

# MURAT ALAN

## PROF.

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## Education

Doctorate 2000 - 2004	Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey
Postgraduate 1998 - 2000	Yildiz Technical University, Graduate School Of Natural And Applied Sciences, - , Turkey
Undergraduate 1989 - 1994	Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, Turkey

## Academic Titles / Tasks

Associate Professor 2014 - Continues	Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics
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## Supported Projects

1. ALAN M., ŞİMŞEK ALAN K., Project Supported by Higher Education Institutions, Logaritmalı Doğrusal Formlar ve Diofant Denklemlere Uygulamaları, 2021 - 2023
2. ALAN M., Birath R. G., Project Supported by Higher Education Institutions, Bazı Üstel Diofant Denklemler ve Çözüm Yöntemleri, 2021 - 2022
3. ALAN M., ÖZBULUR E., Project Supported by Higher Education Institutions, Tektürlü Çarpanlarına Ayrılabilen Modüller, 2016 - 2019
4. ALAN M., Project Supported by Higher Education Institutions, Sonlu Cisimler Üzerindeki Polinomların Çarpanlara Ayrılışı, 2016 - 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

1. **Fibonacci numbers as mixed concatenations of Fibonacci and Lucas numbers**  
Altassan A., ALAN M.  
Mathematica Slovaca, vol.74, no.3, pp.563-576, 2024 (SCI-Expanded)
2. **MERSENNE NUMBERS IN GENERALIZED LUCAS SEQUENCES**  
Altassan A., ALAN M.  
Comptes Rendus de L'Academie Bulgare des Sciences, vol.77, no.1, pp.3-10, 2024 (SCI-Expanded)
3. **On Quasi Maximal Ideals of Commutative Rings**

Alan M., Kılıç M., Koç S., Tekir Ü.

DOKLADI NA B"LGARSKATA AKADEMIA NA NAUKITE, vol.76, no.2, pp.1801-1810, 2023 (SCI-Expanded)

4. **Products of three Fibonacci numbers that are repdigits**  
Alan M., Alan K. S.  
Advanced Studies: Euro-Tbilisi Mathematical Journal, vol.16, no.4, pp.57-66, 2023 (SCI-Expanded)
5. **Almost Repdigit k-Fibonacci Numbers with an Application of k-Generalized Fibonacci Sequences**  
Altassan A., Alan M.  
MATHEMATICS, vol.11, no.2, pp.1-16, 2023 (SCI-Expanded)
6. **On Concatenations of Fibonacci and Lucas Numbers**  
ALAN M.  
BULLETIN OF THE IRANIAN MATHEMATICAL SOCIETY, vol.48, no.5, pp.2725-2741, 2022 (SCI-Expanded)
7. **On the exponential Diophantine equation  $m(x) + (m+1)(y) = (1+m \text{ plus } m(2))(z)$**   
ALAN M.  
ANALELE STIINTIFICE ALE UNIVERSITATII OVIDIUS CONSTANTA-SERIA MATEMATICA, vol.29, no.3, pp.23-32, 2021 (SCI-Expanded)
8. **On the Diophantine equation  $x(2)+3(a)41(b) = y(n)$**   
ALAN M., Zengin Ü.  
PERIODICA MATHEMATICA HUNGARICA, vol.81, no.2, pp.284-291, 2020 (SCI-Expanded)
9. **On the Exponential Diophantine Equation  $(m(2) + m+1)(x) + m(y) = (m+1)(z)$**   
ALAN M.  
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.17, no.6, 2020 (SCI-Expanded)
10. **On the exponential Diophantine equation  $(18m(2)+1)(x) + (7m(2)-1)(y) = (5m)(z)$**   
ALAN M.  
TURKISH JOURNAL OF MATHEMATICS, vol.42, no.4, pp.1990-1999, 2018 (SCI-Expanded)
11. **Half-factorial domains and quadratic orders**  
ALAN M.  
INTERNATIONAL JOURNAL OF NUMBER THEORY, vol.12, no.2, pp.465-472, 2016 (SCI-Expanded)
12. **ON FINITE FACTORIZATION RINGS**  
Alan M.  
COMMUNICATIONS IN ALGEBRA, vol.40, no.11, pp.4089-4099, 2012 (SCI-Expanded)

