PROBLEMS OF FORMING A SPECIAL ANALYTICAL THINKING STYLE AND BUILDING ALGORITHMS FOR SOLVING LOGICAL PROBLEMS

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ABSTRACT

This article discusses the main themes of the teaching program in higher education, the formation of special style of thinking that is analytical to solve logical problems and the construction of algorithms.

The course program is one of the key disciplines, including the subject of preparing students for the information industry. Years of experience of the author in the teaching program students and students reveals a number of organizational and pedagogical aspects.

First of all, it should be noted the extremely low level of training students in the field of programming. Despite the fact that the study of the basics of structured programming is part of the state educational standard of general and secondary education in the field of informatics, many freshmen has some gaps in its development. This is due to the fact that in many schools in the "Programming" no qualified experts who could clear and accessible language to explain the subject. This situation is quite stable in recent years. Students learn the basics of programming within the school course of computer science, and experience considerable difficulties in a training program at the university. The successful development of the subject is only a small portion of students (10-15% of the total).

State educational standard of higher professional education in the IT professions and areas of training includes the study of programming in object- oriented paradigm, which is practically impossible without the preliminary basic training of students. Therefore, if a teacher really wants to teach his students, he has to start from scratch.

Students consider programming one of the most difficult disciplines and experience difficulties in its development. Most of the students (60-70%) at the end of training remain at the level of reproductive studies (can only solve common problems).

The above reasoning is because programming is a specific kind of human activity, for the successful implementation of which requires not only the use of acquired in learning knowledge and skills, but needs and the availability of a certain style of thinking.

Under the style of thinking, understand the open system smart strategies, techniques, skills and operations to which the person is predisposed because of their individual characteristics. Some researchers define the style of thinking as a system of regulatory requirements, forming the approach to the work and its results.

Some psychologists are classified as mechanical problems affect the thought processes on the computer as people think. However, the implementation of the teaching and learning of students are often offered algorithms for solving certain classes or algorithm (sequence of operations or steps) task. It is assumed that the student should be able to do it. The difficulties are mainly related to misinterpretation of the original data and the lack of ability of the formal execution of the algorithm. Formed in this way is called analytical thought process. Thus, the analytical style of thinking is required for a student's ability to impact on the algorithm and the ability to perform it.

The components of the analytical style of thinking:

1. Analysis of the raw data and interpretation task in accordance with predetermined algorithm input data.

2. Selecting an algorithm from an existing set of ready-made algorithms, ie, problems and display algorithm.

3. Implementation of the solution process through formal and precise execution of the operations that make up the algorithm for solving this problem.

4. Analysis of the results and correction of the original data in the event of a discrepancy between the estimated results.

The specific properties of the analytical style of thinking:

• concrete that is that the student uses a common (abstract) algorithm for solving a specific problem with a specific input;

• Granularity (level of detail) – Turn-by algorithm.

Adequate scientific and methodological literature on the problems of teaching programming and schoolchildren use the concept of "algorithmic style of thinking", which is a specific way of thinking requires the ability to create an algorithm that requires a mental schemes that contribute to vision problems as a whole, its decisions in large blocks, followed by a detailed process and informed fixing obtain the final result in language form.

Undoubtedly, algorithmic thinking is an important part of human intellectual activity with the use of modern information technology. System thinking is defined as algorithmic thinking is determined (in its systematic, but not in the elemental composition), necessary and sufficient components that allow you to define a particular style of thinking.

Components algorithmic style of thinking:

1. The analysis and selection of the desired result on the basis of the input data for the problem.

2. Distribution of operations required for the solution.

3. Selection by artist, able to carry out these operations.

4. Ordering and model building process solutions.

5. Implementation of the decisions and relate the results to the fact that should get.

6. Correction of source data or the operating system in the event of a

discrepancy between the results obtained with the proposed.

The specific properties of algorithmic style of thinking include:

- discrete (step by step action algorithm specifications, structuring transactions);
- abstraction (ability of abstraction from the specific input data and move to the problem as a whole);
- conscious expression in forms of language (ability to present an algorithm using a formal language).

It should be noted that the concept of "algorithmic style of thinking" has developed in that period of time when the dominant paradigm of structured programming. It is based on the use of algorithmic decomposition to solve the problem.

We went down the transition to object-oriented paradigm of creation and use of information technology does not deny the necessity of forming algorithmic style of thinking, but extends it. Education programming in schools should include not only the study of one or more programming languages, but is also aimed at the formation of students' thinking styles mentioned above, without which this training will not be effective. This requires a review and search for new methods, forms, means and methods of teaching programming. We distinguish complex methodological procedures, the use of which contributes to the development of each of the above styles of thinking.

For the analytical style of thinking:

1. Trace – Stepping finished algorithm (linear, branched, cyclic). Algorithms should be represented in various forms (verbal description, block diagram programming language).
2. Building a statement of the problem should be solved by the algorithm presented.
3. Find and fix syntax errors in the algorithm.
4. Finding and fixing logical (semantic) algorithm error.
5. The optimization algorithm is finished. For algorithmic style of thinking:

1. Create a new algorithm, its entry, verification and implementation of training or the selected artist.
2. Acquisition of basic algorithms for solving typical problems.
3. Find and correct syntactic and semantic errors in the algorithm.
4. The optimization algorithm finished. For an object style of thinking:

