



Проф.Др.
Эржан Челик
Табигый илимдер факультети
Колдонмо математика жана информатика бөлүмү
ercan.celik@manas.edu.kg

Билими

1	Бакалавр	1991 - 1995	Математика, Ататүрк университети
2	Магистр	1995 - 1998	математика, Ататүрк университети
3	Ph.D	1998 - 2002	математика, Ататүрк университети

Тил билүү деңгээли

#	Тил	Угуп түшүнүү	Окуп түшүнүү	Өз ара сүйлөшүү	Оозеки түшүндүрүү	Жазуу
1	Англисче	B1	B1	B1	B1	B1

A1: Beginner **A2:** Elementary **B1:** Pre-Intermediate **B2:** Intermediate **C1:** Upper-Intermediate **C2:** Advanced

Диссертациялары

1	Магистрдик диссертация	1998	Grobner Кээ бир жана Тиркемелер математика, Ататүрк университети
2	Доктордук диссертация	2002	Дифференциалдык-алгебралык теңдемелердин сандык чечимдери математика, Ататүрк университети

Илимий багыттары

Математика, Колдонмо математика

Илимий даражалары

1	Др.	2002	математика, Ататүрк университети
2	Доц.М.А.Др.	2002	математика, Ататүрк университети

3	Доц.Др.	2010	математика, Ататүрк университети
4	Проф.Др.	2016	математика, Ататүрк университети

Берген сабактары

МАТ-625 Айрым туундулуу дифференц-ык теңдем.сандык методдору

МАТ-627 Сызыктуу эмес дифференц-ык теңдем-ин тандалма темалары

LEE-800 Магистрдик диссертация

UME-101 Математикалык анализ i

UME-203 Дифференциалдык теңдемелер i

UME-207 Каржы математикасы

UME-301 Айрым туундулуу теңдемелер i

LEE-801 Илим изилдөө практикасы

UME-401 Математикалык моделдөө

LEE-610 Семинар 1

МАТ-407 Математикалык моделдөө

МАТ-900 Доктордук диссертация

МАТ-332 Айрым туундулуу дифференциалдык теңдемелер ii

UME-244 Ыктымалдыктар теориясы жана математикалык статистика

МАТ-614 Тереңдетилген сандык анализ

МАТ-642 Чектелген элементтер ыкмасы

UME-204 Дифференциалдык теңдемелер ii

UME-407 Математикалык моделдүү

UME-451 Квалификациялык бүтүрүү иши i

UME-452 Квалификациялык бүтүрүү иши ii

UME-234 Ыктымалдыктар теориясы жана математикалык статистика

МАТ-500 Магистрдик диссертация

МАТ-502 Илим изилдөө практикасы

UME-416 Айрым туундулуу дифф.теңдемелерди сандык чыгаруу

UME-332 Айрым туундулуу теңдемелер ii

UME-335 Сандык анализ i

UME-352 Колдонмо графтар теориясы

МАТ-521 Дифференциалдык теңдемелердин тереңдетилген курсу

FBE-800 Магистрдик диссертация

МАТ-234 Дифференциалдык теңдемелер ii

МАТ-530 Интегралдык теңдемердин системалары

Административдик кызматтары

#	Кызматы	Бөлүм	Башталышы	Бүтүшү
1	Бөлүм башчысы	Колдонмо математика жана информатика бөлүмү	06.07.2023	-
2	ÖSYM башчысы	Студент тандоо жана жайгаштыруу борбору	19.09.2023	-

Жетекчилик кылган диссертация темалары

1	Магистр Ноориза Мырзабекова 2023 LAPLACE-PADE METODUYLA LINEER VE LINEER OLMAYAN DIFERANSİYEL-CEBRİSEL DENK.
---	---