## Articles Published in Other Journals

1. **On the Diophantine Equation  $\left(9d^2 + 1\right)^x + \left(16d^2 - 1\right)^y = (5d)^z$  Regarding Terai's Conjecture**  
Alan M., T.  
Journal of New Theory, no.47, pp.72-84, 2024 (Peer-Reviewed Journal)
2. **Mersenne numbers as a difference of two Lucas numbers**  
Murat A.  
COMMENTATIONES MATHEMATICAE UNIVERSITATIS CAROLINAE, vol.63, no.3, pp.269-276, 2023 (ESCI)
3. **On the diophantine equation  $x^2+2^a3^b7^3^c=y^n$**   
Alan M., Aydin M.  
ARCHIVUM MATHEMATICUM, vol.59, no.5, pp.411-420, 2023 (ESCI)
4. **Mersenne numbers which are products of two Pell numbers**  
Alan M., Şimşek Alan K.  
BOLETIN DE LA SOCIEDAD MATEMATICA MEXICANA, vol.28, no.2, 2022 (Peer-Reviewed Journal)
5. **On the Exponential Diophantine Equation  $(6m^2+1)^x+(3m^2-1)^y=(3m)^z$**   
ALAN M., BİRATLI R. G.  
Fundamental journal of mathematics and applications (Online), vol.5, no.3, pp.174-180, 2022 (Peer-Reviewed Journal)

6. **A note on construction of irreducible polynomials over finite fields with characteristic 2**  
Alan M., Duman B.  
INTERNATIONAL JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.115, pp.529-532, 2017 (Peer-Reviewed Journal)
7. **On unique factorization modules**  
ALAN M., Özbülür E.  
International Journal of Pure and Applied Mathematics, vol.108, no.1, pp.23-28, 2016 (Scopus)
8. **The Half-Factorial Property in the Ring  $A+XI[X]$  where A Is a UFR**  
ALAN M., Ağargün A.  
International Journal of Mathematics, Game Theory and Algebra, vol.15, no.2, pp.133-138, 2006 (Peer-Reviewed Journal)
9. **Factorization Properties in Polynomial Extension of UFR's**  
Alan M.  
Journal of Engineering and Natural Sciences - Mühendislik ve Fen Bilimleri Dergisi, vol.23, no.2, pp.95-100, 2005 (Peer-Reviewed Journal)
10. **some factorization properties in commutative rings**  
ALAN M., AĞARGÜN A. G.  
int. j. pure appl. math, vol.18, pp.349-358, 2005 (Peer-Reviewed Journal)

## Books

1. **Cebir**  
Ersoy B. A., Ağargün G., Alan M., Aygör N., Oral K. H.  
Birsen, İstanbul, 2016
2. **soyut cebir**  
AĞARGÜN A. G., ERSOY B. A., ALAN M., ORAL K. H., AYGÖR N.  
birsen, İstanbul, 2015
3. **Soyut Cebir II**  
Ersoy B. A., Ağargün G., Aygör N., Alan M.  
Ytu Vakfı Yayınları, İstanbul, 2002

## Papers Published in Refereed Scientific Meetings

1. **Terai Sanısı ile İlgili Bazı Özel Durumların İncelenmes**  
Çokoksen T., Alan M.  
18. International Scientific Tesearch Congres, UBAK, İstanbul, Turkey, 16 December 2023
2. **Solutions of Some Generalized Pell Equations with Recurrence Relations**  
Alan M., Erten N.  
2nd International Conference on Mathematical Advances and Applications, İstanbul, Turkey, 3 - 05 May 2019, pp.78
3. **Solutions of Some Generalized Ramanujan-Nagell Equations**  
Alan M., Zengin U.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, İstanbul, Turkey, 10 - 13 March 2019, pp.1
4. **Experiments with Terai's Conjecture**  
ALAN M.  
2. International Conference of Mathematical Sciences, İstanbul, Turkey, 31 July 2018, pp.32
5. **Diophantine Equations Involving Odd Prime Powers**  
ALAN M., Yoğurtcu M.