1. Select the domain objects, their static and dynamic properties, the construction of the object hierarchy.
2. Construction of a model problem.
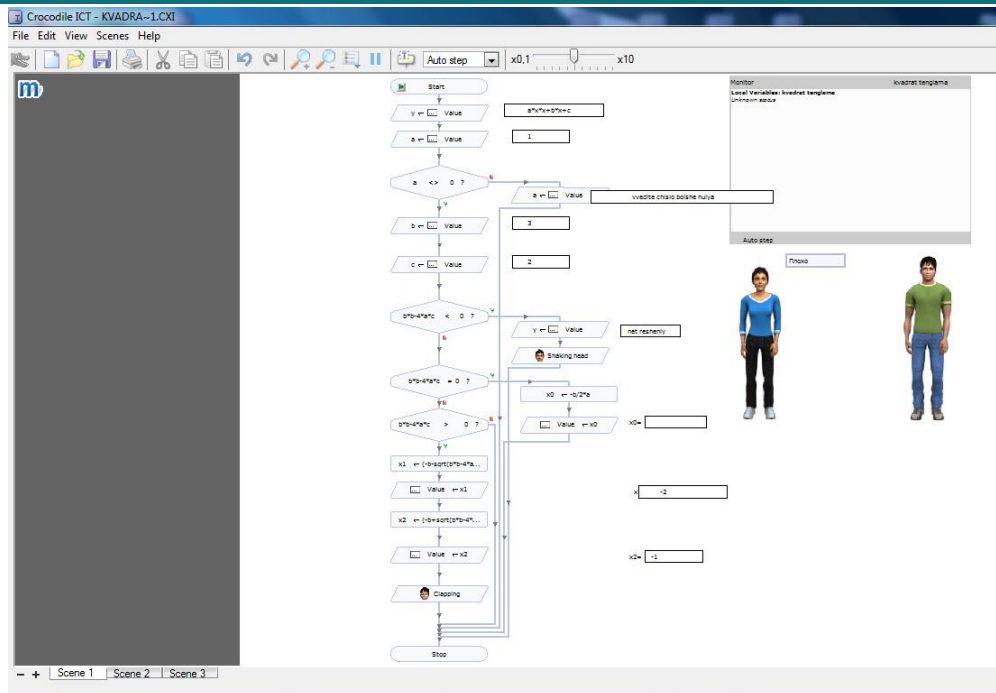3. A description of the events and the behavior of objects.

Fig.1. The algorithm of the problem
of the quadratic equation program Crocodile ICT

The use of these teaching methods in the educational process will allow students to learn the ways of thinking necessary for the successful implementation of the training program, as well as for other types of education and cognitive and practical activities.

In addressing challenges to consolidate knowledge using different approaches: a ready algorithm is proposed to be implemented in the program or change the existing algorithm, taking into account the conditions for other tasks. Unfortunately, the time allotted exemplary program of basic education in computer science and information and communication technology to study under "Algorithms and performers" clearly insufficient for successful mastery of skills.

Solving this problem requires specific methods and means of learning. One of these tools is a simulation program Crocodile ICT.

Working with Simulation Crocodile ICT Using panels

When you open a window on the left side there is a category where you can select the desired category. By clicking the sub-category appears. For example, if you select the subcategory Introduction appears on the screen a program that shows the job, press start when the program starts and stimulates learning algorithm.

For example: Problem number 1 solution to a quadratic equation from the book "Fundamentals of Computer Appliances" 9th grade, see "The basic properties of the algorithm". The figure shows how the algorithm is in the program Crocodile ICT (Fig. 1).

The program itself is simple to use, this storany it is very convenient.

This program can be widely used in secondary schools, and college and academic Lece. It facilitates the work of teachers at obesnenie programming algorithm and demonstrates the process. And you can easily catch students` interest.

The use of these methods and teaching aids in the educational process will allow the students to learn ways of thinking necessary for the successful implementation of the

program of study, as well as for other types of education and cognitive and practical activities.

References:

1. Usmonov, M. T. o'g'li. (2021). Matritsa rangi. Matritsa rangini tuzatish usullari. Fan va ta'lim, 2(8), 280-291. http://openscience.uz/index.php/sciedu/article/view/1758 dan olindi.

2. Usmonov, M. T. o'g'li. (2021). Matritsalar va ular ustida amallar. Fan va ta'lim, 2(8), 226-238. http://openscience.uz/index.php/sciedu/article/view/1752 dan olindi.

3. Usmonov, M. T. o'g'li. (2021). Vektorlar. Fan va ta'lim, 2(8), 173-182. https://openscience.uz/index.php/sciedu/article/view/1747 dan olindi.

4. Usmonov, M. T. o'g'li. (2021). Chiziqli algebraik tenglamalar tizimini echishning matritsa, Gauss va Gauss-Jordan usullari. Fan va ta'lim, 2(8), 312-322. http://openscience.uz/index.php/sciedu/article/view/1761 dan olindi.

5. Usmonov, M. T. o'g'li. (2021). Chiziqli operatorlar va komissiya xossalari. Fan va ta'lim, 2(8), 133-145. http://openscience.uz/index.php/sciedu/article/view/1744 dan olindi.

6. Usmonov, M. T. o'g'li. (2021). Chiziqli operatorlar va komissiya xossalari. Fan va ta'lim, 2(8), 146-152. http://openscience.uz/index.php/sciedu/article/view/1744 dan olindi.

7. Usmonov, M. T. o'g'li. (2021). Kvadratik forma va uni kanonik korinishga keltirish. Fan va ta'lim, 2(8), 153-172. https://www.openscience.uz/index.php/sciedu/article/view/1746 dan olindi.

8. Usmonov, M. T. o'g'li. (2021). Arifmetik vektor fazo va unga misollar. Fan va ta'lim, 2(8), 109-120. https://www.openscience.uz/index.php/sciedu/article/view/1742 dan olindi.

9. Usmonov, M. T. o'g'li. (2021). Vektorlarning skalyar ko'paytmasi. Fan va ta'lim, 2(8), 183-191. https://www.openscience.uz/index.php/sciedu/article/view/1748 dan olindi.

10. Usmonov, M. T. o'g'li. (2021). Vektorlarning vektor va aralash ko'paytmalari. Fan va ta'lim, 2(8), 271-279. http://openscience.uz/index.php/sciedu/article/view/1757 dan olindi.

11. Usmonov, M.T. & Shokirov.,Sh.H, (2022). Teylor formulasini matematik masalalarni echishdagi ahamiyati. "«Science and Education» Scientific Journal" Scientific Journal, Tom-3, 19-23.

12. Usmonov, M.T. & Shokirov.,Sh.H, (2022). Darajali qatorlarning taqribiy hisoblashlarga tatbiqi. «Science and Education» Scientific Journal, Tom-3, 29-32.

13. Usmonov, M.T. & Shokirov.,Sh.H, (2022). Ishoralari almashinib keluvchi qatorlar. Leybnits alomati. «Science and Education» Scientific Journal, Tom-3, 24-28.

14. Usmonov, M.T. & Shokirov.,Sh.H, (2022). Teylor qatori va uning tadbiqlari. «Science and Education» Scientific Journal, Tom-3, 33-38.

15. Усмонов, М.Т. (2021). Вычисление центра тяжести плоской ограниченной фигуры с помощью двойного интеграла. «Science and Education» Scientific Journal, Tom-2, 64-71.

16. Усмонов, М.Т. (2021). Биномиальное распределение вероятностей. «Science and Education» Scientific Journal, Tom-2, 81-85.

