
Levent AYDIN, PhD

Assoc. Prof.
İzmir Katip Çelebi University
Faculty of Engineering and Architecture
Department of Mechanical Engineering

leventaydinn@gmail.com
levent.aydin@ikcu.edu.tr
Gsm: +90 533 494 66 41
İzmir Katip Çelebi University
Cigli Ana Yerleşkesi 35620 Cigli, Izmir, TURKEY

Founder of
Optimization-Modeling-Applied Math
Research Group (OMA-RG)



omargsolution@gmail.com
232 329 35 35- 3704



EXPERIENCES

2023-Present: Project General Coordinator (İzmir Katip Çelebi University)
2020-Present : Associate Professor (Department of Mechanical Engineering, İzmir Katip Çelebi University)
2012-2020 : Assistant Professor (Department of Mechanical Engineering, İzmir Katip Çelebi University)
2004-2011 : Research Assistant (Department of Mechanical Engineering, İzmir Institute of Technology)

EDUCATION

Ph.D. (2005-2011) : Mechanical Engineering, İzmir Institute of Technology
M.Sc. (2002-2005) : Mechanical Engineering, İzmir Institute of Technology
P.S. (2001-2002) : Preparation School (English), İzmir Institute of Technology
B.Sc (1997-2001) : Mechanical Engineering, Celal Bayar University

ACHIEVEMENTS

Ph.D. with High Honor Degree
M.Sc. with High Honor Degree
Biography in the 2010 Edition of Who's Who in the World
Biography in the 2020 Edition of Who's Who in the World

ACADEMIC FIELDS OF INTERESTS**Advanced Engineering Mathematics**

- Special Functions
- Integral Transform Methods
- Analytical Solutions of PDEs and ODEs
- Numerical Solutions of Singular Integral Equations
- Multiple nonlinear neuro-regression
- Artificial Neural Networks

Fracture Mechanics - Solid Mechanics

- Stress Intensity Factor Approach,
- Axisymmetric Cracks in Hollow Cylinders
- Dynamic Buckling Problems,
- Vibration of Nonuniform Rods

The Mathematical Softwares: Matlab, Mathematica and Maple for Engineering Applications

- MATLAB Optimization Toolbox, Symbolic Math Toolbox, Simulink Applications in Engineering Problems
- MATHEMATICA Symbolic Programming, Nonlinear Equation Solving-
- MAPLE solvers used in Engineering

Mechanics of Composites and Optimization

- Failure Theories on Composite Materials
- Stress Analysis of Fiber Reinforced Polymer Composites
- Effects of Hygrothermal Loading on Composite Structures
- Development of Satellite Structure Material
- Stochastic Optimization of Composite Systems

COURSES**Graduate Courses**

CE 501 Analytical Methods in Engineering
ME 580 Advanced Engineering Mathematics
ME 501 Advanced Strength of Materials
BCE 513 Dizayn ve Optimizasyon

Undergraduate Courses

ME 122 Statics
MSE 211 Applied Engineering Mathematics
MSE 222 Statistical Methods for Engineering
ME 232 Applied Mathematics for Engineering
ME 212 Numerical Analysis
ME 464 Optimization in Engineering

THESES

Ph.D. Design of Dimensionally Stable Laminated Composites Subjected to Hygro-thermo-mechanical Loading by Stochastic Optimization Methods (Advisor: Asst.Prof.Dr. H.Secil Artem)

M.Sc. Investigation of Stress Intensity Factors in an Elastic Cylinder Under Axial Tension with a Crack of Ring Shape (Advisor: Asst.Prof.Dr. H.Secil Artem)

B.Sc. Ekstrüzyon Makinasında Uygun Akış Probleminin Çözümü (Advisor: Prof. Dr. Mehmet Pakdemirli)

