WEB OF SYNERGY:
International Interdisciplinary Research Journal
Volume 2 Issue 3, Year 2023 ISSN: 2835-3013
https://univerpubl.com/index.php/synergy

Influence of Distribution of Thermodynamic Parameters on Energy Efficiency in Heat Devices

Toychieva Mahliyo Obidkhan qizi
Ph.D. (NamMQI)

Article Information

Received: January 21, 2022
Accepted: February 22, 2023
Published: March 23, 2023

Keywords: *converting, thermodynamic, heliothermic, method, operating*

ABSTRACT

Thermal power plants (HPS) play an important role in the electric energy of the world and our country, but their efficiency is relatively low (up to 45%) even in the most modern devices.

Nevertheless, the method of converting thermal energy first into mechanical energy, then into electrical energy, i.e. thermal power plants, is still leading in the production of electricity, and it is expected to remain so in the next few decades [1]. In recent years, the use of hybrid technologies in increasing the efficiency of thermal power plants (for example, combining the heat energy of heliotechnical devices directly with the technological devices of thermal power plants) gives good results from the technical and economic point of view. Based on the above, in this article, the characteristics of anisotropy of thermodynamic parameters (pressure and temperature) in the process of convection heat exchange in devices operating on natural gas fuel are studied. Because it is precisely the change in pressure and temperature that causes convective processes during the combustion process and the transfer of heat to the working environment. In hybrid thermal power plants, it is assumed to transfer the working air stream heated by heliothermic method to the combustion chamber in an active or passive form, or to use the hot air stream from the technological devices, and this raises the issue of researching the thermodynamic parameters of the gaseous environment and its management. These issues are mainly assessed by the thermal conductivity and conductivity properties of the medium. In this case, the pressure and temperature of the working environment play an important role in the energy efficiency of the hybrid technology. In classical thermodynamics, the heat transfer process is theoretically considered as the amount of heat transferred from one isothermal surface to another isothermal surface, and this amount depends on the surfaces of heat exchange and the temperature difference. The amount of heat transferred is expressed by Fourier's law [2]

q = - l degree T (1)

where λ is the heat transfer coefficient, which for its constant value is the amount of heat that passed from the thickness DL through the surface S during the time interval Dt (2)

It can be seen from the equation (2) that the accuracy of the λ-coefficient plays a key role in the calculation of the heat transfer process. In the second place, it is important how to choose the thickness of the layer from which the temperature gradients are obtained. Determining the temperature in these layers and the surface through which the current passes is not a problem if the temperature isotropic dimension is known. But the dynamics of the parameter λ and the characteristic dimensions of the temperature gradient in different directions in relation to the heat flow are very complex and are determined by the characteristics of pressure and temperature in specific conditions and the types of heat exchange processes (free convection, forced flow, radiation, etc.). Based on this, experimental determination of the λ parameter and temperature isotropic dimensions in the heat transfer (heat transfer and vice versa) thermal insulation issues has an important practical feature.

In the experiment, the dimensions of pressure and temperature homogeneity in the turbulent flow created in the heated air environment were studied using the wavefront distortions of the optical beam with a flat front passing through this environment. The air layer is 1 m long and 12 cm in diameter, and a convective flow is generated through a glass pipe with an electric heater inside. As a result of a laser beam beam with a flat front passing through the studied air layer and coherently combining it with the second beam (Michelson interferometer), an interference pattern (speckle pattern) randomly changing with time in the plane perpendicular to the direction of propagation of the beam is formed.

The mechanism of formation of random speckle scenes is shown in Fig. 1b. The wavefront of the laser beam is initially flat and is subjected to random fluctuations in pressure and temperature after passing through a heated and continuously convective medium (inside the tube). Such fluctuations are called turbulence in atmospheric optics, whose characteristic dimensions R(T,R) are random and turn the direction of propagation of the beam to random angles (beams 1 and 11 in Fig. 1b). If the medium were quiet, the beam would propagate along a straight line (beam 2 in Figure 1b), and its wavefront would be flat.