17. Усмонов,М.Т. (2021). Поток векторного поля. Поток через замкнутую поверхность. «Science and Education» Scientific Journal, Tom-2, 52-63.

18. Усмонов,М.Т. (2021). Вычисление определенного интеграла по формуле трапеций и методом Симпсона. «Science and Education» Scientific Journal, Tom-2, 213-225.

19. Усмонов,М.Т. (2021). Метод касательных. «Science and Education» Scientific Journal, Tom-2, 25-34.

20. Усмонов,М.Т. (2021). Вычисление предела функции с помощью ряда. «Science and Education» Scientific Journal, Tom-2, 92-96.

21. Усмонов,М.Т. (2021). Примеры решений произвольных тройных интегралов. Физические приложения тройного интеграла. «Science and Education» Scientific Journal, Tom-2, 39-51.

22. Усмонов,М.Т. (2021). Вычисление двойного интеграла в полярной системе координат. «Science and Education» Scientific Journal, Tom-2, 97-108.

23. Усмонов,М.Т. (2021). Криволинейный интеграл по замкнутому контуру. Формула Грина. Работа векторного поля. «Science and Education» Scientific Journal, Tom-2, 72-80.

24. Усмонов,М.Т. (2021). Правило Крамера. Метод обратной матрицы. «Science and Education» Scientific Journal, Tom-2, 249-255.

25. Усмонов,М.Т. (2021). Теоремы сложения и умножения вероятностей. Зависимые и независимые события. «Science and Education» Scientific Journal, Tom-2, 202-212.

26. Усмонов,М.Т. (2021). Распределение и формула Пуассона. «Science and Education» Scientific Journal, Tom-2, 86-91.

27. Усмонов,М.Т. (2021). Геометрическое распределение вероятностей. «Science and Education» Scientific Journal, Tom-2, 18-24.

28. Усмонов,М.Т. (2021). Вычисление площади поверхности вращения. «Science and Education» Scientific Journal, Tom-2, 97-104.

29. Усмонов,М.Т. (2021). Нахождение обратной матрицы. «Science and Education» Scientific Journal, Tom-2, 123-130.

30. Усмонов,М.Т. (2021). Вычисление двойного интеграла. Примеры решений. «Science and Education» Scientific Journal, Tom-2, 192-201.

31. Усмонов,М.Т. (2021). Метод прямоугольников. «Science and Education» Scientific Journal, Tom-2, 105-112.

32. Усмонов,М.Т. (2021). Как вычислить длину дуги кривой?. «Science and Education» Scientific Journal, Tom-2, 86-96.

33. Усмонов,М.Т. (2021). Вычисление площади фигуры в полярных координатах с помощью интеграла. «Science and Education» Scientific Journal, Tom-2, 77-85.

34. Усмонов,М.Т. (2021). Повторные пределы. «Science and Education» Scientific Journal, Tom-2, 35-43.

35. Усмонов,М.Т. (2021). Дифференциальные уравнения второго порядка и высших порядков. Линейные дифференциальные уравнения второго порядка с постоянными коэффициентами. «Science and Education» Scientific Journal, Tom-2, 113-122.

36. Усмонов,М.Т. (2021). Пределы функций. Примеры решений. «Science and Education» Scientific Journal, Tom-2, 139-150.

37. Усмонов,М.Т. (2021). Метод наименьших квадратов. «Science and Education» Scientific Journal, Tom-2, 54-65.

38. Усмонов,М.Т. (2021). Непрерывность функции двух переменных. «Science and Education» Scientific Journal, Tom-2, 44-53.

39. Усмонов,М.Т. (2021). Интегрирование корней (иррациональных функций). Примеры решений. «Science and Education» Scientific Journal, Tom-2, 239-248.

40. Усмонов,М.Т. (2021). Криволинейные интегралы. Понятие и примеры решений. «Science and Education» Scientific Journal, Tom-2, 26-38.

41. Усмонов,М.Т. (2021). Гипергеометрическое распределение вероятностей. «Science and Education» Scientific Journal, Tom-2, 19-25.

42. Усмонов,М.Т. (2021). Абсолютная и условная сходимость несобственного интеграла. Признак Дирихле. Признак Абеля. «Science and Education» Scientific Journal, Tom-2, 66-76.

43. Усмонов,М.Т. (2021). Решение систем линейных уравнений. «Science and Education» Scientific Journal, Tom-2, 131-138.

44. Usmonov, M.T. (2021). Matritsalar va ular ustida amallar. «Science and Education» Scientific Journal, Tom-2, 226-238.

45. Usmonov, M.T. (2021). Teskari matritsa. Teskari matritsani hisoblash usullari. «Science and Education» Scientific Journal, Tom-2, 292-302.

46. Usmonov, M.T. (2021). Bir jinsli chiziqli algebraik tenglamalar sistemasi. «Science and Education» Scientific Journal, Tom-2, 323-331.

47. Usmonov, M.T. (2021). Chiziqli fazo. Yevklid fazosi. «Science and Education» Scientific Journal, Tom-2, 121-132.

48. Usmonov, M.T. (2021). Vektorlarning skalyar ko 'paytmasi. «Science and Education» Scientific Journal, Tom-2, 183-191.

49. Usmonov, M.T. (2021). Xos vektorlari bazis tashkil qiluvchi chiziqli operatorlar. «Science and Education» Scientific Journal, Tom-2, 146-152.

50. Usmonov, M.T. (2021). Chiziqli algebraik tenglamalar sistemasi va ularni echish usullari. «Science and Education» Scientific Journal, Tom-2, 303-311.

51. Usmonov, M.T. (2021). Vektorlar. «Science and Education» Scientific Journal, Tom-2, 173-182.

52. Usmonov, M.T. (2021). Kvadratik forma va uni kanonik korinishga keltirish. «Science and Education» Scientific Journal, Tom-2, 153-172.

53. Usmonov, M.T. (2021). Arifmetik vektor fazo va unga misollar. «Science and Education» Scientific Journal, Tom-2, 109-120.

54. Usmonov, M.T. (2021). Chiziqli operatorlar va ularning xossalari. «Science and Education» Scientific Journal, Tom-2, 133-145.

55. Usmonov, M.T. (2021). Determinantlar nazariyasi. «Science and Education» Scientific Journal, Tom-2, 256-270.

56. Usmonov, M.T. (2021). Matritsa rangi. Matritsa rangini hisoblash usullari. «Science and Education» Scientific Journal, Tom-2, 280-291.

