

Assoc. Prof. ELİF SAYGI

Personal Information

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Address: Hacettepe Üniversitesi Eğitim Fakültesi İlköğretim Bölümü

Education Information

Doctorate, Middle East Technical University, Institute Of Applied Mathematics, Cryptography, Turkey 2004 - 2009

Postgraduate, Middle East Technical University, Institute Of Applied Mathematics, Cryptography, Turkey 2002 - 2004

Undergraduate, Orta Doğu Teknik Üniversitesi, Fen Fakültesi, Matematik, Turkey 1998 - 2002

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Results on LCZ sequences and quadratic forms, Middle East Technical University, Institute Of Applied Mathematics, Cryptography, 2009

Postgraduate, Counting and constructing boolean functions with particular difference distribution vectors, Middle East Technical University, Institute Of Applied Mathematics, Cryptography, 2004

Research Areas

Mathematics, Mathematics Education, Natural Sciences

Academic Titles / Tasks

Associate Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2020 - Continues

Associate Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2018 - 2020

Assistant Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2012 - 2018

Lecturer, Hacettepe Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2009 - 2012

Research Assistant, Hacettepe Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2004 - 2009

Academic and Administrative Experience

Hacettepe Üniversitesi, Eğitim Fakültesi, İlköğretim Bölümü, 2014 - 2015

Courses

Seminer, Doctorate, 2020 - 2021
Bireysel Çalışmalar, Doctorate, 2020 - 2021
Özel Konular, Postgraduate, 2020 - 2021
Elementer Sayı Kuramı, Undergraduate, 2017 - 2018
Cebire Giriş, Undergraduate, 2017 - 2018
İÖB 600, Postgraduate, 2016 - 2017
Matematik Öğretiminde Zeka Oyunları , Postgraduate, 2016 - 2017
Analiz I, Undergraduate, 2016 - 2017
ZEKA OYUNLARI I, Undergraduate, 2016 - 2017
İÖB 799, Doctorate, 2016 - 2017
ZEKA OYUNLARI II, Undergraduate, 2016 - 2017
ANALİZ II, Undergraduate, 2016 - 2017
İÖB 700, Doctorate, 2016 - 2017
Lineer Cebir 2, Undergraduate, 2014 - 2015
Lineer Cebir, Undergraduate, 2014 - 2015

Advising Theses

Saygı E., 5. ve 6. sınıf öğrencilerinin kazanım değerlendirme uygulaması sonuçlarının bilişsel alanlar açısından karşılaştırılması, Postgraduate, S.TAŞYARAN(Student), 2019
SAYGI E., Kriptoloji kullanımının fonksiyon kavramının anlaşılmasına etkisi, Postgraduate, R.EROL(Student), 2015

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **The number of short cycles in Fibonacci cubes**
Egecioglu O., SAYGI E., SAYGI Z.
THEORETICAL COMPUTER SCIENCE, vol.871, pp.134-146, 2021 (Journal Indexed in SCI)
- II. **The Mostar Index of Fibonacci and Lucas Cubes**
Egecioglu O., SAYGI E., SAYGI Z.
BULLETIN OF THE MALAYSIAN MATHEMATICAL SCIENCES SOCIETY, 2021 (Journal Indexed in SCI)
- III. **Types of Global Argumentation Structures in Conjecture-Generation Activities Regarding Geometry**
DEMİRAY E., İŞIKSAL BOSTAN M., SAYGI E.
INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, 2021 (Journal Indexed in SSCI)
- IV. **The structure of k-Lucas cubes**
Egecioglu O., SAYGI E., SAYGI Z.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.50, no.3, pp.754-769, 2021 (Journal Indexed in SCI)
- V. **k-Fibonacci Cubes: A Family of Subgraphs of Fibonacci Cubes**
Egecioglu O., Saygi E., Saygi Z.
INTERNATIONAL JOURNAL OF FOUNDATIONS OF COMPUTER SCIENCE, vol.31, no.5, pp.639-661, 2020 (Journal Indexed in SCI)
- VI. **The Irregularity Polynomials of Fibonacci and Lucas cubes**
Egecioglu O., Saygi E., Saygi Z.
BULLETIN OF THE MALAYSIAN MATHEMATICAL SCIENCES SOCIETY, 2020 (Journal Indexed in SCI)
- VII. **On the chromatic polynomial and the domination number of k-Fibonacci cubes**
Egeciouglu O., Saygi E., Saygi Z.
TURKISH JOURNAL OF MATHEMATICS, vol.44, no.5, pp.1813-1823, 2020 (Journal Indexed in SCI)
- VIII. **Boundary enumerator polynomial of hypercubes in Fibonacci cubes**
Saygi E., Egecioglu O.
DISCRETE APPLIED MATHEMATICS, vol.266, pp.191-199, 2019 (Journal Indexed in SCI)