PUBLICATIONS and RESEARCH PROJECTS

International Books and Book Chapters

1. **Melih Savran and Levent Aydin**
Chapter 14 - Material selection for hybrid natural fiber laminated composites in vibration using a stochastic optimization method,
Editor(s): Anish Khan, Sanjay Mavinkere Rangappa, Suchart Siengchin, Mohammad Jawaid, Abdullah M. Asiri,
In Woodhead Publishing Series in Composites Science and Engineering,
Hybrid Natural Fiber Composites, Woodhead Publishing, 2021, Pages 281-307.
2. **Savran M., Aydin L., Deveci H.A., Gültürk E.**
Maximization of Buckling Resistance for Lightweight Vegetable Based Hybrid Laminated Composites Combined with Synthetic Fibers.
In: Jawaid M., Khan A. (eds)
Vegetable Fiber Composites and their Technological Applications. Composites Science and Technology. Springer, Singapore. 2021, pp 81-105
3. **Levent Aydin, H Seçil Artem and Selda Oterkus**
Chapter 1 :Mathematical Background,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
4. **Melih Savran, Harun Sayi and Levent Aydin**
Chapter 3 : Mathematica and Optimization,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
5. **Melih Savran, Ozan Ayakdaş, Levent Aydin and M Eren Dizlek**
Chapter 4 : Design and Optimization of Glass Reinforced Composite Driveshafts for Automotive Industry,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
6. **Ümmühan Gümüş, Levent Aydin, Okan Yazici and Samet Kabacaoğlu**
Chapter 5 : Dual Mass Flywheel Optimization,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
7. **Ebru Düz, Levent Aydin, Selda Oterkus and Mahir Tosun**
Chapter 6 : Wind Turbine Optimization by Using Stochastic Methods,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
8. **Harun Sayi, Ozan Ayakdaş, Levent Aydin and H Seçil Artem**
Chapter 7 : Development of Optimum Hydrogen Storage Vessels,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
9. **Savas Ozturk, Nilay Kucukdogan, Levent Aydin and Ayşe Seyhan**
Chapter 8 : Optimization of Surface Roughness in Slicing Process of Silicon Ingots,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
10. **Erhan Nergiz, Levent Aydin, Durmuş Uygun, Nilay Kucukdogan and Yucel Cetinceviz**
Chapter 9:Design and Optimization of Permanent Magnet Synchronous Generators,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
11. **H Irem Erten, Levent Aydin, Selda Oterkus, Erkan Oterkus and H Seçil Artem**
Chapter 10 : Design Optimization of an Offshore Wind Turbine,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020
12. **Mehmet Sari, İlhan Tatar, Levent Aydin, Selda Oterkus and Erkan Oterkus**
Chapter 11 : Structural Optimization of Bulk Carrier Bottom Stiffened Panels by Using Multiple Nonlinear Regression Model,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020

13. **Fatih Turhan, Cansu Yildirim and Levent Aydin**

Chapter 12 : Optimization of Weld Bead Geometry for TIG Welding Process,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020

14. **Sezgin Yurtdas, Levent Aydin, Cenk Kilicaslan and H Irem Erten**

Chapter 13 : Geometrical Optimization for a Cold Extrusion Process,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020

15. **Savas Ozturk, Mucahit Sutcu, Levent Aydin and Osman Gencel**

Chapter 16 : Thermal Optimization of Lightweight and Micro-porous Clay Bricks for Building Applications,
Designing Engineering Structures Using Stochastic Optimization Methods
Editors: Levent Aydin, H Seçil Artem, Selda Oterkus
CRC PressTaylor & Francis Group 2020

16. **İlker Polatoğlu, Erdal Eroğlu, Levent Aydin**

Chapter 24. Quantum Dots for Bioelectrochemical Applications,
Bioelectrochemical Interface Engineering
Editor(s): R. Navanietha Krishnaraj, Rajesh K. Sani,
John Wiley & Sons, Inc. 2020.