57. Usmonov, M.T. (2021). Autentification, authorization and administration. «Science and Education» Scientific Journal, Tom-2, 233-242.

58. Usmonov, M.T. (2021). Vektorlar nazariyasi elementlari. «Science and Education» Scientific Journal, Tom-2, 332-339.

59. Usmonov, M.T. (2021). EHTIMOLLAR NAZARIYASI. «Science and Education» Scientific Journal, Tom-1, 10-15.

60. Usmonov, M.T. (2021). Chiziqli algebraik tenglamalar sistemasi va ularni echish usullari. «Science and Education» Scientific Journal, Tom-2, 333-311.

61. Usmonov, M.T. (2021). Bir jinsli chiziqli algebraik tenglamalar sistemasi. «Science and Education» Scientific Journal, Tom-21, 323-331.

62. Usmonov, M.T. (2021). Vektorlar nazariyasi elementlari. «Science and Education» Scientific Journal, Tom-2, 332-339.

63. Usmonov, M.T. (2021). Chiziqli fazo. Yevklid fazosi. «Science and Education» Scientific Journal, Tom-2, 121-132.

64. Usmonov M. T. & Qodirov F. E, BIR JINSLI VA BIR JINSLIGA OLIB KELINADIGAN DIFFERENSIAL TENGLAMALAR. AMALIY MASALALARGA TADBIQI (KO'ZGU MASALASI) , BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI: Vol. 2 No. 1 (2022): БАРҚАРОРЛИК ВА ЕТАКЧИ ТАДҚИҚОТЛАР ОНЛАЙН ИЛМИЙ ЖУРНАЛИ

65. Usmonov Maxsud Tulqin o'g'li, Sayifov Botirali Zokir o'g'li, Negmatova Nilufar Ergash qizi, Qodirov Farrux Ergash o'g'li, BIRINCHI VA IKKINCHI TARTIBLI HUSUSIY HOSILALAR. TO'LA DIFFERENSIAL. TAQRIBIY HISOBLASH , BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI: 2022: SPECIAL ISSUE: ZAMONAVIY UZLUKSIZ TA'LIM SIFATINI OSHIRISH ISTIQBOLLARI

66. Usmonov Maxsud Tulqin o'g'li, Sayifov Botirali Zokir o'g'li, Negmatova Nilufar Ergash qizi, Qodirov Farrux Ergash o'g'li, IKKI ARGUMENTLI FUNKSIYANING ANIQLANISH SOHASI, GRAFIGI, LIMITI VA UZLUKSIZLIGI , BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI: 2022: SPECIAL ISSUE: ZAMONAVIY UZLUKSIZ TA'LIM SIFATINI OSHIRISH ISTIQBOLLARI

67. Usmonov Maxsud Tulqin o'g'li. (2022). FURYE QATORI. FUNKSIYALARNI FURYE QATORIGA YOYISH. https://doi.org/10.5281/zenodo.6055125

68. Usmonov. M. T. , & Qodirov. F. E. . (2022). DARAJALI QATORLAR. DARAJALI QATORLARNING YAQINLASHISH RADIUSI VA SOHASI. TEYLOR FORMULASI VA QATORI. IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI, 8–20. Retrieved from http://www.sciencebox.uz/index.php/jis/article/view/1151

69. Usmonov. M. T. , & Qodirov. F. E.. (2022). FURE QATORI VA UNING TADBIQLARI. IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI, 21–33. Retrieved from http://www.sciencebox.uz/index.php/jis/article/view/1152

70. M.T Usmonov, M.A Turdiyeva, Y.Q Shoniyozova, (2021). SAMPLE POWER. SELECTION METHODS (SAMPLE ORGANIZATION METHODS). ООО НАУЧНАЯ ЭЛЕКТРОННАЯ БИБЛИОТЕКА , 59-60.

71. Усмонов,М.Т, М.А.Турдиева (2021). ГЛАВА 9. МЕТОДЫ И СРЕДСТВА СОВРЕМЕННОЙ ЗАЩИТЫ КОМПЬЮТЕРНЫХ СЕТЕЙ. РИСКИ И ПРИНЦИПЫ ЗАЩИТЫ ИНФОРМАЦИИ В ЭЛЕКТРОННОЙ ПОЧТЕ. ББК 60 С69, Ст-99.

72. Усмонов,М.Т, J.M.Saipnazarov, K.B. Ablaqulov (2021 SOLUTION OF MATHEMATICAL PROBLEMS IN LOWER CLASSES. Книга: АКТУАЛЬНЫЕ ВОПРОСЫ СОВРЕМЕННОЙ НАУКИ И ОБРАЗОВАНИЯ, 167-177.

73. Усмонов М.Т. (2022). E-LEARNING И ЕГО РОЛЬ В СОВРЕМЕННОЙ СИСТЕМЕ ОБРАЗОВАНИЯ. : Special Issue_Ta'limni modernizatsiyalash jarayonlari muammolar va echimlar». 168-171.

74. Usmonov. M. T. ., & Qodirov. F. E.. (2022). STOKS FORMULASI. SIRT INTEGRALLARI TADBIQLARI. IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI, 34–45. Retrieved from https://sciencebox.uz/index.php/jis/article/view/1153

75. Usmonov M. T. The Concept of Compatibility, Actions on Compatibility. International Journal of Academic Multidisciplinary Research (IJAMR), Vol. 5 Issue 1, January - 2021, Pages: 10-13.

76. Usmonov M. T. The Concept of Number. The Establishment of the Concept of Natural Number and Zero. International Journal of Academic Information Systems Research (IJAISR), Vol. 4 Issue 12, December - 2020, Pages: 7-9.

77. Usmonov M. T. The Concept of Compatibility, Actions on Compatibility. International Journal of Engineering and Information Systems (IJEAIS), Vol. 4 Issue 12, December - 2020, Pages: 66-68.

78. Usmonov M. T. General Concept of Mathematics and Its History. International Journal of Academic Multidisciplinary Research (IJAMR). Vol. 4 Issue 12, December - 2020, Pages: 38-42

79. Usmonov M. T. Asymmetric Cryptosystems. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 6-9.

80. Usmonov M. T. Basic Concepts of Information Security. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 5-8.

81. Usmonov M. T. Communication Control Systems, Methodology. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 47-50.