It is possible to study the distribution of speckles on the cross-section of the beam by photographing the resulting scene. The characteristic sizes of the speckles provide information about changes in temperature and pressure, depending on the homogeneity of the optical refractive index of the medium

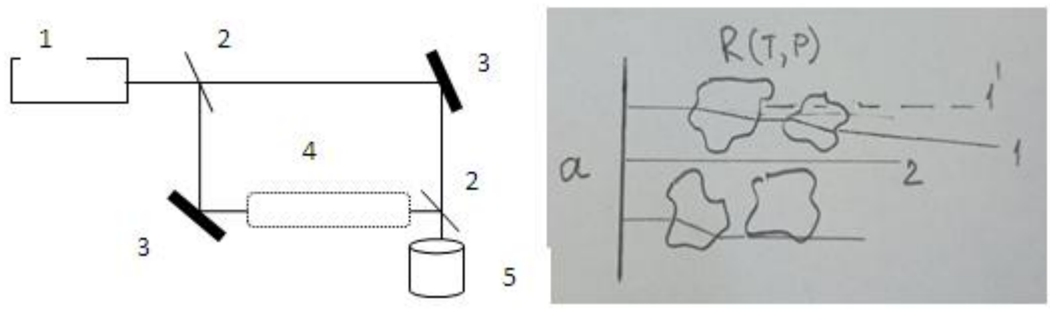

Fig. 1-a. Experiment scheme: 1-laser and optical collimator, 2-semi-transparent mirrors, 3-reflecting mirrors, 4-heated glass tube, 5-camera lens. Figure 1b. Mechanism of formation of speckle structures.

The results show that the characteristic mean sizes of the recorded speckle patterns increase with increasing temperature. In turn, in order to determine the influence of weight and Archimedean forces on the convection processes, as well as on the isotropic dimensions of pressure and temperature, experiments were conducted for points located in the horizontal and vertical points of the glass tube. But the characteristic dimensions of speckle images were recorded in these halls at the level of statistical errors. In our opinion, the turbulence indicator of the atmosphere should be stronger to spread this light. For this, it is necessary to create a strongly heated and forced flow environment.

In short, it is possible to study the thermodynamic parameters of the environment by recording the distortion of the wavefronts of optical rays. To determine quantitative relationships, it is necessary to measure the time and spatial distribution of the light intensity level in the speckle image. Also, since the characteristic dimensions of the homogeneity of the ambient temperature and pressure are very small, theoretical considerations and boundary conditions for the turbulent flow of gases in this process are not appropriate here.

REFERENCES:

1. Тўйчиева, М. (2022). МЕТОДЫ И СРЕДСТВА КОНТРОЛЯ ПОКАЗАТЕЛЕЙ КАЧЕСТВА ЭЛЕКТРИЧЕСКОЙ ЭНЕРГИИ. PEDAGOGS jurnali, 6(1), 429-433.
2. Kizi, T. M. O. (2021). Aluminum Oxychloride For Coagulation More Effective Coagulant For Water Purification. The American Journal of Interdisciplinary Innovations Research, 3(05), 192-201.
