.

Ubaydullaev H. M. and Inogomova M. M., in their work *Typological Foundations of Designing Residential and Public Buildings* published in Tashkent in 2009, provide a detailed typological analysis of housing forms developed in Central Asia. Their research demonstrates that traditional construction systems evolved as rational responses to social structure, climate, and available natural resources. The authors underline that low-rise residential buildings constructed with traditional materials ensure better microclimatic balance and long-term sustainability compared to many modern industrial materials.

Later educational works such as *Design of Residential and Public Buildings* by Qodirova S. A. and Abdujabbarova M. T., published in 2020, as well as Abdujabbarova's *Design of Residential Buildings* from 2015, further reinforce the relevance of traditional materials in contemporary practice. These studies, together with Hidirov Muhsin's *History of Architecture* published in 2004, confirm that traditional construction materials are not only part of cultural heritage but also remain economically efficient, environmentally safe, and beneficial for human health when applied to modern low-rise residential construction.

RESEARCH METHODOLOGY

This tradition, which has been formed over centuries, is known today to manifest itself in different forms across various parts of the world. Throughout the Muslim regions, residential building types have developed in distinctive ways depending on climatic conditions. Residential houses in the settlements of Uzbekistan are also part of this tradition. Since climatic conditions vary across all regions of the republic, different schools of residential design and construction have emerged.

However, based on our traditions, this study focuses on examining their common and similar characteristics. For example, low-rise individual residential houses currently being constructed in the Tashkent region are built in diverse ways. These variations are compared in this study, with particular attention paid to the advantages and disadvantages of modern and traditional construction materials.

ANALYSIS AND RESULTS

At present, due to the increasing demand for housing, the number of builders using modern construction materials in the construction of low-rise residential buildings, similar to multi-storey housing, has significantly increased. This leads to higher construction costs and increased energy consumption. However, it also accelerates the construction process and contributes to a more visually appealing appearance.

Nevertheless, we believe that in the construction of individual low-rise residential buildings, greater attention should be paid to traditional construction materials. It is advisable to use straw-reinforced clay plaster. Construction with fired brick is preferable. Wooden beams should be used, and reed should be laid and finished with loam. In this case, construction becomes more affordable, while the interior remains cool in summer and warm in winter (Figure 1). Houses built with natural construction materials also demonstrate better air permeability. The primary purpose of housing construction is to create a comfortable environment for rest and work, as well as to ensure a healthy lifestyle for residents.

Our conclusions are based on direct observations, as we have witnessed cases where plaster detached from houses built with foam blocks. We also observed that such houses tend to be hot in summer and cold in winter. This has a negative impact on human health, increases energy consumption, and leads to higher expenses.

Our observations further revealed that many builders fill the interior of foundations with soil and finish the floor with concrete screed. This practice is considered incorrect because soil absorbs ground moisture, while concrete screed further draws this moisture to the surface. Such conditions are harmful to human health. Instead, the interior of the foundation should be filled with large natural stones and finished with a dense clay plaster. Since parquet or laminate flooring is usually laid on top, this solution proves to be highly beneficial for health. Natural stones do not absorb moisture due to their density and hardness, while clay plaster provides thermal insulation.

Additional observations show that many builders construct the walls of low-rise residential buildings using modern foam blocks, gas blocks, and even slag blocks, which is a serious mistake. Such materials tend to

retain cold in winter and heat in summer. Fired brick, on the contrary, demonstrates opposite properties. When laying bricks, it is not mandatory to use concrete mortar; using clay mortar is both more affordable and faster. Similarly, using clay plaster for wall finishing is recommended. Clay is inexpensive, provides good thermal insulation against both heat and cold, and ensures proper air exchange within the house.

Covering houses with monolithic slabs or panels may be fast and durable, but it is not an effective solution in terms of thermal performance. In contrast, roofing based on wooden beams and rafters, combined with reed layers and loam finishing, provides excellent results for both heat and cold protection (Figure 2) and is also cost-effective.

In recent times, the use of modern metal roofing sheets has become widespread. Such materials serve little purpose beyond enhancing the building's appearance. They retain heat in summer and cold in winter, shorten the lifespan of wooden structural elements, and are costly. As an alternative, the use of slate roofing is more economical, durable, and resistant to both heat and cold (Figure 1). Especially today, when the use of roofs as attic or mansard spaces has become common, slate-covered roofs are much easier to heat and cool. Such construction materials are safe for human health and are considered environmentally friendly.

CONCLUSION AND RECOMMENDATIONS

In conclusion, compared to modern construction materials, traditional building materials are more advantageous both in terms of affordability and their positive impact on human health. Taking these factors into account, we recommend the use of traditional construction materials that have been tested and proven through many years of practical experience in the construction of low-rise residential buildings.

References

1. «Ўзбекистон архитектураси ва қурилиши», № 5, 2009.
2. Убайдуллаев Ҳ. М., Иноғомова М. М. Турар-жой ва жамоат биноларини лойиҳалашнинг типологик асослари. — Тошкент: «Ворис-нашриёт», 2009.
3. Турар-жой ва жамоат биноларини лойиҳалаш. Дарслик. — Тошкент, 2020. Муаллифлар: Қодирова С. А., Абдуҷаббарова М. Т.
4. Абдуҷаббарова М. Т. Турар-жой биноларини лойиҳалаш. Ўқув қўлланма. — Тошкент, 2015.
5. Ҳидиров Муҳсин. Архитектура тарихи. — Тошкент: Ғофур Ғулом номидаги нашриёт-матбаа ижодий уйи, 2004.

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 1

© When materials are reproduced, the INNOVATION SCIENCE AND TECHNOLOGY journal must be cited as the source. Authors are responsible for the accuracy of the information in materials and advertisements published in the journal. Editorial opinions may not always align with those of the authors. Submitted materials will not be returned to the editorial office.

To publish articles in this journal, you may submit articles, advertisements, stories, and other creative materials through the following links. Materials and advertisements are published on a paid basis.

You may subscribe to the journal at any time using the following details. Once subscribed, please send a screenshot or photo of your payment confirmation to our Telegram page @iqtisodiyot_77. Based on this, we will send the latest issue of the journal to your address each month.

“The journal “INNOVATION SCIENCE AND TECHNOLOGY” has been registered by the Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan from 09.10.2024 under the registration number №390637. License number: C-5669633. PNFL: 30407832680027

Our address: Tashkent city, Yunusobod district, 19th block,
House 17.




Acceptance of articles
Published every
monthly


Directions
Social, economic, political,
technological, scientific

 **Scopus || Scientific electronic journal specializing in Scopus**

CERTIFICATE NUMBER: №390637

**ORDER NUMBER ACCORDING TO
THE LICENSE REGISTER: C-5669633**

CONTACT:

 Contact us
+998 50 737 87 88

 Telegram channel
t.me/scopus_IST2100

 Journal official website
<https://ist-journal.uz/index.php/IST>