17. **Levent Aydin and H. Seçil Artem,**

Chapter 14 :Design and optimization of fiber composites,
Fiber Technology for Fiber-Reinforced Composites; A volume in Woodhead Publishing Series in Composites Science and Engineering,
Edited by:M. Özgür Seydibeyoğlu, Amar K. Mohanty and Manjusri Misra; ISBN: 978-0-08-101871-2,
Elsevier 2017

18. **Levent Aydin, H. Seçil Artem, Erkan Oterkus, Omer Gundogdu, Hamit Akbulut**

Chapter 2 – Mechanics of fiber composites
Fiber Technology for Fiber-Reinforced Composites; A volume in Woodhead Publishing Series in Composites Science and Engineering,
Edited by:M. Özgür Seydibeyoğlu, Amar K. Mohanty and Manjusri Misra; ISBN: 978-0-08-101871-2,
Elsevier 2017

19. **Melih SAVRAN, Levent AYDIN**

Chapter 176. Design and Optimization of Natural Fiber Reinforced Composite Drive Shafts for Automotive Industry
Researches on Science and Art in 21st Century Turkey.
EDITORS : Hasan ARAPGIRLIOGLU, Atilla ATIK, Robert L. ELLIOTT, Edward TURGEON
Gece Publishing, November, 2017

20. **Ozan AYAKDAŞ, Levent AYDIN**

Chapter 321. Hydrogen Storage Technologies
Researches on Science and Art in 21st Century Turkey.
EDITORS : Hasan ARAPGIRLIOGLU, Atilla ATIK, Robert L. ELLIOTT, Edward TURGEON
Gece Publishing, November, 2017

21. **Sezgin YURTDAS, M. Burak TOPARLI, Tayfun DAMLA, Baris TANRIKULU, N. Emrah KILINCDEMİR, Umut INCE, Levent AYDIN**

Chapter 113. A Comparative Study Of Metal Shaping Processes Between Forging And Machining.
The Most Recent Studies In Science And Art. Gece Publishing, November, 2018, pp 1458-1467

22. **Melih SAVRAN, Ozan AYAKDAS, Levent AYDIN**

CHAPTER 141. Free Vibration Analysis Of Laminated Composite Plates
The Most Recent Studies In Science And Art. Gece Publishing, November, 2018, pp 1810-1824

23. **Nilay KUCUKDOGAN, Levent AYDIN, Savas OZTURK, Mucahit SUTCU**

CHAPTER 143. Thermal Conductivity Of Hetero-Phase Polymer Composites.
The Most Recent Studies In Science And Art. Gece Publishing, November, 2018, pp 1836-1843

24. **Nilay KUCUKDOGAN, Mucahit SUTCU, Savas OZTURK, Levent AYDIN, Erhan KAYABASI, Harun SAYI.**

CHAPTER 145. Thermal Degradation Behavior And Flame Retardancy Of Organic And Inorganic Filled Polymer Composites
The Most Recent Studies In Science And Art. Gece Publishing, November, 2018, pp 1854-1865

National Books and Book Chapters

1. **Levent AYDIN,** İkinci Bölüm, Birey ve Toplum Açısından Transhümanizm ve Posthümanizm, “Yapay Zeka, Tekno-Doğa, Tekno Kültür ve Biyo-Etik” Transhümanizm & Posthümanizm - Disiplinlerarası Bir Çalışma, Editörler: Mustafa Tekin, Muhammet Özdemir. Eskiyei Yayınları, ISBN:978-625-7673-18-1, December, 2021, pp 163-212.

2. **Levent AYDIN,** İkinci Bölüm, Birey ve Toplum Açısından Transhümanizm ve Posthümanizm, “Dijital Çağ ve Robotik Teknoloji” Transhümanizm & Posthümanizm - Disiplinlerarası Bir Çalışma, Editörler: Mustafa Tekin, Muhammet Özdemir. Eskiyei Yayınları, ISBN:978-625-7673-18-1, December, 2021, pp 227-285.

3. **Levent AYDIN**, İkinci Bölüm, Teknoloji, Ekonomi, Sağlık ve Spor, "Metaverse, Yapay Zeka ve Eşzamanlı Sanal Yaşamların Tekno-etijî" Metaverse Gerçek Zamanlı Sanal Yaşam, Editörler: Mustafa Tekin, Muhammet Özdemir. Mana Yayınları, ISBN: 9786258354089, MArch, 2023, pp 163-212.

