

## Assoc. Prof. FATİH YILMAZ

### Personal Information

**Email:** fatih.yilmaz@hbv.edu.tr

**Web:** <https://avesis.hacibayram.edu.tr/fatih.yilmaz>

### International Researcher IDs

ORCID: 0000-0001-7873-1979

ScopusID: 36188815900

Yoksis Researcher ID: 55070

### Education Information

Doctorate, Selcuk University, Fen Bilimleri Enstitüsü, Matematik (Dr), Turkey 2009 - 2013

Postgraduate, Selcuk University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Turkey 2007 - 2009

Undergraduate, Selcuk University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 2003 - 2007

### Dissertations

Doctorate, k-Mertebeli Lineer Rekürans Bağintısıyla Tanımlı Sayı Dizileri ve Özellikleri, Selcuk University, Fen Bilimleri Enstitüsü, Matematik (Dr), 2013

Postgraduate, Sayı Dizilerinin Genelleştirilmesi, Selcuk University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 2009

### Academic Titles / Tasks

Associate Professor, Ankara Hacı Bayram Veli University, Polatlı Fen-Edebiyat Fakültesi, Matematik Bölümü, 2018 - Continues

Assistant Professor, Gazi University, Polatlı Fen-Edebiyat Fakültesi, Matematik Bölümü, 2014 - Continues

Research Assistant, Selcuk University, Fen Fakültesi, Matematik Bölümü, 2008 - 2014

### Academic and Administrative Experience

Ankara Hacı Bayram Veli University, 2019 - Continues

Ankara Hacı Bayram Veli University, 2019 - Continues

Gazi University, 2014 - Continues

Gazi University, 2014 - Continues

### Courses

SOYUT MATEMATİK I-II, Undergraduate, 2018 - 2019

LİNEER CEBİR I-II, Undergraduate, 2018 - 2019

CEBİR I-II, Undergraduate, 2018 - 2019

SOYUT MATEMATİK I, Undergraduate, 2017 - 2018, 2016 - 2017, 2014 - 2015

CEBİR I, Undergraduate, 2017 - 2018, 2016 - 2017, 2014 - 2015

LİNEER CEBİR, Undergraduate, 2017 - 2018, 2016 - 2017  
SOYUT CEBİR VE SAYILAR TEORİSİ I, Undergraduate, 2016 - 2017, 2014 - 2015  
Cebir II, Undergraduate, 2014 - 2015, 2013 - 2014  
Soyut Matematik II, Undergraduate, 2014 - 2015  
Mesleki İngilizce II, Undergraduate, 2014 - 2015, 2013 - 2014  
Genel Matematik II, Undergraduate, 2014 - 2015  
Genel Matematik I, Undergraduate, 2014 - 2015  
Mesleki İngilizce, Undergraduate, 2014 - 2015  
Rekürans Bağlantıları Fibonacci Lucas Sayıları I, Postgraduate, 2014 - 2015  
Soyut Cebir ve Sayılar Teorisi II, Undergraduate, 2013 - 2014

## Advising Theses

YILMAZ F., Blok matris ve balancing sayıları, Postgraduate, V.HEVEŞ(Student), 2020  
YILMAZ F., Bazı özel band matrisler, sayı dizileri ve özellikleri, Doctorate, E.KIRKLAR(Student), 2019

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

- I. **De moivre's and euler formulas for matrices of hybrid numbers**  
Akbiyik M., Akbiyik S. Y. , Karaca E., YILMAZ F.  
Axioms, vol.10, no.3, 2021 (SCI-Expanded)
- II. **A combined approach to Perrin and Padovan hybrid sequences**  
Jafari Petroudi S. H. , Pirouz M., Karaca E., YILMAZ F.  
Heliyon, vol.7, no.8, 2021 (SCI-Expanded)
- III. **One type of symmetric matrix with harmonic pell entries, its inversion, permanents and some norms**  
Akbiyik S. Y. , Akbiyik M., YILMAZ F.  
Mathematics, vol.9, no.5, pp.1-15, 2021 (SCI-Expanded)
- IV. **A unified approach: Split quaternions with quaternion coefficients and quaternions with dual coefficients**  
Karaca E., YILMAZ F., ÇALIŞKAN M.  
Mathematics, vol.8, no.12, pp.1-15, 2020 (SCI-Expanded)
- V. **Some results on one type of graph family with some special number sequences**  
Kirklar E., Maden A. D. , YILMAZ F.  
AKCE International Journal of Graphs and Combinatorics, vol.17, no.3, pp.749-754, 2020 (SCI-Expanded)
- VI. **On linear algebra of balance-binomial graphs**  
Kar K., YILMAZ F.  
DISCRETE APPLIED MATHEMATICS, vol.243, pp.290-296, 2018 (SCI-Expanded)
- VII. **Some comments on k-tridiagonal matrices: Determinant, spectra, and inversion**  
da Fonseca C. M. , YILMAZ F.  
APPLIED MATHEMATICS AND COMPUTATION, vol.270, pp.644-647, 2015 (SCI-Expanded)
- VIII. **A note on a fast breakdown-free algorithm for computing the determinants and the permanents of k-tridiagonal matrices**  
Sogabe T., YILMAZ F.  
APPLIED MATHEMATICS AND COMPUTATION, vol.249, pp.98-102, 2014 (SCI-Expanded)
- IX. **The eigenvalues of a family of persymmetric anti-tridiagonal 2-Hankel matrices**  
AKBULAK M., da Fonseca C. M. , YILMAZ F.  
APPLIED MATHEMATICS AND COMPUTATION, vol.225, pp.352-357, 2013 (SCI-Expanded)
- X. **The Adjacency Matrix of One Type of Directed Graph and the Jacobsthal Numbers and Their Determinantal Representation**