3. Туляганова, В. С., Абдуллаева, Р. И., Туйчиева, М. О., Умирова, Н. О., & Аззамова, Ш. А. (2021). ПЕТРОГРАФИЧЕСКОЕ И РЕНТГЕНОГРАФИЧЕСКОЕ ИССЛЕДОВАНИЯ КЕРАМИЧЕСКИХ КОМПОЗИЦИЙ НА ОСНОВЕ МЕСТНОГО СЫРЬЯ. Universum: технические науки, (8-2), 79-83.
4. Туляганова, В. С., Абдуллаева, Р. И., Негматов, С. С., Туйчиева, М. О. К., Шарипов, Ф. Ф., & Валиева, Г. Ф. (2021). Исследование процесса спекаемости электрокерамических композиций. Universum: технические науки, (10-4 (91)), 43-46.
5. Тўйчиева, М. О., Солиев, Р. Х., Кахарова, М. А., & Маннонов, Ж. А. (2022). СТЕАТИТЛИ ЭЛЕКТРОКЕРАМИКА МАТЕРИАЛЛАРИНИ ОЛИШ УЧУН МАҲАЛЛИЙ ХОМАШЁЛАРИНИНГ КИМЁВИЙ ВА МИНЕРАЛОГИК ТАРКИБИ ВА ХОССАЛАРИНИ ЎРГАНИШ. *Academic research in educational sciences*, *3*(4), 45-50.
6. Туляганова, В. С., Абдуллаева, Р. И., Туйчиева, М. О., Умирова, Н. О., & Аззамова, Ш. А. (2021). Разработка и исследование керамико-технологических и диэлектрических свойств композиционных электрокерамических материалов. Universum: технические науки, (8-2), 84-88.
7. Toychiyeva, M. O. (2022). Development of Effective Compositions and Studies of the Properties of Magnesium-Steatite Electro ceramic Composite Materials Based on Local Raw Materials. Telematique, 7799-7806.
8. Qizi, T. M. O. (2023). GIDROELEKTR STANSIYALARNING ISHLASH PRINSPI. Ta'lim fidoyilari, 21, 97-101.
9. Toychiyeva, M. O. (2022). Development of Effective Compositions and Studies of the Properties of Magnesium-Steatite Electro ceramic Composite Materials Based on Local Raw Materials. Telematique, 7799-7806.
10. Qizi, T. M. O. (2023). GIDROELEKTR STANSIYALARNING ISHLASH PRINSPI. Ta'lim fidoyilari, 21, 97-101.
11. Toychiyeva, M. (2023). EDIBON SCADA EESFC QURILMASI ORQALI QUYOSH PANELLARINI VOLT AMPER XARAKTERISTIKASINI OLISH. Solution of social problems in management and economy, 2(1), 89-94.
12. Toychiyeva, M. (2023). КЛАСТЕР ЁНДАШУВИ АСОСИДА ПЕДАГОГИК ТАЪЛИМ СИФАТИНИ БОШҚАРИШ ВА РАҚОБАТБАРДОШЛИГИНИ ТАКОМИЛЛАШТИРИШ. Theoretical aspects in the formation of pedagogical sciences, 2(2), 196-203.