82. Usmonov M. T. Compatibility between the Two Package Elements. Binar Relations and Their Properties. International Journal of Academic Multidisciplinary Research (IJAMR) ISSN: 2643-9670 Vol. 5 Issue 1, January - 2021, Pages: 52-54.

83. Usmonov M. T. Cryptographic Protection of Information. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 24-26.

84. Usmonov M. T. Electronic Digital Signature. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 30-34.

85. Usmonov M. T. "Equal" And "Small" Relations. Add. Laws Of Addition. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 27-29.

86. Usmonov M. T. Establish Network Protection. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 14-21.

87. Usmonov M. T. Fundamentals of Symmetric Cryptosystem. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 36-40.

88. Usmonov M. T. General Concepts of Mathematics. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 14-16.

89. Usmonov M. T. Identification and Authentication. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 39-47.

90. Usmonov M. T. Information Protection and Its Types. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 1-4.

91. Usmonov M. T. Information Protection in Wireless Communication Systems. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 61-64.

92. Usmonov M. T. Information protection supply. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 12-15.

93. Usmonov M. T. Information Security Policy. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 70-73.

94. Usmonov M. T. Information War. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 79-82.

95. Usmonov M. T. International and National Legal Base in the Field Of Information Security. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 7-14.

96. Usmonov M. T. Legal Legislative Basis for Detection of Information Crime. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 80-87.

97. Usmonov M. T. Mathematical Proofs. Incomplete Induction, Deduction, Analogy. The Concept Of Algorithm And Its Properties. International Journal of Academic Multidisciplinary Research (IJAMR) ISSN: 2643-9670 Vol. 5 Issue 1, January - 2021, Pages: 26-29.

98. Usmonov M. T. Means of Information Protection. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 27-30.

99. Usmonov M. T. Organization of E-Mail Protection. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 36-40.

100. Usmonov M. T. Organizing Internet Protection. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 24-28.

101. Usmonov M. T. Origin and Equal Strength Relationships between Sentences. Necessary and Sufficient Conditions. Structure of Theorem and Their Types. International Journal of Engineering and Information Systems (IJEAIS) ISSN: 2643-640X Vol. 5 Issue 1, January - 2021, Pages: 45-47.

102. Usmonov M. T. PhysicalSecurity. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 58-61.

103. Usmonov M. T. Practical Security Management. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 71-74.

104. Usmonov M. T. Problem Solving In Primary Schools. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 72-83.

105. Usmonov M. T. Reproduction. The Laws of Reproduction. International Journal of Engineering and Information Systems (IJEAIS) ISSN: 2643-640X Vol. 5 Issue 1, January - 2021, Pages: 36-40.

106. Usmonov M. T. Security Models. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 18-23.

107.   Usmonov M. T. Solving Problems In Arithmetic Methods. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 58-61.

108.   Usmonov M. T. Stenographic Protection of Information. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 31-35.

109.   Usmonov M. T. Telecommunications and Network Security. International Journal of Academic Engineering Research (IJAER) ISSN: 2643-9085 Vol. 5 Issue 1, January - 2021, Pages: 57-61.

110.   Usmonov M. T. The Concept of Compatibility, Actions on Compatibility. International Journal of Academic Multidisciplinary Research (IJAMR) ISSN: 2643-9670 Vol. 5 Issue 1, January - 2021, Pages: 10-13.

111.   Usmonov M. T. The Concept Of National Security. International Journal of Academic and Applied Research (IJAAR) ISSN: 2643-9603 Vol. 5 Issue 1, January - 2021, Pages: 73-75.

112.   Usmonov M. T. The Concept of Number. The Establishment of the Concept of Natural Number and Zero. International Journal of Academic Multidisciplinary Research (IJAMR) ISSN: 2643-9670 Vol. 5 Issue 1, January - 2021, Pages: 18-21.

113.   Usmonov M. T. The Concept of Relationship. Characteristics of Relationships. International Journal of Academic Multidisciplinary Research (IJAMR) ISSN: 2643-9670 Vol. 5 Issue 1, January - 2021, Pages: 38-40.

114.   Usmonov M. T. The Concept of Size and Measurement. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 36-40.

115.   Usmonov M. T. The Emergence and Development of Methods of Writing All Negative Numbers. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 48-50.

116.   Usmonov M. T. The Purpose, Function and History Of The Development Of Mathematical Science. International Journal of Engineering and Information Systems (IJEAIS) ISSN: 2643-640X Vol. 5 Issue 1, January - 2021, Pages: 8-17.

117.   Usmonov M. T. True and False Thoughts, Quantities. International Journal of Academic Information Systems Research (IJAISR) ISSN: 2643-9026 Vol. 5 Issue 1, January - 2021, Pages: 1-5.

118.   Usmonov M. T. Virtual Protected Networks. International Journal of Academic Pedagogical Research (IJAPR) ISSN: 2643-9123 Vol. 5 Issue 1, January - 2021, Pages: 55-57.

119.   Usmonov M. T. What Is Solving The Problem? Methods of Solving Text Problems. International Journal of Engineering and Information Systems (IJEAIS) ISSN: 2643-640X Vol. 5 Issue 1, January - 2021, Pages: 56-58.

120.   М Усмонов - Academic research in modern science, 2022. КАК ПОСТРОИТЬ ЛИНИЮ В ПОЛЯРНОЙ СИСТЕМЕ КООРДИНАТ. Pages: 93-105.

121.   UM Tulqin o'g'li - TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY ..., 2022. DETERMINANTLAR NAZARIYASI. Pages: 232-248.

122.   R Jo'rayev, M Usmonov - Solution of social problems in management and ..., 2022. OZIQ-OVQAT SANOATINING DOLZARBLIGI VA SAMARADORLIGI. Pages: 19-25

123. М Усмонов - Academic research in modern science, 2022. КАК ПОСТРОИТЬ ЛИНИЮ В ПОЛЯРНОЙ СИСТЕМЕ КООРДИНАТ. Pages: 93-105

124. М Усмонов - Development and innovations in science, 2022. ВЕКТОРНОЕ ПРОИЗВЕДЕНИЕ ВЕКТОРОВ. СМЕШАННОЕ ПРОИЗВЕДЕНИЕ ВЕКТОРОВ. Pages: 33-52.