SCI Journal Papers

1. **Baytok Y, Aydın L, Deveci H, Gültürk E.**
A modified approach on modeling-design-optimization procedure for cutting of pure titanium using wire electric discharge machining (WEDM).
Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. 2023
2. **Ali Bahadır Ceylan, Levent Aydın, Mustafa Nil, Hayati Mamur, İlker Polatoğlu, Hasan Sözen**
A new hybrid approach in selection of optimum establishment location of the biogas energy production plant
Biomass Conversion and Biorefinery, 13, pages 5771–5786 (2023)
3. **Melih Savran & Levent Aydın**
Natural frequency and buckling optimization considering weight saving for hybrid graphite/epoxy-sitka spruce and graphite-flax/epoxy laminated composite plates using stochastic methods,
Mechanics of Advanced Materials and Structures, (2023) Volume 30- Issue 13; 2637-2650
4. **Kemal Bartu Aydın, Levent Aydın & Fethullah Güneş**
Modeling and Optimum Design of Carbon Nanotube/Polyvinyl Alcohol Hybrid Nanofibers as Electromagnetic Interference Shielding Material.
Integrating Materials and Manufacturing Innovation 11, pages 391–406 (2022)
5. **Maarroof, O.W., Dede, M.I.C., Aydın, L.**
A Robot Arm Design Optimization Method by Using a Kinematic Redundancy Resolution Technique.
Robotics 2022, 11, 1. <https://doi.org/10.3390/robotics11010001>
6. **Aynur Ayvalik, Levent Aydın**
Simultaneous analysis and optimum design of synthetic and vegetable fiber-reinforced composites for buckling - failure phenomena.
Mechanics of Advanced Materials And Structures (2022), VOL. 29, NO. 26, 5501–5510.
7. **Levent AYDIN, H. Secil ARTEM, H. Arda DEVECİ**
Single- and Multiobjective Optimizations Of Dimensionally Stable Composites Using Genetic Algorithms.
Mechanics of Composite Materials, Vol. 57, No. 3, July, 2021, pp.321-336.
8. **Latif Tibet Aktaş, Levent Aydın**
Stochastic optimization and modeling of high-velocity impact tests on high-temperature carbon-carbon composites
SN Applied Sciences (2021) 3:313
9. **Serkan Kangal, A. Harun Sayı, Ozan Ayakdaş, Osman Kartav, Levent Aydın, H. Seçil Artem, Engin Aktaş, Kutay Yüçetürk, Metin Tanoğlu, Sinan Kandemir, Bertan Beylergil.**
A Comprehensive Study on Burst Pressure Performance of Aluminum Liner for Hydrogen Storage Vessels.
Journal of Pressure Vessel Technology, AUGUST 2021, Vol. 143 / 041503-1.
10. **İlker Polatoğlu, Levent Aydın**
A new design strategy with stochastic optimization on the preparation of magnetite cross-linked tyrosinase aggregates (MCLTA)
Process Biochemistry 99 (2020) 131–138.
11. **İlker Polatoğlu, Levent Aydın, Bilgehan Çağrı Nevruz & Sibel Özer**
A Novel Approach for the Optimal Design of a Biosensor,
Analytical Letters, (2020) 53:9, 1428-1445.
12. **Aydın L, Aydın O, Mert A, Artem HS**
Design of the Dimensionally Stable Composites using Efficient Global Optimization Method.
Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications. 2019, 233.2: 156-168
13. **Ozturk S, Aydın L, Celik E**
A comprehensive study on slicing processes optimization of silicon ingot for photovoltaic applications.
Solar Energy 161 (2018) 109–124
14. **Ozturk S, Aydın L, Kucukdogan N, Celik E**
Optimization of lapping processes of silicon wafer for photovoltaic applications.
Solar Energy 164 (2018) 1–11
15. **Savran M, Aydın L**
Stochastic optimization of graphite-flax/epoxy hybrid laminated composite for maximum fundamental frequency and minimum cost.
Engineering Structures 174 (2018) 675–687