- YILMAZ F., BOZKURT D.  
 JOURNAL OF APPLIED MATHEMATICS, vol.2012, 2012 (SCI-Expanded)
- XI. **Some Properties of Padovan Sequence by Matrix Methods**  
 YILMAZ F., BOZKURT D.  
 ARS COMBINATORIA, vol.104, pp.149-160, 2012 (SCI-Expanded)
- XII. **Hessenberg matrices and the Pell and Perrin numbers**  
 YILMAZ F., BOZKURT D.  
 JOURNAL OF NUMBER THEORY, vol.131, no.8, pp.1390-1396, 2011 (SCI-Expanded)
- XIII. **A FORMULA FOR COMPUTING INTEGER POWERS FOR ONE TYPE OF TRIDIAGONAL MATRIX**  
 Kiyak H., Gurses I., YILMAZ F., Bozkurt D.  
 HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.39, no.3, pp.351-363, 2010 (SCI-Expanded)

### Articles Published in Other Journals

- I. **The bi-periodic Horadam sequence and some perturbed tridiagonal 2-Toeplitz matrices: A unified approach**  
 Anđelić M., da Fonseca C. M., YILMAZ F.  
 Heliyon, vol.8, no.2, 2022 (ESCI)
- II. **SOME SPECIAL MATRICES WITH HARMONIC NUMBERS**  
 JAFARI PETROUDI S. H., PİROUZ M., AKBIYIK M., YILMAZ F.  
 Konuralp Journal of Mathematics, 2021 (Peer-Reviewed Journal)
- III. **On bipartite graphs and the Fibonacci numbers**  
 YILMAZ F.  
 Notes on Number Theory and Discrete Mathematics, 2019 (ESCI)
- IV. **A General Formula for Determinants and Inverses of Circulant Matrices with Third Order Recurrences**  
 KIRKLAR E., YILMAZ F.  
 Mathematical Sciences and Applications E-Notes, 2019 (Peer-Reviewed Journal)
- V. **On The Pfaffians and Determinants of Some Skew-Centrosymmetric Matrices**  
 YILMAZ F., SOGABE T., KIRKLAR E.  
 Journal of Integer Sequences, vol.20, no.17.4.6, pp.1-9, 2017 (Scopus)
- VI. **Lower k Hessenberg Matrices and k Fibonacci Fibonacci p and Pell p i Numbers**  
 CARLOS MARTINS DA F., SOGABE T., YILMAZ F.  
 Gen. Math. Notes, vol.31, pp.10-17, 2015 (Peer-Reviewed Journal)
- VII. **On the determinants of some kinds of circulant type matrices with generalized number sequences**  
 KIRKLAR E., YILMAZ F.  
 Special Matrices, vol.3, pp.235-243, 2015 (ESCI)
- VIII. **On tensor product decomposition of k tridiagonal Toeplitz matrices**  
 OHASHI A., TSUYOSHI SASAKI U., TOMOHIRO S., YILMAZ F.  
 International Journal of Pure and Applied Mathematics, vol.103, no.3, pp.537-545, 2015 (Scopus)
- IX. **A Note On k Tridiagonal k Toeplitz Matrices**  
 KIRKLAR E., YILMAZ F.  
 Alabama Journal of Mathematics, vol.39, 2015 (Peer-Reviewed Journal)
- X. **The determinants of circulant and skew circulant matrices with Tribonacci numbers**  
 BOZKURT D., FONSECA C. M. D., YILMAZ F.  
 Mathematical Science and Applications E-Notes, vol.2, no.2, pp.67-75, 2014 (Peer-Reviewed Journal)
- XI. **A note on symmetric k tridiagonal matrix family and the Fibonacci numbers**  
 YILMAZ F., SOGABE T.  
 International Journal of Pure and Applied Mathematics, vol.96, no.2, pp.289-298, 2014 (Scopus)
- XII. **On the Pell sequence and Hessenberg matrices**

YILMAZ F., BOZKURT D.