125. М Усмонов - Models and methods in modern science, 2022. ДИСКРЕТНЫЙ ВАРИАЦИОННЫЙ РЯД. ПОЛИГОН ЧАСТОТ И ЭМПИРИЧЕСКАЯ ФУНКЦИЯ РАСПРЕДЕЛЕНИЯ. Pages: 27-35.

126. М Усмонов - Инновационные исследования в науке, 2022. ИНТЕРВАЛЬНЫЙ ВАРИАЦИОННЫЙ РЯД. ГИСТОГРАММА ОТНОСИТЕЛЬНЫХ ЧАСТОТ. Pages: 43-52

127. М Усмонов - Международная конференция академических наук, 2022. ФОРМУЛЫ ДЕЛЕНИЯ ОТРЕЗКА В ДАННОМ ОТНОШЕНИИ. ФОРМУЛЫ КООРДИНАТ СЕРЕДИНЫ ОТРЕЗКА. Pages: 17-26.

128. UM Tulqin o'g'li, QF Ergash o'g'li - TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY …, 2022. YER OSTI SUVLARINING FIZIK XOSSALARI, KIMYOVIY TARKIBI, HARAKATI VA GRUNTLARNING SUV O'TKAZUVCHANLIGI, FILTRATSIYA QONUNI. Pages: 219-222.

129. UM Tulqin o'g'li, QF Ergash o'g'li - TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY …, 2022. VEKTOR VA SKALYAR MAYDONLAR. GRADIYENT VA YO'NALISH BO'YICHA HOSILA. DIVERGENSIYA VA ROTOR. SATH CHIZIQLARI. GRADIYENT MAYDONLAR. OQIMLAR. Pages: 172-187.

130. UM Tulqin o'g'li, QF Ergash o'g'li - IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY …, 2022. FURE QATORI VA UNING TADBIQLARI. Pages: 21-33.

131. o'g'li, U. M. T. ., & o'g'li, Q. F. E. . (2022). FURE QATORI VA UNING TADBIQLARI. IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI, 21–33. Retrieved from http://sciencebox.uz/index.php/jis/article/view/1152

132. o'g'li, U. M. T. ., & o'g'li, Q. F. E. . (2022). DARAJALI QATORLAR. DARAJALI QATORLARNING YAQINLASHISH RADIUSI VA SOHASI. TEYLOR FORMULASI VA QATORI. IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI, 8–20. Retrieved from http://www.sciencebox.uz/index.php/jis/article/view/1151

133. МТЎ Усмонов, ҲУМ Ўғли - Central Asian Research Journal for Interdisciplinary …, 2022. РАВНОМЕРНОЕ РАСПРЕДЕЛЕНИЕ ВЕРОЯТНОСТЕЙ. 15-24

134. Mahsud Tulkin oglu Usmanov. (2021). Chiziqli algebraik tenglamalar sistemasi va ularni yechish usullari. «Science and Education» Scientific Journal.

135. Mahsud Tulkin oglu Usmanov. (2021). Bir jinsli chiziqli algebraik tenglamalar sistemasi. «Science and Education» Scientific Journal.

136. Mahsud Tulkin oglu Usmanov. (2021). Vektorlar nazariyasi elementlari. «Science and Education» Scientific Journal.

137. Mahsud Tulkin oglu Usmanov. (2021). Chiziqli fazo. Yevklid fazosi. «Science and Education» Scientific Journal.

138. Mahsud Tulkin oglu Usmanov. (2021). Matritsa rangi. Matritsa rangini hisoblash usullari. «Science and Education» Scientific Journal.

139. Mahsud Tulkin oglu Usmanov. (2021). Matritsalar va ular ustida amallar. «Science and Education» Scientific Journal.

140.   Mahsud Tulkin oglu Usmanov. (2021). Maxsud Tulqin o 'g'li Usmonov maqsudu32@ gmail. com Toshkent axborot texnologiyalari universiteti Qarshi filiali. «Science and Education» Scientific Journal.

141.   Mahsud Tulkin oglu Usmanov. (2021). Teskari matritsa. Teskari matritsani hisoblash usullari. «Science and Education» Scientific Journal.

142.   Mahsud Tulkin oglu Usmanov. (2021). Chiziqli operatorlar va ularning xossalari. «Science and Education» Scientific Journal.

143.   Mahsud Tulkin oglu Usmanov. (2021). Xos vektorlari bazis tashkil qiluvchi chiziqli operatorlar. «Science and Education» Scientific Journal.

144.   Mahsud Tulkin oglu Usmanov. (2021). Kvadratik forma va uni kanonik korinishga keltirish. «Science and Education» Scientific Journal.

145.   Mahsud Tulkin oglu Usmanov. (2021). Arifmetik vektor fazo va unga misollar. «Science and Education» Scientific Journal.

146.   Mahsud Tulkin oglu Usmanov. (2021). Vektorlarning skalyar ko 'paytmasi. «Science and Education» Scientific Journal.

147.   Mahsud Tulkin oglu Usmanov. (2021). Determinantlar nazariyasi. «Science and Education» Scientific Journal.

148.   Mahsud Tulkin oglu Usmanov. (2021). Vektorlarning vektor va aralash ko 'paytmalari. «Science and Education» Scientific Journal.

149.   Usmonov Maxsud Tulqin o'g'li. OZIQ-OVQAT SANOATINING DOLZARBLIGI VA SAMARADORLIGI. SOLUTION OF SOCIAL PROBLEMS IN MANAGEMENT AND ECONOMY International scientific-online conference. https://doi.org/10.5281/zenodo.7251090

150.   Usmonov Maxsud Tulqin o'g'li. ROBOTOTEXNIKA MAJMUALARINING AVTOMATLASHTIRILGAN ELEKTR YURITMALARINI QO'LLANILISH SOHALARI. ACADEMIC RESEARCH IN MODERN SCIENCE International scientific-online conference.Том 2 № 2 (2023): Академические исследования в современной науке. http://www.econferences.ru/index.php/tafps/issue/archive

151.   Usmonov Maxsud Tulqin o'g'li. SUN'IY INTELLEKT TIZIMLARINING INSONIYAT FAOLIYATIDA TUTGAN O'RNI. ACADEMIC RESEARCH IN MODERN SCIENCE International scientific-online conference.Том 2 № 2 (2023): Академические исследования в современной науке. http://www.econferences.ru/index.php/tafps/issue/archive