SCI, SCI-E, SSCI жана ANCI индекстүү журналдарда басылган макалалары

1. N.Y.Aksoy, E.ÇELİK, M.Zengin. (2024). A Necessary Optimality Condition on the Control of a Charged Particle. Symmetry, Symmetry 2024(16), 637. DOI: 10.3390/sym16060637. <https://www.webofscience.com/wos/woscc/full-record/WOS:001255922900001>.
2. O.Taşbozan, E.ÇELİK, A.Kurt, L.Akinyemi. (2024). Investigation on the new exact solutions of generalized Rosenau-Kawahara-RLW equation with p-th order nonlinearity occurring in ocean engineering models. Applied Mathematics-A Journal of Chinese Universities, 39(4), 642-653. DOI: 10.1007/s11766-024-4631-5. -.
3. A.Fidan, E.PİŞKİN, E.ÇELİK. (2024). Existence,Decay,andBlow-upofSolutionsforaWeighted m-BiharmonicEquationwithNonlinearDampingand SourceTerms. Journal of Function Spaces, Volume 2024(ID 5866792), 1-8. DOI: 10.1155/2024/5866792. -.
4. A.O.Akdemir, s.Aslan, M.A.Dokuyucu, E.ÇELİK. (2023). Exponentially Convex Functions on the Coordinates and Novel Estimations via Riemann-Liouville Fractional Operator. Journal of functional spaces, 2023(ID4310880), 1-9. DOI: 10.1155/2023/4310880. <https://www.webofscience.com/wos/woscc/full-record/WOS:000965994100004>.
5. A.Aykut, E.ÇELİK. (2023). The Consecutive Substitution Method for Boundary Value Problems (BVPs) with Retarded Argument. JOURNAL OF APPLIED MATHEMATICS, 12 Apr 2023(ID3226604), 1-5. DOI: 10.1155/2023/3226604. <https://www.webofscience.com/wos/woscc/full-record/WOS:000974779000001>.
6. S.Ş.Ş.KILIÇ, E.ÇELİK, H.Bulut. (2023). Solitary wave solutions to some nonlinear conformable partial diferential equations. Optical and Quantum Electronics, 55(-), 695. DOI: 10.1007/s11082-023-04983-7. -.
7. E.ÇELİK, R.Najafi, N.Uyanık. (2023). Invariant Solutions and Conservation Laws of the Time-Fractional Telegraph Equation. Advances in Mathematical Physics, 2023(Article ID 1294070), 1294070. DOI: <https://doi.org/10.1155/2023/1294070>. <https://www.webofscience.com/wos/woscc/full-record/WOS:001065031500001>.

8. N.YILMAZ, E.PIŞKİN, E.ÇELİK. (2023). Well-Posedness and Blow-Up of Solutions for a Variable Exponent Nonlinear Petrovsky Equation. *Advances in Mathematical Physics*, Volume 2023(Article ID 8866861), 8866861. DOI: 10.1155/2023/8866861. <https://www.webofscience.com/wos/woscc/full-record/WOS:001112438200001>.
9. N.Y.AKSOY, E.ÇELİK, M.ZENGİN. (2022). On optimal control of a charged particle in a varying electromagnetic field. *WAVES IN RANDOM AND COMPLEX MEDIA*, -(), -. DOI: 10.1080/17455030.2022.2142695. <https://www.webofscience.com/wos/woscc/full-record/WOS:000881378000001>.
10. N.M.Lanbaran, E.ÇELİK, Ö.KOTAN. (2022). Using Fuzzy-Rough Subset Evaluation for Feature Selection and Naive Bayes to Classify the Parkinson's Disease. *MISKOLC MATHEMATICAL NOTES*, 23(2), 787-800. DOI: 10.18514/MMN.2022.3855. -.
11. S.Ş.Ş.KILIÇ, E.ÇELİK. (2022). Complex solutions to the higher-order nonlinear boussinesq type wave equation transform. *Ricerche di Matematica (A Journal of Pure and Applied Mathematics)*, -(), -. DOI: 10.1007/s11587-022-00698-1. <https://www.webofscience.com/wos/woscc/full-record/WOS:000791645500001>.
12. T.Yazgan, E.İlhan, E.ÇELİK, H.Bulut. (2022). On the new hyperbolic wave solutions to Wu-Zhang system models. *OPTICAL AND QUANTUM ELECTRONICS*, 54(5), 298. DOI: 10.1007/s11082-022-03683-y. <https://www.webofscience.com/wos/woscc/full-record/WOS:000783044000010>.
13. A.ENGİN, Y.SARAÇ, E.ÇELİK. (2022). ON OPTIMAL CONTROL OF THE INITIAL VELOCITY OF AN EULER-BERNOULLI BEAM SYSTEM. *THERMAL SCIENCE*, 22(2), 735-744. DOI: 10.2298/TSCI22S2735E. <https://www.webofscience.com/wos/woscc/full-record/WOS:000921231700025>.
14. H.GÜNDÜZ, E.ÇELİK. (2022). H-infinity-NORM EVALUATION FOR A TRANSFER MATRIX VIA BISECTION ALGORITHM. *THERMAL SCIENCE*, 22(2), 745-751. DOI: 10.2298/TSCI22S2745G. <https://www.webofscience.com/wos/woscc/full-record/WOS:000921231700026>.