13. Umarjonovna, D. D. (2023). Noorganik Kimyo Fanini O'qitishda Pedagogik Texnologiyalar Va Fan Yangiliklaridan Samarali Foydalanishning Ahamiyati. Web of Synergy: International Interdisciplinary Research Journal, 2(1), 86-90.
14. Umarjonovna, D. D. (2023). Elekt Energetikasi Yo'nalishida Tahsil Oluvchi Talabalarga Ekologiya Fanining O'rni Va Ahamiyati. Web of Synergy: International Interdisciplinary Research Journal, 2(1), 77-81.
15. Бахриддинов, Н. С., Мамадалиев, Ш. М., & Джураева, Д. У. (2022). Современный Метод Защиты Озонового Слоя. *Central Asian Journal of Medical and Natural Science*, *3*(3), 1-4.
16. Baxriddinov, N., Mamadaliev, S., & Djuraeva, D. (2022). ОЛИЙ ТАЪЛИМ МУАССАСАЛАРИДА ЭКОЛОГИЯДАН ЎҚУВ МАШҒУЛОТЛАРИНИ ТАШКИЛ ЭТИШ. *Science and innovation*, *1*(B8), 10-15.
17. ATAMIRZAEVA, S., & JURAEVA, D. INTERFAOL IN THE ORGANIZATION OF THE SCIENCE OF ECOLOGY USING METHODS. *ЭКОНОМИКА*, 55-57.
18. Umarjonovna, D. D., & Gulomjonovna, Y. Y. (2022). CHALLENGES OF FOOD SECURITY. *Conferencea*, 505-507.
19. Отамирзаев, С. О. У., & Джураева, Д. У. (2022). АНАЛИЗ И ИСПОЛЬЗОВАНИЕ ИНТЕРАКТИВНЫХ МЕТОДОВ ПРИ ВЫПОЛНЕНИИ ЛАБОРАТОРНЫХ РАБОТ ПО ХИМИИ. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(7), 760-765.
20. Джураева, Д. У., & Мамадалиев, Ш. (2022). ЗАЩИТА ОЗОНОВОГО СЛОЯ-ЗАДАЧА КАЖДОГО ЧЕЛОВЕКА. *Conferencea*, 29-31.
21. Mashrapov, Q., Yoqubjanova, Y., Djurayeva, D., & Xasanboyev, I. (2022). THE ROLE OF CREDIT-MODULE SYSTEM IN DEVELOPMENT OF STUDENTS'SPECIALTIES IN TECHNICAL HIGHER EDUCATION INSTITUTIONS. *Theoretical aspects in the formation of pedagogical sciences*, *1*(6), 332-336.
22. Уктамов, Д. А., & Джураева, Д. У. (2020). ПОЛУЧЕНИЕ МИКРОЭЛЕМЕНТСОДЕРЖАЩЕГО НИТРОФОСА НА ОСНОВЕ ТЕРМОКОНЦЕНТРАТА И ВТОРИЧНОГО СЫРЬЯ ГИДРОМЕТАЛЛУРГИИ. *Universum: технические науки*, (12-4 (81)), 82-85.
23. Djurayeva, D., & Ikromova, M. (2022). KIMYO LABORATORIYALARIDA DARSLARNI TASHKIL QILISHDA INNOVATSION TEXNOLOGIYALARNI QO'LLASH. *Theoretical aspects in the formation of pedagogical sciences*, *1*(4), 52-55.
24. Джураева, Д., & Эргашходжаев, Ш. К. О. (2022). РОЛЬ ЗЕЛЕНЫХ РАСТЕНИЙ В ЗАЩИТЕ ОКРУЖАЮЩЕЙ СРЕДЫ. *Conferencea*, 62-63.
25. 13.Каххаров, А., & Джураева, Д. (2022). ЗНАЧЕНИЕ ХИМИИ В ПОДГОТОВКЕ КАДРОВ В ОБЛАСТИ СЕЛЬСКОГО ХОЗЯЙСТВА. *Theoretical aspects in the formation of pedagogical sciences*, *1*(6), 88-91.
26. Djurayeva, D. (2022). EKOLOGIYA VA ATROF MUHIT MUHOFAZASI YO'NALISHIDA TAHSIL OLUVCHI TALABALARGA EKOLOGIYA FANINING O'RNI VA AHAMIYATI. *Theoretical aspects in the formation of pedagogical sciences*, *1*(7), 124-128.
27. Djuraeva, D. (2010). ADDING THE CRIME OF INTERNATIONAL TERRORISM INTO THE STATUTE OF INTERNATIONAL CRIMINAL COURT: DEFINITION, BENEFITS TO JUSTICE AND OBSTACLES: дис. *Central European University*.