152.   Usmonov Maxsud Tulqin o'g'li. КАК ПОСТРОИТЬ ЛИНИЮ В ПОЛЯРНОЙ СИСТЕМЕ КООРДИНАТ. ACADEMIC RESEARCH IN MODERN SCIENCE International scientific-online conference.Том 2 № 2 (2023): Академические исследования в современной науке. http://www.econferences.ru/index.php/tafps/issue/archive

153.   Usmonov Maxsud Tulqin o'g'li. AXBOROT OQIMINI SHAKLLANTIRISHDA WEB ILOVALARNI YARATISH VA QO'LLASH USULLARI. CURRENT APPROACHES AND NEW RESEARCH IN MODERN SCIENCES International scientific-online conference.Том 2 № 1 (2023): Current approaches and new research in modern sciences. http://www.econferences.ru/index.php/tafps/issue/archive

154.   Usmonov Maxsud Tulqin o'g'li. MA'LUMOTLAR BAZASI FANINI OLIY TA'LIM TALABALARIGA O'QITISHDAGI QO'YILGAN ASOSIY TALABLAR. CURRENT APPROACHES AND NEW RESEARCH IN MODERN SCIENCES International scientific-online conference.Том 2 № 1

(2023): Current approaches and new research in modern sciences. http://www.econferences.ru/index.php/tafps/issue/archive

155. Usmonov Maxsud Tulqin o'g'li. FORMAL TILLAR VA GRAMMATIKA.KOMPYUTER LINGVISTIKASINI KASHF ETILISHIDAGI MATEMATIK MODELLAR KO'RINISHI. CURRENT APPROACHES AND NEW RESEARCH IN MODERN SCIENCES International scientific-online conference.Том 2 № 1 (2023): Current approaches and new research in modern sciences. http://www.econferences.ru/index.php/tafps/issue/archive

156. Usmonov Maxsud Tulqin o'g'li. ZAMONAVIY DASTURLASH TILLARINI O'RGANISHNING AHAMIYATI. DEVELOPMENT AND INNOVATIONS IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Development and innovations in science. http://www.econferences.ru/index.php/tafps/issue/archive

157. Usmonov Maxsud Tulqin o'g'li. MAKTABDA INFORMATIKA FAN VA O'QUV PREDMETI SIFATIDA O'QITILISHI. DEVELOPMENT AND INNOVATIONS IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Development and innovations in science. http://www.econferences.ru/index.php/tafps/issue/archive

158. Usmonov Maxsud Tulqin o'g'li. ВЕКТОРНОЕ ПРОИЗВЕДЕНИЕ ВЕКТОРОВ. СМЕШАННОЕ ПРОИЗВЕДЕНИЕ ВЕКТОРОВ. DEVELOPMENT AND INNOVATIONS IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Development and innovations in science. http://www.econferences.ru/index.php/tafps/issue/archive

159. Usmonov Maxsud Tulqin o'g'li. DEVELOPMENT OF WEB-APPLICATIONS FOR THE BUREAU FOR THE REPAIR OF APARTMENTS. DEVELOPMENT AND INNOVATIONS IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Development and innovations in science. http://www.econferences.ru/index.php/tafps/issue/archive

160. Usmonov Maxsud Tulqin o'g'li. DASTURLASH TILLARI VA PYTHON DASTURLASH TILINI O'RNATISH. DEVELOPMENT AND INNOVATIONS IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Development and innovations in science. http://www.econferences.ru/index.php/tafps/issue/archive

161. Usmonov Maxsud Tulqin o'g'li. PEDAGOGLARGA DASTURLASH TILINI O'QITISHDA INTERFAOL USULLARDAN FOYDALANISH. МЕЖДУРОДНАЯ КОНФЕРЕНЦИЯ АКАДЕМИЧЕСКИХ НАУК. Том 2 № 1 (2023): Международная конференция академических наук. http://www.econferences.ru/index.php/tafps/issue/archive

162. Usmonov Maxsud Tulqin o'g'li. JAVA DASTURLASH MUHITIDA SHART OPERATORLARI (IF, SWITCH CASE). МЕЖДУРОДНАЯ КОНФЕРЕНЦИЯ АКАДЕМИЧЕСКИХ НАУК. Том 2 № 1 (2023): Международная конференция академических наук. http://www.econferences.ru/index.php/tafps/issue/archive

163. Usmonov Maxsud Tulqin o'g'li. ФОРМУЛЫ ДЕЛЕНИЯ ОТРЕЗКА В ДАННОМ ОТНОШЕНИИ. ФОРМУЛЫ КООРДИНАТ СЕРЕДИНЫ ОТРЕЗКА. МЕЖДУРОДНАЯ КОНФЕРЕНЦИЯ АКАДЕМИЧЕСКИХ НАУК. Том 2 № 1 (2023): Международная конференция академических наук. http://www.econferences.ru/index.php/tafps/issue/archive

164. Usmonov Maxsud Tulqin o'g'li. MAKTAB GEOMETRIYA DARSLARINI TASHKIL ETISHDA DASTURLASH TILLARIDAN FOYDALANISH. INNOVATIVE RESEARCH IN SCIENCE

International scientific-online conference. Том 2 № 1 (2023): Инновационные исследования в науке. http://www.econferences.ru/index.php/tafps/issue/archive

165. Usmonov Maxsud Tulqin o'g'li. MOBIL ALOQA VOSITALARINING OPERATSION TIZIMLARI TAHLILI. INNOVATIVE RESEARCH IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Инновационные исследования в науке. http://www.econferences.ru/index.php/tafps/issue/archive

166. Usmonov Maxsud Tulqin o'g'li. ИНТЕРВАЛЬНЫЙ ВАРИАЦИОННЫЙ РЯД. ГИСТОГРАММА ОТНОСИТЕЛЬНЫХ ЧАСТОТ. INNOVATIVE RESEARCH IN SCIENCE International scientific-online conference. Том 2 № 1 (2023): Инновационные исследования в науке. http://www.econferences.ru/index.php/tafps/issue/archive

167. Usmonov Maxsud Tulqin o'g'li. DASTURLASH TILLARI VA PYTHON DASTURLASH TILINI O'RNATISH. MODELS AND METHODS IN MODERN SCIENCE International scientific-online conference. Vol. 2 No. 1 (2023): Models and methods in modern science. http://www.econferences.ru/index.php/tafps/issue/archive

168. Usmonov Maxsud Tulqin o'g'li. PHP DASTURLASH TILI VA UNING IMKONIYATLARI. MODELS AND METHODS IN MODERN SCIENCE International scientific-online conference. Vol. 2 No. 1 (2023): Models and methods in modern science. http://www.econferences.ru/index.php/tafps/issue/archive