Selcuk Journal of Applied Mathematics, pp.27-32, 2012 (Peer-Reviewed Journal)

XIII. **Note on one type of matrix and Fibonacci numbers**

YILMAZ F., KIYAK H., GÜRSES İ., AKBULAK M., BOZKURT D.

Far East Journal of Mathematics, vol.40, no.2, pp.267-275, 2010 (Peer-Reviewed Journal)

XIV. **The Generalized Order k Jacobsthal Numbers**

YILMAZ F., BOZKURT D.

International Journal of Contemporary Mathematical Sciences, vol.4, no.34, pp.1685-1694, 2009 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **ON ONE TYPE OF SYMMETRIC MATRICES WITH HARMONIC FIBONACCI ENTRIES**  
AKBIYIK M., YAMAÇ AKBIYIK S., YILMAZ F.  
International Online Conference on Differential Equations, Control and Optimization DECOP'21, Turkey, 27 October 2021
- II. **De-Moivre's and Euler Formulas for Matrices of Hybrid Numbers**  
AKBIYIK M., YAMAÇ AKBIYIK S., KARACA E., YILMAZ F.  
II. International Conference on Mathematics and its Applications in Science and Engineering (ICMASE-2021), Spain, 01 July 2021
- III. **TRAINING OPEN COURSES TO ASSESS MATHEMATICALCOMPETENCIES**  
YILMAZ F., Vaquero J. M., Dios A. Q.  
International Conference on Mathematics and Its Applications in Science and Engineering, 9 - 10 July 2020
- IV. **SOME CHARACTERIZATIONS FOR SPLITQUATERNIONS**  
KARACA E., YILMAZ F., ÇALIŞKAN M.  
International Conference on Mathematics and its Applications in Science and Engineering, 9 - 10 July 2020
- V. **SOME APPLICATIONS OF EIGENVALUE AND EIGENVECTORS INENGINEERING**  
YILMAZ F., Mazilu I. M.  
International Conference on Mathematics and its Applications in Science and Engineering, 9 - 10 July 2020
- VI. **Some practical applications of matrices and determinants in real life**  
Mierlus Mazilu I., YILMAZ F.  
19th Conference on Applied Mathematics, APLIMAT 2020, Bratislava, Slovakia, 4 - 06 February 2020, pp.814-823
- VII. **Solving real life problems using matrices and determinants**  
YILMAZ F., Mierlus Mazilu I., Rasteiro D.  
19th Conference on Applied Mathematics, APLIMAT 2020, Bratislava, Slovakia, 4 - 06 February 2020, pp.1131-1139
- VIII. **Some applications of linear algebra to sociology, chemistry and networks**  
HEVEŞ V., YILMAZ F.  
International Conference on Mathematics:An Istanbul Meeting for World Mathematicians, 3 - 05 July 2019
- IX. **Balancing Sayıları ve Blok Matrisler**  
HEVEŞ V., YILMAZ F.  
14. Ankara Matematik Günleri (AMG 2019), Turkey, 28 - 29 June 2019
- X. **On Skew-Centrosymmetric Matrices**  
ÖZKAN M., YILMAZ F.  
International Conference on Mathematics and Mathematics Education, Ordu, Turkey, 27 - 29 June 2018
- XI. **Basic mathematics assessment in engineeringdegrees: case study**  
YILMAZ F., Vaquero J. M., Caceres M. J., Rodriguez G., Dios A. Q.  
EDUCON2018 – IEEE Global Engineering Education Conference, 17 - 20 April 2018
- XII. **On one type of ladder graphs and the Pell numbers**  
KIRKLAR E., YILMAZ F.