Башка журналдарда басылган макалалары

1. H.GÜNDÜZ, M.Karabacak, E.ÇELİK. (2025). H^∞ -Norm Evaluation of Transfer Matrices of Dynamical Systems via Extended Balanced Singular Perturbation Method. *Gazi University Journal of Science*, 38(1), -. -.
2. N.Mirzabekova, E.ÇELİK. (2024). The Analytical Solution of Linear and Non-Linear Differential Algebraic Equations (DAEs) with Laplace-Padé Series Method. *MANAS Journal of Engineering*, 12(1), 129-134. <https://dergipark.org.tr/tr/pub/mjen/issue/85207>.
3. H.GÜNDÜZ, M.Karabacak, E.ÇELİK. (2024). A comparative view to H^∞ -norm of transfer functions of linear DAEs. *An International Journal of Optimization and Control: Theories & Applications*, 14(4), 346. -.
4. D.Arslan, E.ÇELİK. (2024). An approximate solution of singularly perturbed problem on uniform mesh. *An International Journal of Optimization and Control: Theories & Applications*, 14(1), 74-80. <https://ijocta.org/index.php/files/article/view/1414/446>.
5. H.GÜNERHAN, M.K.A.Kaabar, E.ÇELİK. (2023). Novel Analytical and Approximate-Analytical Methods for Solving the Nonlinear Fractional Smoking Mathematical Model. *Sigma Journal of Engineering and Natural Sciences*, 41(2), 331-343. DOI: 10.14744/sigma.2021.00073. <https://www.webofscience.com/wos/woscc/full-record/WOS:000983868500004>.
6. N.Y.Aksoy, E.ÇELİK, M.E.Dadaş. (2023). The solvability of the optimal control problem for a nonlinear Schrödinger equation. *An International Journal of Optimization and Control: Theories & Applications*, 13(2), 269-276. -.
7. T.YAZGAN, G.YEL, E.ÇELİK, H.BULUT. (2023). On Survey of the Some Wave Solutions of the Non-Linear Schrödinger Equation (NLSE) in Infinite Water Depth. *Gazi Journal of*

Engineering Sciences, 36(2), 819-843. -.

8. E.ÇELİK, N.YALÇIN. (2023). A new approach for the bigeometric newton method. MANAS Journal of Engineering , 11(2), 235-240 .
<https://dergipark.org.tr/tr/pub/mjen/issue/81663/1372839>.
9. E.ÇELİK, Ö.KOTAN. (2022). The Solution of Linear Volterra Integral Equation of the First Kind with Aboodh Transform. Journal of Abstract and Computational Mathematics, 7(1), 1-9.
<file:///C:/Users/User/Downloads/JACM-2022-7-1.15580.pdf>.