28. Джураева, Д. У., & Собиров, М. М. (2022, December). ТЕХНОЛОГИЯ ПОЛУЧЕНИЯ СУСПЕНДИРОВАННЫХ СЛОЖНЫХ УДОБРЕНИЙ С ИНСЕКТИЦИДНОЙ АКТИВНОСТЬЮ. In *Proceedings of International Educators Conference* (Vol. 3, pp. 175-190).
29. Umarjonovna, D. D., & Olimjon o'g'li, O. S. O'QUV MAQSADLARI IERARXIYASI TARTIBIDAGI DARSNING TA'LIM SAMARADORLIGIGA TA'SIRI.
30. ATAMIRZAEVA, S., & JURAEVA, D. INTERFAOL IN THE ORGANIZATION OF THE SCIENCE OF ECOLOGY USING METHODS. *ЭКОНОМИКА*, 55-57.
31. Turgunovna, A. S., Sadriddinovich, B. N., & Mahammadjanovich, S. M. (2021, April). Kinetics of Decomposition of Washed Roasted Phosphoconcentrate in Hydrochloric Acid. In *E-Conference Globe* (pp. 194-197).
32. Khoshimjon, Y. S., Turgunovna, A. S., & Umarjonovna, D. D. (2023). PREPARING THE POPULATION FOR PRACTICAL TRAINING ON CIVIL PROTECTION AND CONDUCTING IT. TRAINING THE POPULATION ON THE CONTENT OF POLITICAL-EDUCATIONAL ACTIVITIES AND PRACTICAL TRAINING CONDUCTED WITH THE UNITS OF CIVIL PROTECTION IN EMERGENCY SITUATIONS. *JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH*, *2*(15), 97-103.
33. Шарипов, Ф. Ф. (2019). Цифровое развитие международного бизнеса. In *Приоритетные и перспективные направления научно-технического развития Российской Федерации* (pp. 112-113).
34. Шарипов, Ф. Ф. (2019). Экосистема угольной промышленности Российской федерации. *Путеводитель предпринимателя*, (43), 185-189.
35. Отамирзаев, О. У., & Шарипов, Ф. Ф. (2017). Методика проведения лабораторных занятий с интерактивными методами. *Science Time*, (2 (38)), 270-273.
36. Даминов, А. А., Махмудов, Н. М., & Шарипов, Ф. Ф. (2016). ПРИМЕНЕНИЕ БЕСКОНТАКТНЫХ АППАРАТОВ И ЛОГИЧЕСКИХ ЭЛЕМЕНТОВ В СХЕМАХ УПРАВЛЕНИЯ ЭЛЕКТРОПРИВОДАМИ. *Science Time*, (11 (35)), 143-147.
37. Даминов, А. А., Атмирзаев, Т. У., Махмудов, Н. М., & Шарипов, Ф. Ф. (2017). ПЕРСПЕКТИВНЫЕ НАПРАВЛЕНИЯ АВТОМАТИЗИРОВАННОГО УПРАВЛЕНИЯ ПРОЦЕССА ПРОИЗВОДСТВА, ПЕРЕДАЧИ И ПОТРЕБЛЕНИЯ ЭЛЕКТРОЭНЕРГИИ. *Актуальные проблемы гуманитарных и естественных наук*, (2-3), 59-62.
38. Мамаджанов, А. Б., & Шарипов, Ф. Ф. (2016). Электр таъминоти тизимига энергия назорати ва хисоблашнинг автоматлаштирилган тизимларини жорий этишнинг самарадорлиги хакида. *International scientific journal*, (1 (1)), 76-79.
39. Махсудов, П. М., Давронова, М. У., Маннонов, Ж. А., & Умаров, Н. Ю. (2016). Вопросы подготовки будущего педагога профессионального образования к методической деятельности. *Высшая школа*, (5), 36-38.
40. Adashboyevich, M. Z. (2019). The role of innovation thinking in the formation of knowledge. *Вестник науки и образования*, (10-3 (64)), 70-72.
41. Mannonov, Z. A., & Mannonov, J. (2022). THE ROLE OF INNOVATION THINKING IN THE FORMATION OF KNOWLEDGE. *Theoretical aspects in the formation of pedagogical sciences*, *1*(6), 164-168.