International Conference on Mathematics and Mathematics Education(ICMME-2017), Harran University, Şanlıurfa,  
11 - 13 May 2017

- XIII. **On  $r$ -Circulant Matrices**  
KIRKLAR E., YILMAZ F.  
International Conference on Mathematics and Mathematics Education(ICMME-2017), 11 - 13 May 2017
- XIV. **Some comments on skew symmetric matrices Pfaffian determinant and eigenvalue**  
KIRKLAR E., YILMAZ F.  
1st International INES Academic Researches Congress (INES 2016), 3 - 05 November 2016
- XV. **On adjacency matrices for one type of graph and their properties**  
KIRKLAR E., YILMAZ F.  
1st International INES Academic Researches Congress (INES 2016), 3 - 05 November 2016
- XVI. **On linear algebra of adjacency matrices for one type of graph**  
PINAR E., YILMAZ F.  
International Conference on Applied Mathematics and Analysis (ICAMA2016), 11 - 13 July 2016
- XVII. **On  $k$  Hessenberg Toeplitz matrices**  
KIRKLAR E., YILMAZ F.  
International Conference on Applied Mathematics and Analysis, 11 - 13 July 2016
- XVIII. **On some properties of Balance binomial graphs**  
KAR K., YILMAZ F.  
International Conference on Applied Mathematics and Analysis, 11 - 13 July 2016
- XIX. **On circulant type matrices with generalized number sequences**  
KIRKLAR E., YILMAZ F.  
Antalya Algebra Days-XVII, 20 - 24 May 2015
- XX.  **$k$  Tridiagonal  $k$  Toeplitz matrisler ve Bazı Özellikleri**  
KIRKLAR E., YILMAZ F.  
MATDER 13. Matematik Sempozyumu, Turkey, 15 - 17 May 2014
- XXI. **On symmetric  $k$  tridiagonal matrix family and the Fibonacci numbers**  
YILMAZ F., SOGABE T.  
Conference on Mathematics and Its applications-2014, 14 - 17 November 2014
- XXII. **The Balancing and Lucas Balancing numbers and  $k$  tridiagonal matrices**  
KIRKLAR E., YILMAZ F.  
Karatekin Mathematics Days 2014- International Mathematics Symposium, 11 - 13 June 2014
- XXIII.  **$k$  Tridiaagonal  $k$  Toeplitz matrisler ve Bazı Özellikleri**  
KIRKLAR E., YILMAZ F.  
MATDER 13. Matematik Sempozyumu, Karabük, Turkey, 14 - 17 May 2014
- XXIV. **Bidiagonal Matrices and The Fibonacci and Lucas Numbers**  
YILMAZ F., BOZKURT D.  
Conference on Matrix Analysis and its Applications, Herceg-Novı, Montenegro, 16 - 20 September 2013
- XXV. **Hessenberg matrices and their some applications**  
AKTAŞ İ., YILMAZ F., KÖSE H.  
4th INTERNATIONAL CONFERENCE ON MATRIX ANALYSIS AND APPLICATIONS, Konya, Turkey, 2 - 05 July 2013
- XXVI. **On determinantal representation of the generalized Fibonacci numbers their sums and Hessenberg matrices**  
YILMAZ F., BOZKURT D.  
International Conference on Applied Analysis and Algebra, 20 - 24 June 2012
- XXVII. **Determinants and inverses of circulant matrices with Pell and Pell Lucas numbers**  
YILMAZ F., BOZKURT D.  
SIAM Conference on Applied Linear Algebra, 18 - 22 June 2012
- XXVIII. **One type of matrix family and the Fibonacci numbers**  
YILMAZ F., BOZKURT D.  
International Conference of Jangjeon Mathematical Society- ICJMS'2011, 20 - 23 July 2011

- XXIX. **Pell sayı dizisi üzerine**  
YILMAZ F., BOZKURT D.  
Ereğli Tebliğ Günleri, Konya-2011, Turkey, 28 - 29 April 2011
- XXX. **On Adjacency Matrix of One Type of Graph and Pell Numbers**  
YILMAZ F., BOZKURT D.  
World Congress on Engineering (WCE 2011), London, Canada, 6 - 08 July 2011, pp.202-204
- XXXI. **Powers of Persymmetric for one type of Anti Tridiagonal Matrices of Even Order**  
AKBULAK M., YILMAZ F., BOZKURT D.  
The 3rd International Workshop of Matrix Analysis and Applications, July 9-13, Hangzhou, China, 2009, 9 - 13 July 2009
- XXXII. **Complex Factorization of the Fibonacci Numbers by Anti Tridiagonal Matrix Method**  
AKBULAK M., YILMAZ F., BOZKURT D.  
The 3rd International Workshop of Matrix Analysis and Applications, July 9-13, Hangzhou, China, 2009, 9 - 13 July 2009

## **Supported Projects**

YILMAZ F., Project Supported by Higher Education Institutions, Balance Binomial Grafların Özelliklerinin İncelenmesi, 2016 - 2016

## **Metrics**

Publication: 59  
Citation (WoS): 89  
Citation (Scopus): 16  
H-Index (WoS): 6  
H-Index (Scopus): 2