- International Conference on Mathematical Advances and Applications, İstanbul, Turkey, 11 May 2018, pp.118
6. **On The Positive Integer Solutions Of Some Exponential Diophantine Equations**  
ALAN M.  
International Conference on Mathematics and Engineering, ICOME2017, 10 - 12 May 2017
  7. **A Note on iterative construction of irreducible polynomials over finite fields with characteristic 2**  
ALAN M., Duman B.  
International Congress on Fundamental and Applied Sciences 2016 (ICFAS2016), İstanbul, Turkey, 22 August 2016, pp.117
  8. **Properties of U-decomposition in modules**  
ALAN M., Özbülür E.  
International Congress on Fundamental and Applied Sciences 2016 (ICFAS2016), İstanbul, Turkey, 22 August 2016, pp.116
  9. **A Note On Construction of Irreducible Polynomials Over Finite Fields with Characteristic 2**  
ALAN M., Duman B.  
2nd International Conference on Engineering and Natural Sciences (ICENS 2016), Saray Bosna, Bosnia And Herzegovina, 24 May 2016, pp.713
  10. **Factorization In Modules**  
ALAN M., Özbülür E.  
2nd International Conference on Engineering and Natural Sciences (ICENS 2016), Saray Bosna, Bosnia And Herzegovina, 24 May 2016, pp.340
  11. **THE COMPARISON OF TWO FINNISH AND TURKISH HIGHSCHOOL MATHEMATICS TEXBOOKS**  
TAŞPINAR ŞENER Z., arıkan e. e., ÜNAL H., ALAN M.  
INTERNATIONAL SYMPOSIUM ON CHANGES AND NEW TRENDS IN EDUCATION, Konya, Turkey, 22 November 2013, pp.240-241
  12. **Reel Kuadratik Cebirsel Tamsayılar Halkasında Yarı Çarpanlarına Ayrılabilen Bölge Özelliği**  
ALAN M.  
XXV. Ulusal Matematik Sempozyumu, 01 September 2012
  13. **Sıfır Bölümlü Sonlu Çarpanlarına Ayrılabilen Halkalar Üzerindeki Polinom Ve Kuvvet Serileri Halkaları**  
ALAN M.  
XXIV. Ulusal Matematik Sempozyumu, Uludağ Üniv., Bursa, 01 September 2011
  14. **Nonunique Factorization Properties and Polynomial Rings over Finite Local Rings**  
ALAN M.  
ICAAA, İstanbul, 01 June 2011
  15. **Halkalarda Bazı Çarpanlara Ayırma Özellikleri**  
ALAN M.  
XVII. Ulusal Matematik Sempozyumu, Bolu, 01 August 2004
  16. **MANTIK, MATEMATİK ve FELSEFE I.Ulusal Sempozyumu**  
ALAN M.

## Supervised Theses

- Alan M., Sürekli kesirler ve bazı diofant denklemlerin çözümleri, Postgraduate, N.ERTEN(Student), 2021  
Alan M., Bazı üstel diofant denklemler ve çözüm yöntemleri, Postgraduate, R.GİZEM(Student), 2021  
Alan M., Ramanujan-Nagell denklemleri ve bazı genelleştirmeleri, Postgraduate, U.ZENGİN(Student), 2019  
Alan M., Tek türlü çarpanlarına ayrılabilen modüller, Postgraduate, E.ÖZBULUR(Student), 2019  
Alan M., Değişmeli halkalarda çarpanlara ayrılış ve modüller, Postgraduate, B.GÜLLE(Student), 2018  
Alan M., Sonlu cisimler üzerindeki polinomların çarpanlara ayrılışı, Postgraduate, B.DUMAN(Student), 2017

## Metrics

Publication: 41

Citation (WoS): 2

Citation (Scopus): 19

H-Index (WoS): 1

H-Index (Scopus): 2

## Research Areas

Commutative Rings and Algebras, Number Theory