- IX. **On the domination number and the total domination number of Fibonacci cubes**
SAYGI E.
ARS MATHEMATICA CONTEMPORANEA, vol.16, no.1, pp.245-255, 2019 (Journal Indexed in SCI)
- X. **q-counting hypercubes in Lucas cubes**
SAYGI E., Egecioglu O.
TURKISH JOURNAL OF MATHEMATICS, vol.42, no.1, pp.190-203, 2018 (Journal Indexed in SCI)
- XI. **q-cube enumerator polynomial of Fibonacci cubes**
Saygı E., Egecioğlu O.
DISCRETE APPLIED MATHEMATICS, vol.226, pp.127-137, 2017 (Journal Indexed in SCI)
- XII. **Counting disjoint hypercubes in Fibonacci cubes**
Saygı E., Egecioğlu O.
DISCRETE APPLIED MATHEMATICS, vol.215, pp.231-237, 2016 (Journal Indexed in SCI)
- XIII. **Quadratic forms of codimension 2 over finite fields containing F-4 and Artin-Schreier type curves**
ÖZBUDAK F., SAYGI E., Saygi Z.
FINITE FIELDS AND THEIR APPLICATIONS, vol.18, no.2, pp.396-433, 2012 (Journal Indexed in SCI)
- XIV. **A new class of quaternary LCZ sequence sets**
ÖZBUDAK F., SAYGI E., Saygi Z.
DESIGNS CODES AND CRYPTOGRAPHY, vol.62, no.2, pp.189-198, 2012 (Journal Indexed in SCI)
- XV. **Quadratic forms of codimension 2 over certain finite fields of even characteristic**
ÖZBUDAK F., SAYGI E., Saygi Z.
CRYPTOGRAPHY AND COMMUNICATIONS-DISCRETE-STRUCTURES BOOLEAN FUNCTIONS AND SEQUENCES, vol.3, no.4, pp.241-257, 2011 (Journal Indexed in SCI)
- XVI. **High Achiever Students' Self Regulated Learning Strategies, Motivation towards Mathematics, and their Thinking Styles**
Ispir O. A., AY Z. S., SAYGI E.
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.36, no.162, pp.235-246, 2011 (Journal Indexed in SSCI)

Articles Published in Other Journals

- I. **İlköğretim Matematik Öğretmen Adaylarının Hafıza Oyunları İle Hafıza Oyunlarının Matematik Öğretimine Katkısına İlişkin Görüşleri**
SAYGI E., ALKAŞ ULUSOY Ç.
ABANT İZZET BAYSAL ÜNİVERSİTESİ EĞİTİM FAKÜLTESİ DERGİSİ, vol.19, no.1, pp.331-345, 2019 (National Refreed University Journal)
- II. **Apartmanlar Oyununun Ortaokul Matematik Öğretmen Adaylarının Görselleştirme Yeteneklerine Olan Etkisi**
Zeybek N., Saygı E.
Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, vol.18, 2018 (Other Refereed National Journals)
- III. **Upper Bounds on the Domination and Total Domination Number of Fibonacci Cubes**
SAYGI E.
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, pp.782-785, 2017 (Other Refereed National Journals)
- IV. **Views of Elementary Mathematics Teachers about Mental Games Course**
ALKAŞ ULUSOY Ç., SAYGI E., Umay A.
HACETTEPE UNIVERSİTESİ EĞİTİM FAKÜLTESİ DERGİSİ-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, vol.32, no.2, pp.280-294, 2017 (Journal Indexed in ESCI)
- V. **İlköğretim Matematik Öğretmenlerinin Zeka Oyunları Dersi ile İlgili Görüşleri**
ALKAŞ ULUSOY Ç., SAYGI E., Umay A.
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi (H. U. Journal of Education), vol.32, no.2, pp.280-294, 2017 (Journal Indexed in ESCI)