Докладдары

1. E.ÇELİK, U.DEMİRBİLEK, H.Bulut. NEW SOLUTIONS FOR A NONLINEAR COMPLEX HYPERBOLIC SCHRÖDINGER DYNAMICAL EQUATION WITH A TRUNCATED M- FRACTIONAL. II. International Congress On Finance, Economy And Sustainable Policies, 2024. DOI: -. <https://icofesp.com>.
2. M.Z.KAYA, E.ÇELİK, M.KARABACAK. Solution of Fractional Order Partial Differential Equations with Hosoya Neural Network. The Eighth International Conference on Computational Mathematics and Engineering, 2024. DOI: -. <https://www.cmescongress.org>.
3. H.GÜNDÜZ, M.Karabacak, E.ÇELİK. The Computation of H-infinity Norm of Transfer Functions of Linear DAEs via Two-Step Method. The Eighth International Conference on Computational Mathematics and Engineering, 2024. DOI: -. <https://www.cmescongress.org>.
4. U.Demirbilek, E.ÇELİK, H.Bulut. Investigation of Exact Solutions in (2+1)-D Generalized Fifth-Order KdV in Nonlinear Optics. III. International Congress On Finance, Economy And Sustainable Policies (ICOFE, 2024. DOI: -. <https://icofesp.com/>.
5. E.ÇELİK, H.Gündüz, M.Karabacak. Computing of H^∞ -Norm of Transfer Functions of DAEs by Extended Balanced Singular Perturbation. The Seventh International Conference on Computational Mathematics and Engineerin, 2023. <https://www.cmescongress.org/>.
6. E.ÇELİK, N.Mirzabekova. The Solution of Bonlinear Chemical Akzo Nobel Problem Modeled as Differential-Algebraic Equations(DAEs) with Laplace-Padé Series Method. The Seventh International Conference on Computational Mathematics and Engineerin, 2023. <https://www.cmescongress.org/>.
7. E.ÇELİK, N.Y.Aksoy, M.Zengin. The Necessary Optimality Condition On a Control Problem fort the Schrödinger Equation. The Seventh International Conference on Computational Mathematics and Engineerin, 2023. <https://www.cmescongress.org/>.
8. E.ÇELİK, M.Z.Kaya, M.Karabacak. Solutions of Partial Differential Equations with Hosoya Neural Network. The Seventh International Conference on Computational Mathematics and Engineerin, 2023. <https://www.cmescongress.org/>.
9. E.ÇELİK, E.Ilhan, M.Yigider, H.Bulut. Some New Solutions of Time Fractional Resonant Daveys- Tewartson Equations,. The Seventh International Conference on Computational Mathematics and Engineerin, 2023. <https://www.cmescongress.org/>.
10. E.ÇELİK, N.M.LANBARAN, M.YİĞİDER. Quantum fuzzy based on deep reinforcement method for optimization of energy management systems. 7th International Conference on Mathematics: An Istanbul Meeting for World Math, 2023. <https://icomath.com/?target=sayfalar&id=2>.
11. E.ÇELİK, E.KHODADADI, M.KARABACAK. A New Score Function Based on Pythagorean Fuzzy Set to Multiple Criteria Group Decision-Making. I. International Congress On Finance, Economy And Sustainable Policies (ICOFESP, 2023. DOI: -. <https://www.kongreuzmani.com/site.html?https://icofesp.com>.
12. H.BULUT, U.DEMİRBİLEK, E.ÇELİK. Investigation of solitary wave solutions of a nonlinear mathematical model. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. DOI: -. <https://www.ohu.edu.tr/turk-cose-en>.

13. S.ESMER, E.ÇELİK. Ortaöğretim öğrencilerinin matematik dersine karşı tutumları üzerine bir araştırma. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. DOI: -. <https://www.ohu.edu.tr/turk-cose-en>.
14. A.Irmak, E.ÇELİK, S.Ş.Ş.Kılıç. On Solving the Heat Equation Using the Jacobi Method . TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. DOI: -. <https://www.ohu.edu.tr/turk-cose-en>.
15. H.G.Yıldız, H.Günerhan, E.ÇELİK. Analytical approximate solution of fractional order SIR epidemic model. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. <https://www.ohu.edu.tr/turk-cose-en>.
16. N.Mirzabekova, E.ÇELİK. The numerical solution of higher order two point boundary value problems with Padé Series. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. <https://www.ohu.edu.tr/turk-cose-en>.
17. N.Yalçın, E.ÇELİK. Newton's method in bigeometric analysis. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. <https://www.ohu.edu.tr/turk-cose-en>.
18. M.Z.Kara, E.ÇELİK, M.Karabacak. Numerical solution of fractional order advection reaction diffusion equation with Hosoya neural network. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. <https://www.ohu.edu.tr/turk-cose-en>.
19. F.Düşünceli, E.ÇELİK. Fractional approach for diffusion equations arising in oil pollution using the efficient scheme. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. <https://www.ohu.edu.tr/turk-cose-en>.
20. S.Esmer, E.ÇELİK. A research on secondary students attitudes to mathematics course. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2023. <https://www.ohu.edu.tr/turk-cose-en>.
21. E.ÇELİK, H.Bulut, S.Ibrahim, T.A.Sulaiman, A.Yusuf. SOLUTIONS TO THE (N+1)-DIMENSIONAL NLSE EQUATION WITH M-TRUNCATED DERIVATIVE. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
22. E.ÇELİK, S.Ş.Ş.KILIÇ, H.Bulut. SOLUTION OF (2+1)-DIMENSIONAL QUANTUM ZAKHAROVKUZNETSOV EQUATIONS USING THE THE MODIFIED $\exp(-\Omega(\xi))$ -EXPANSION FUNCTION METHOD, . The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
23. E.ÇELİK, B.Karaağaç, A.Esen, E.Pindza. NUMERICAL DYNAMICS OF VARIABLE ORDER FRACTIONAL BENNEY-LIN EQUATION VIA FINITE ELEMENT COLLOCATION METHOD. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
24. E.ÇELİK, E.Sefidgar, B.Shiri. COMPLEX TRANSFORM METHOD FOR SYSTEM OF FRACTIONAL DIFFERENTIAL EQUATIONS AND APPLICATIONS. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
25. E.ÇELİK, H.Gündüz. COMPUTATION OF H_∞ -NORM OF A TRANSFER MATRIX VIA BISECTION ALGORITHM. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
26. E.ÇELİK, T.Tazğan, E.İlhan, H.Bulut. THE SINE-GORDON EXPANSION METHOD AND THE MODIFIED EXPANSION FUNCTION METHOD FOR NEW HYPERBOLIC WAVE SOLUTIONS OF WU-ZHANG SYSTEM MODELS. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
27. E.ÇELİK, I.Okumus. THE GROUP LAWS ON THE ALGEBRAIC CURVES. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
28. E.ÇELİK, N.Y.Aksoy, M.Zengin. AN OPTIMAL CONTROL PROBLEM FOR n-DIMENSIONAL