42. Adashboyevich, M. J. (2019). PEDAGOGICAL AND PSYCHOLOGICAL BASIS OF FORMATION OF CREATIVE COMPETENCE IN INNOVATION PEDAGOGICAL ACTIVITY OF TEACHERS OF FUTURE PROFESSIONAL EDUCATION. *European Journal of Research and Reflection in Educational Sciences Vol*, *7*(10).
43. Adashboyevich, M. J., Qoviljanovich, I. S., Abduvali o'g'li, I. H., & Xabibullaevich, X. U. (2021). Modern Technology Of Surface Hardening Applied To Parts Of The Car. *NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal| NVEO*, 2673-2676.
44. Mannonov, J. A. (2019). Pedagogical and psychological basis of formation of creative competence in innovation pedagogical activity of teachers of future professional education. *European Journal of Research and Reflection in Educational Sciences//Great Britain//Progressive Academic Publishing*, *7*(10), 40-45.
45. Mannonov, J. A. (2019). Pedagogical activities with innovative measurement purpose movement in contract. *International Journal of Applied Research*.
46. Adashboevich, M. J., Qoviljanovich, I. S., & Fazlitdinovich, S. F. (2020). Collaborative Learning Based on an Innovative Approach. *International Journal of Progressive Sciences and Technologies*, *23*(2), 690-692.
47. Байбаева, М. Х., Химматалиев, Д. О., & Маннонов, Ж. А. (2021). Роль дидактических игр в учебно-воспитательном процессе. *В номере*, 25.
48. Маннонов, Ж. А., Имомназаров, С. К., Купайсинов, Д. Х. У., & Жамилов, Б. М. У. (2022). ТЕХНОЛОГИЧЕСКИЕ ПРОЦЕССЫ ФУНКЦИОНИРОВАНИЯ ПРОИЗВОДСТВЕННО-ТРАНСПОРТНОЙ СИСТЕМЫ И ВОПРОСЫ ИХ ЛОГИСТИЧЕСКОГО УПРАВЛЕНИЯ. *Universum: технические науки*, (6-3 (99)), 43-47.
49. Mannonov, J. (2018). INDIVIDUAL PROPERTIES FOR INDIVIDUAL EDUCATION. *Мировая наука*, (5), 64-66.
50. Mannonov, J. A. (2019). Bo'lajak o'qituvchilarning metodik kompetentligini rivojlantirish kasbiy tayyorgarlik darajalarini oshirish omili sifatida. TDPU ILMIY AXBOROTLARI. *Pedagogika*, *4*, 21.
51. Джураева, Д. У., & Собиров, М. М. (2022, December). ТЕХНОЛОГИЯ ПОЛУЧЕНИЯ СУСПЕНДИРОВАННЫХ СЛОЖНЫХ УДОБРЕНИЙ С ИНСЕКТИЦИДНОЙ АКТИВНОСТЬЮ. In *Proceedings of International Educators Conference* (Vol. 3, pp. 175-190).
52. Toychiyeva, M. O. (2022). Development of Effective Compositions and Studies of the Properties of Magnesium-Steatite Electro ceramic Composite Materials Based on Local Raw Materials. Telematique, 7799-7806.
53. Qizi, T. M. O. (2023). GIDROELEKTR STANSIYALARNING ISHLASH PRINSPI. Ta'lim fidoyilari, 21, 97-101.
54. Toychiyeva, M. (2023). EDIBON SCADA EESFC QURILMASI ORQALI QUYOSH PANELLARINI VOLT AMPER XARAKTERISTIKASINI OLISH. Solution of social problems in management and economy, 2(1), 89-94.
55. Toychiyeva, M. (2023). КЛАСТЕР ЁНДАШУВИ АСОСИДА ПЕДАГОГИК ТАЪЛИМ СИФАТИНИ БОШҚАРИШ ВА РАҚОБАТБАРДОШЛИГИНИ ТАКОМИЛЛАШТИРИШ. Theoretical aspects in the formation of pedagogical sciences, 2(2), 196-203.
56. Тўйчиева, М. (2022). МЕТОДЫ И СРЕДСТВА КОНТРОЛЯ ПОКАЗАТЕЛЕЙ КАЧЕСТВА ЭЛЕКТРИЧЕСКОЙ ЭНЕРГИИ. PEDAGOGS jurnali, 6(1), 429-433.