- VI. **A SECOND PRE IMAGE ATTACK AND A COLLISION ATTACK TO CRYPTOGRAPHIC HASH FUNCTION LUX**
SULAK F., KOÇAK O., SAYGI E., BOZDEMİR B., ÖĞÜNÇ M.
Communications Series A1: Mathematics and Statistics, vol.66, pp.254-266, 2017 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Interpretation of graphs regarding definite integral**
DEMİRAY E., ZEYBEK N., SAYGI E.
The European Conference on Educational Research (ECER), 3 - 07 September 2019
- II. **Pre-service Middle School Mathematics Teachers' Integration of Mental Games to Mathematics Lesson Plan**
DEMİRAY E., ZEYBEK N., SAYGI E.
European Conference on Educational Research (ECER), Bolzano, Italy, 3 - 07 September 2018
- III. **Use of Mental Games in Mathematics Lesson Plans**
ZEYBEK N., DEMİRAY E., SAYGI E.
International Conference on Mathematics and Mathematics Education (ICMME-2018), Ordu, Turkey, 27 - 29 May 2018
- IV. **The Effect of Skyscrapers Game on the Spatial Visualization Ability of Pre-Service Middle School Mathematics Teachers**
ZEYBEK N., YALVAÇ B., SAYGI E.
European Conference on Educational Research (ECER), Kopenhagen, Denmark, 21 - 25 August 2017
- V. **Prospective middle school mathematics teachers' interpretations of graphs related to integral**
DEMİRAY E., SAYGI E.
European Conference on Educational Research ECER, Kopenhagen, Denmark, 21 - 25 August 2017
- VI. **Boundary Enumerator Polynomial of Hypercubes in Fibonacci Cubes**
SAYGI E., Egecioğlu Ö.
The Second Malta Conference in Graph Theory and Combinatorics, Qawra, Malta, 26 - 30 June 2017
- VII. **Fibonacci ve Lucas Küplerindeki Ayrık Hiperküplerin Sayıları**
SAYGI E.
Ankara Matematik Günleri, Ankara, Turkey, 25 - 26 May 2017
- VIII. **On the Domination Number and the Total Domination Number of Fibonacci Cubes and Lucas Cubes**
SAYGI E.
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Turkey, 11 - 13 May 2017
- IX. **On the isoperimetric number and bisection width of Fibonacci cubes**
SAYGI E., Egecioğlu Ö.
Antalya Algebra Days, İzmir, Turkey, 17 - 21 May 2017
- X. **- Zekâ Oyunları Dersinde Akıl Yürütme ve İşlem Oyunları Ünitesinde Oynatılan Oyunlar ve Bu Oyunların Seçilme Sebeplerinin İncelenmesi**
TAŞYARAN S., EROL R., SAYGI E.
IV. International Eurasian Educational Research Congress, 11 May - 14 July 2017
- XI. **Fibonacci ve Lucas Graflarındaki Hiper-Küplerin Özellikleri** Elif Saygı
SAYGI E.
29. Ulusal Matematik Sempozyumu, Mersin, Turkey, 28 - 31 August 2016
- XII. **Some necessary conditions for a quadratic feedback shift register to generate a maximum length sequence**
DOĞANAKSOY A., SAYGI E., SAYGI Z.
Boolean Functions: Cryptography and Applications, Paris, France, 2 - 04 May 2007, pp.93-100
- XIII. **On the quadratic feedback shift registers**
DOĞANAKSOY A., SAYGI E.

I. Ulusal Kriptoloji Sempozyumu, Ankara, Turkey, 18 - 20 November 2005, pp.127-133

- XIV. **A Statistical Approach on the Number of Functions Satisfying Strict Avalanche Criteria**
SAYGI E., SAYGI Z., SÖNMEZ TURAN m., DOĞANAKSOY A.
Boolean Functions: Cryptography and Applications, Rouen, France, 8 - 09 March 2005, pp.39-48

Supported Projects

- SAYGI E., TUBITAK Project, Fibonacci ve Lucas Küplerinin Bazı Kombinatorik ve Çizge Teorik Özellikleri, 2018 - 2020
SAYGI E., Project Supported by Higher Education Institutions, Fibonacci Küpleri ve Lucas Küplerinin Bazı Sayısal ve Yapısal Özellikleri, 2018 - 2019
SAYGI E., Project Supported by Higher Education Institutions, IEEE Adli Bilişim ve Güvenlik Çalıştayı Katılımı, 2017 - 2017
SAYGI E., DEMİRAY E., Project Supported by Higher Education Institutions, Ortaokul Matematik Öğretmen Adaylarının İntegralde Grafik Yorumlamaları, 2017 - 2017
SAYGI E., Project Supported by Higher Education Institutions, Fibonacci Küplerindeki Hiperküplerin Sınır Sayma Polinomları, 2017 - 2017
SAYGI E., Project Supported by Higher Education Institutions, Fibonacci küpleri ve Lucas küplerinin baskınlık sayıları ve toplam baskınlık sayıları üzerine, 2017 - 2017
SAYGI E., Project Supported by Higher Education Institutions, Fibonacci ve Lucas Küplerinin Kombinatorik Özellikleri, 2017 - 2017
SAYGI E., TUBITAK Project, Caesar Yarışmasına Katılan Kimlik Denetimini Sağlayan Algoritmaların Kriptanalizi, 2014 - 2017
SAYGI E., TUBITAK Project, Cryptographic Vectorial Boolean functions (Yürütücü: Elif SAYGI), 2015 - 2016
SAYGI E., Project Supported by Higher Education Institutions, Kriptografik Vektörel Boole Fonksiyonları, 2015 - 2016
AY Z. S. , YILMAZ N., SAYGI E., Project Supported by Higher Education Institutions, ÖĞRETMEN ADAYLARININ MATEMATİKSEL İSPAT PERFORMANSLARININ BAZI DEĞİŞKENLER BAKIMINDAN İNCELENMESİ, 2015 - 2015

Mobility Activity

Other Exchange Programme, Guest Researcher, University of California, Santa Barbara, United States Of America, 2015 - 2016

Citations

Total Citations (WOS):67

h-index (WOS):5