SCHRODINGER EQUATION WITH SPECIFIC GRADIENT TERM. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.

29. E.ÇELİK, E.Khodadadi, M.Karabacak. PREDICTOR-CORRECTOR (m+1) –STEP METHOD FOR SOLVING FUZZY ORDINARY DIFFERENTIAL EQUATIONS BY USING THE INTERPOLATION OF FUZZY NUMBER. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
30. E.ÇELİK, E.Khodadadi, M.Karabacak. NUMERICAL SOLUTION OF FUZZY DIFFERENTIAL EQUATIONS BY TWO STEP MODIFIED SIMPSON RULE. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
31. E.ÇELİK, A.Ayktut. THE CONSECUTIVE SUBSTITUTION METHOD FOR THE BOUNDARY VALUE PROBLEM. The Sixth International Conference on Computational Mathematics and Engineering , 2022. <https://2022.cmescongress.org/>.
32. E.ÇELİK, N.Mirzabekova. The Solution of Linear and Non-Linear Differential-Algebraic Equations(DAEs) with Laplace-Padé Series Method. 6th International Conference on Advances in Natural and Applied Sciences, 2022. <https://icanas.agri.edu.tr/>.
33. H.GÜNDÜZ, E.ÇELİK, M.KARABACAK. A comparative view to H_{∞} -norm of transfer functions of linear DAEs. TURK-COSE 2023 V. International Turkic World Congress on Science and Engineering, 2003. <https://www.ohu.edu.tr/turk-cose-en>.

Долбоорлору

1. Э.Челик, М.Карабажак, Н.Мирзабекова. Сызыктуу жана сызыктуу эмес дифференциалдык-алгебралык теңдемелер системасы түрдө моделденген физикалык жана химиялык маселелердин Лаплас-Паде катар ыкмасы менен аналитикалык же сандык чыгарылыштарын табуу. КТМУ-ВАР-2023.ФВ.02.
2. Э.Челик, Х.Булут, У.Демирбилек, Э.Абылаева, С.Чолак, М.Э.Батухан. (2+1)-өлчөмдүү Параксиалдык толкун жана (4+1)-өлчөмдүү Фокас толкун теңдемелеринин дискреттүү М-бөлчөктөрүнүн динамикалык солитондук чечимдери . КТМУ-ВАР-2024.Ф8.20.
3. Э.Челик, М.Карабажак, М.З.Кая, Э.Абылаева, С.Чолак, М.Э.Батухан. Хосоя нейрон тармактары менен жекече туундулуу дифференциалдык теңдемелерди чыгаруу. КТМУ-ВАР-2024.Ф8.19.