57. Kizi, T. M. O. (2021). Aluminum Oxychloride For Coagulation More Effective Coagulant For Water Purification. The American Journal of Interdisciplinary Innovations Research, 3(05), 192-201.
58. Туляганова, В. С., Абдуллаева, Р. И., Туйчиева, М. О., Умирова, Н. О., & Аззамова, Ш. А. (2021). ПЕТРОГРАФИЧЕСКОЕ И РЕНТГЕНОГРАФИЧЕСКОЕ ИССЛЕДОВАНИЯ КЕРАМИЧЕСКИХ КОМПОЗИЦИЙ НА ОСНОВЕ МЕСТНОГО СЫРЬЯ. Universum: технические науки, (8-2), 79-83.
59. Туляганова, В. С., Абдуллаева, Р. И., Негматов, С. С., Туйчиева, М. О. К., Шарипов, Ф. Ф., & Валиева, Г. Ф. (2021). Исследование процесса спекаемости электрокерамических композиций. Universum: технические науки, (10-4 (91)), 43-46.
60. Тўйчиева, М. О., Солиев, Р. Х., Кахарова, М. А., & Маннонов, Ж. А. (2022). СТЕАТИТЛИ ЭЛЕКТРОКЕРАМИКА МАТЕРИАЛЛАРИНИ ОЛИШ УЧУН МАҲАЛЛИЙ ХОМАШЁЛАРИНИНГ КИМЁВИЙ ВА МИНЕРАЛОГИК ТАРКИБИ ВА ХОССАЛАРИНИ ЎРГАНИШ. *Academic research in educational sciences*, *3*(4), 45-50.
61. Adashboyevich, M. J., Qoviljanovich, I. S., Abduvali o'g'li, I. H., & Xabibullaevich, X. U. (2021). Modern Technology Of Surface Hardening Applied To Parts Of The Car. NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal| NVEO, 2673-2676.
62. Mannonov.J., Imomnazarov S., Abduganiyev. Sh., Nishonov.F.,(2022). ELECTRONIC ENGINE MANAGEMENT DIAGNOSTIC SYSTEM SELF-PROPELLED NARROW-GAUGE POWER STATIONAND METHOD OF EXPERIMENTAL RESEARCHINTRODUCTION. International Journal of Early Childhood Special Education, (6-14),1929-1930.
63. Sarvar, I. (2021). Application of Intelligent Systems in Cars. International Journal of Innovative Analyses and Emerging Technology, 1(4), 78-80.
64. Sarvar, I., & Zokirxon, M. (2021). ROAD TRANSPORTATION ACCIDENTS WITH PARTICIPATION PEDESTRIANS. Universum: технические науки, (5-6 (86)), 62-65.
65. Sarvar, I., Abdujalil, P., Temurmalik, A., & Jahongir, K. (2021). OPERATING CONDITIONS OF TRUCKS AND THE SAFETY OF THE TRANSPORT PROCESS. Universum: технические науки, (6-5 (87)), 42-45.
66. Sarvar, I., Azizbek, N., Behzod, S., & Raxmatillo, R. (2021). RESEARCH OF ADHESION STRENGTH OF COMPOSITE EPOXY MATERIALS FILLED WITH MINERAL WASTE OF VARIOUS PRODUCTIONS. Universum: технические науки, (6-5 (87)), 33-35.
67. Бойдадаев,М.Б.У.,Мунаввархонов, З. Т. Ү.,Мадрахимов,А.М.,&Имомназаров, С. К. (2021). ГИПСОСОДЕРЖАЩИЕ МАТЕРИАЛЫ НА ОСНОВЕ МЕСТНОГО И ВТОРИЧНОГО СЫРЬЯ В УЗБЕКИСТАНЕ.Universum: технические науки,(3-2(84)),26-29.
68. Имомназаров, С. К., Абдуганиев, Ш. О., Рахимжонов, А. А., & Журабоев, Д. И. (2021). УЧАСТИЕ ОБЩЕСТВЕННОСТИ В ОБЕСПЕЧЕНИИ БЕЗОПАСНОСТИ ДВИЖЕНИЯ. Экономика и социум, (5-1), 939-942.
69. Имомназаров, С. К., Насриддинов, А. Ш., & Мунаввархонов, З. Т. (2021). ПРИМЕНЕНИЕ ИНТЕЛЛЕКТУАЛЬНЫХ СИСТЕМ В АВТОМОБИЛЯХ. Экономика и социум, (5-1), 933-938.
70. Полвонов, А. С., Насриддинов, А. Ш., & Имомназаров, С. К. (2021). СВОЙСТВА ЗВУКОПОГЛОЩАЮЩИХ МАТЕРИАЛОВ НА ПОЛИУРЕТАНОВОЙ ОСНОВЕ. Главный редактор: Ахметов Сайранбек Махсутович, д-р техн. наук; Заместитель главного редактора: Ахмеднабиев Расул Магомедович, канд. техн. наук;