169. Usmonov Maxsud Tulqin o'g'li. ДИСКРЕТНЫЙ ВАРИАЦИОННЫЙ РЯД. ПОЛИГОН ЧАСТОТ И ЭМПИРИЧЕСКАЯ ФУНКЦИЯ РАСПРЕДЕЛЕНИЯ. MODELS AND METHODS IN MODERN SCIENCE International scientific-online conference. Vol. 2 No. 1 (2023): Models and methods in modern science. http://www.econferences.ru/index.php/tafps/issue/archive

170. Usmonov Maxsud Tulqin o'g'li. WEB ILOVALAR DASTURIY TAMINOTINI YARATISH. SCIENCE AND INNOVATION IN THE EDUCATION SYSTEM International scientific-online conference. Том 2 № 1 (2023): Science and innovation in the education system. http://www.econferences.ru/index.php/tafps/issue/archive

171. Usmonov Maxsud Tulqin o'g'li. МИКРОПРОЦЕССОРНАЯ СИСТЕМА УПРАВЛЕНИЯ ГЕНЕРАТОРОМ СИГНАЛОВ. SCIENCE AND INNOVATION IN THE EDUCATION SYSTEM International scientific-online conference. Том 2 № 1 (2023): Science and innovation in the education system. http://www.econferences.ru/index.php/tafps/issue/archive

172. Usmonov Maxsud Tulqin o'g'li. DASTURLASHTIRISHDA INTERFAOL TA'LIM SOHASIDA ZAMONAVIY TEXNOLOGIYALARDAN FOYDALANISH ISTIQBOLLARI. SOLUTION OF SOCIAL PROBLEMS IN MANAGEMENT AND ECONOMY International scientific-online conference. Том 2 № 1 (2023): Solution of social problems in management and economy. http://www.econferences.ru/index.php/tafps/issue/archive

173. Usmonov Maxsud Tulqin o'g'li. ROBOTOTEXNIKA SOHASINI MAKTABLARDA JORIY QILISH SAMARADORLIGI. SOLUTION OF SOCIAL PROBLEMS IN MANAGEMENT AND ECONOMY International scientific-online conference. Том 2 № 1 (2023): Solution of social problems in management and economy. http://www.econferences.ru/index.php/tafps/issue/archive

174. Usmonov Maxsud Tulqin o'g'li. OZIQ-OVQAT SANOATINING DOLZARBLIGI VA SAMARADORLIGI. SOLUTION OF SOCIAL PROBLEMS IN MANAGEMENT AND ECONOMY

International scientific-online conference. Том 2 № 1 (2023): Solution of social problems in management and economy. http://www.econferences.ru/index.php/tafps/issue/archive

175. Usmonov Maxsud Tulqin o'g'li. O'QUVCHILARGA PYTHON TILIDA REKURSIV DASTURLASHNI O'RGATISH VA UNING SAMARALI USULLARI. THEORETICAL ASPECTS IN THE FORMATION OF PEDAGOGICAL SCIENCES International scientific-online conference. Том 2 № 2 (2023): Theoretical aspects in the formation of pedagogical sciences. http://www.econferences.ru/index.php/tafps/issue/archive

176. Usmonov Maxsud Tulqin o'g'li. KOMPYUTER VA AXBOROT TEXNOLOGIYALARIGA MUNOSABAT. THEORETICAL ASPECTS IN THE FORMATION OF PEDAGOGICAL SCIENCES International scientific-online conference. Том 2 № 2 (2023): Theoretical aspects in the formation of pedagogical sciences. http://www.econferences.ru/index.php/tafps/issue/archive

177. Usmonov Maxsud Tulqin o'g'li. GEOMETRIC MODELING AND VISUALIZATION OF 2D AND 3D FRACTAL STRUCTURED SHAPES. THEORETICAL ASPECTS IN THE FORMATION OF PEDAGOGICAL SCIENCES International scientific-online conference. Том 2 № 2 (2023): Theoretical aspects in the formation of pedagogical sciences. http://www.econferences.ru/index.php/tafps/issue/archive

178. Usmonov Maxsud Tulqin o'g'li. DETERMINANTLAR NAZARIYASI. Analytical Journal of Education and Development Volume: 02 Issue: 12 | Dec-2022 ISSN: 2181-2624 www.sciencebox.uz

179. Usmonov Maxsud Tulqin o'g'li. INDENTIFICATION AND AUTENTIFICATION. European Journal of Molecular & Clinical Medicine (EJMCM) ISSN: 2515-8260 Volume 10, Issue 01, 2023. https://www.ejmcm.com/

180. Usmonov Maxsud Tulqin o'g'li. Teylor qatori. Elementar funksiyalarni darajali qatorlarga yoyish. "Science and Education" Scientific Journal / Impact Factor 3.848 (SJIF) January 2023 / Volume 4 Issue 1. www.openscience.uz / ISSN 2181-0842.

181. Usmonov Maxsud Tulqin o'g'li. Sonli qatorlar. (Musbat hadli qatorlarning yaqinlashish teoremalari. Leybnis teoremasi, absolyut va shartli yaqinlashish.). "Science and Education" Scientific Journal / Impact Factor 3.848 (SJIF) January 2023 / Volume 4 Issue 1. www.openscience.uz / ISSN 2181-0842.

182. Usmonov Maxsud Tulqin o'g'li. Darajali qatorlar. Darajali qatorlarning yaqinlashish radiusi va sohasi. Teylor formulasi va qatori. "Science and Education" Scientific Journal / Impact Factor 3.848 (SJIF) January 2023 / Volume 4 Issue 1. www.openscience.uz / ISSN 2181-0842.

183. Usmonov Maxsud Tulqin o'g'li. Funksional ketma-ketliklar va qatorlarning tekis yaqinlashishi. Koshi kriteriysi. "Science and Education" Scientific Journal / Impact Factor 3.848 (SJIF) January 2023 / Volume 4 Issue 1. www.openscience.uz / ISSN 2181-0842.

184. Usmonov Maxsud Tulqin o'g'li. Furye qatori. Funksiyalarni Furye qatoriga yoyish. "Science and Education" Scientific Journal / Impact Factor 3.848 (SJIF) January 2023 / Volume 4 Issue 1. www.openscience.uz / ISSN 2181-0842.