Члены редакционной коллегии, 18.

71. Имомназаров С. К., Насриддинов А. Ш. КЛАССИФИКАЦИЯ ЭЛЕКТРОННЫХ СИСТЕМ УПРАВЛЕНИЯ ДВИГАТЕЛЕМ //Главный редактор: Ахметов Сайранбек Махсутович, д-р техн. наук; Заместитель главного редактора: Ахмеднабиев Расул Магомедович, канд. техн. наук; Члены редакционной коллегии. – 2022. – С. 34.
72. Маннонов Ж. А. и др. ТЕХНОЛОГИЧЕСКИЕ ПРОЦЕССЫ ФУНКЦИОНИРОВАНИЯ ПРОИЗВОДСТВЕННО-ТРАНСПОРТНОЙ СИСТЕМЫ И ВОПРОСЫ ИХ ЛОГИСТИЧЕСКОГО УПРАВЛЕНИЯ //Universum: технические науки. – 2022. – №. 6-3 (99). – С. 43-47.
73. Имомназаров С. К. и др. СИСТЕМА ПОДАЧИ АВТОМОБИЛЕЙ, РАБОТАЮЩИХ НА ГАЗЕ //Universum: технические науки. – 2022. – №. 5-4 (98). – С. 37-42.
74. Маннонов, Ж. А., Имомназаров, С. К., & Абдурахимов, Р. Г. У. (2023). ВНЕДРЕНИЕ ИНТЕЛЛЕКТУАЛЬНЫХ СИСТЕМ В СОВРЕМЕННЫЕ АВТОМОБИЛИ. Gospodarka i Innowacje., 33, 185-192.
75. Imomnazarov S., Axmadaliyev X., Teshaboyev R. ELECTRONIC ENGINE CONTROL SYSTEMS AND ITS CLASSIFICATION //Главный редактор: Ахметов Сайранбек Махсутович, д-р техн. наук; Заместитель главного редактора: Ахмеднабиев Расул Магомедович, канд. техн. наук; Члены редакционной коллегии. – 2023. – С. 69.
76. Xakimjonovich S.R., Qoviljanovich I.S., Samarbekovich S.D. DEVELOPING EFFECTIVE COMPOSITIONS OF CERAMIC MASSES FOR THE PURCHASE OF SANITARY BUILDINGS ON THE BASIS OF LOCAL RAW MATERIALS WITH HIGH PHYSICAL AND MECHANICAL PROPERTIES // Archive of Conferences. – 2022. – С. 62-69.
77. Имомназаров С.К., Абдуганиев Ш.О., Рахимжонов А.А., & Журабоев Д.И. (2021). УЧАСТИЕ ОБЩЕСТВЕННОСТИ В ОБЕСПЕЧЕНИИ БЕЗОПАСНОСТИ ДВИЖЕНИЯ. Экономика и социум, (5-1), 939-942.
78. Xakimjonovich S.R. et al. STUDY OF CHEMICAL STRUCTURE, COMPOSITION, PROPERTIES AND MECHANICAL ACTIVITY OF MINERAL RAW MATERIALS IN PURCHASE OF SANITARY BUILDING PRODUCT //Archive of Conferences. – 2022. – С. 57-61
79. Adashboevich, M. J., Qoviljanovich, I. S., & Fazlitdinovich, S. F. (2020). Collaborative Learning Based on an Innovative Approach.International Journal of Progressive Sciences and Technologies,23(2), 690-692
80. Adashboevich, MJ,Qoviljanovich, IS, & Fazlitdinovich, SF (2020). Innovatsion yondashuvga asoslangan hamkorlikda ta'lim. Xalqaro progressiv fanlar va texnologiyalar jurnali , 23 (2), 690-692.
81. Mannonov, J. A., Imomnazarov, S. K., Kupaisinov, D. H. V. va Jamilov, B. M. V. (2022). ISHLAB CHIQARISH VA TRANSPORTS TIZIMI FAOLIYATINI TEXNOLOGIK JARAYONLARI VA ULARNING LOGISTIKASINI BOSHQARISH MASALLARI. Universum: Muhandislik fanlari , (6-3(99)), 43-47
82. Adashboyevich, MJ, & Qoviljanovich, IS Abduvali o'g'li, IH, & Xabibullaevich, XU (2021). Avtomobil qismlariga qo'llaniladigan sirt qotib qolishning zamonaviy texnologiyasi. NVEO-NATURAL VOLATILES & ESSENTIAL OILS jurnali| NVEO, 2673-2676
83. Sharipov, F. (2022). PEDAGOGIK YONDASHUVLAR INTEGRATSIYASI VA ULARNI TA'LIM JARAYONIDA QO'LLASH. Theoretical aspects in the formation of pedagogical sciences, 1(6), 78-81.

84. Sharipov, F., & Omonboyev, R. (2023). ENERGY EFFICIENCY IS AN IMPORTANT FACTOR OF SUSTAINABLE ENERGY SUPPLY. Theoretical aspects in the formation of pedagogical sciences, 2(2), 211-215.
85. Sharipov, F., & Omonboyev, R. (2023). GIDROENERGETIKA SOHASIDA ELEKTR ENERGIYASI OLISHNING AFZALLIKLARI. Академические исследования в современной науке, 2(3), 38-44.
86. Sharipov, F. (2022). PEDAGOGIK YONDASHUVLAR INTEGRATSIYASI VA ULARNI TA'LIM JARAYONIDA QO'LLASH. Theoretical aspects in the formation of pedagogical sciences, 1(6), 78-81.
87. Sharipov, F., & Omonboyev, R. (2023). ENERGY EFFICIENCY IS AN IMPORTANT FACTOR OF SUSTAINABLE ENERGY SUPPLY. Theoretical aspects in the formation of pedagogical sciences, 2(2), 211-215.
88. Sharipov, F., & Omonboyev, R. (2023). GIDROENERGETIKA SOHASIDA ELEKTR ENERGIYASI OLISHNING AFZALLIKLARI. Академические исследования в современной науке, 2(3), 38-44.