16. **Kucukdogan N, Aydin L, Sutcu M,**
Theoretical and empirical thermal conductivity models of red mud filled polymer composites.
Thermochemica Acta Volume 665, 10 July **2018**, Pages 76-84
17. **Yurekli Y, Yildirim M, Aydin L, Savran M,**
Filtration and Removal Performances of Membrane Adsorbers.
Journal of Hazardous Materials, Volume 332, 15 June **2017**, Pages 33-41
18. **Deveci HA, Aydin L, Artem HS**
Buckling optimization of composite laminates using a hybrid algorithm under Puck failure criterion constraint.
Journal of Reinforced Plastics and Composites, **2016**-35(16) 1233-1247
19. **Aydin L, Artem HS,**
Comparison of Stochastic Search Optimization Algorithms for the Laminated Composites under Mechanical and Hygrothermal loadings-
Journal Of Reinforced Plastics And Composites Volume:30, Issue 14, Pages 1197-1212, **2011**
20. **Yardimoglu B, Aydin L,**
Exact Longitudinal Vibration Characteristics of Rods with Variable Cross-Sections,
Shock And Vibration- Volume: 18 Issue: 4 Pages 555-562, **2011**
21. **Artem HS, Aydin L,**
Exact solution and dynamic buckling analysis of a beam-column system having the elliptic type loading
APPLIED MATHEMATICS AND MECHANICS- Volume: 31 Issue: 10 Pages 1317-1324, **2010**
22. **Aydin L, Artem HSA,**
Axisymmetric crack problem of thick-walled cylinder with loadings on crack surfaces, **ENGINEERING FRACTURE MECHANICS** Volume: 75 Issue: 6 Pages: 1294-1309 , 2008.
23. **Aynur Ayvalik, Levent Aydin**
An alternative and superior optimization for buckling of graphite/epoxy composite laminates by Modified Nelder-Mead Algorithm
(Under Review 7 Eylül 2022) Philosophical Magazine
24. **Melih Savran, Levent Aydin**
A New Strategy for Manufacturing, Modeling, and Optimization of 3D Printed Polylactide based on Multiple Nonlinear Neuro Regression Analysis and Stochastic Optimization Methods **(Under Review 25 Temmuz 2022)Archive of Applied Mechanics**
25. **Melih Savran, Levent Aydin, İzel Ok, Ahmet Aykaç**
Mathematical Modeling and Optimum Design of Zinc Oxide Nanostructures Modified Carbon Fiber Reinforced Polymethylmethacrylate-based Bone Cement Composite Using Machine Learning Methods",
(Under Review 4 Eylül 2022) The International Journal of Advanced Manufacturing Technology.
26. **Savaş Öztürk Levent Aydin, Mucahit Stüçü**
An alternative approach to PDE modeling: Neuro-regression analysis of heat storage performance of PCM/mortar composite
(Under Review)
27. **Ümmühan Gümüş, Didem Kale, Levent AYDIN,**
A New Design Strategy with the combination of Neuro-regression and Stochastic Optimizations to Examine Effect of the Nodes on the Hyperelastic Gasket **(Under Review)**

Journal Papers

28. **Recep TÜRKOĞLU , Levent AYDIN, Elif ARAS GÜLTÜRK**
Modeling and Optimum Parameters of CO₂ Laser MIG Hybrid Welding Process
The International Journal of Materials and Engineering Technology 004 (2021) 91-100
29. **Tunahan ÇİFTÇİ, Levent AYDIN, İrem ERTEN,**
Optimization of Stamping Process Parameters.
International Journal of Computational and Experimental Science and Engineering. Vol. 7-No.2 (2021) pp. 50-56.
30. **Serap TANRIVERDİ, Levent AYDIN**
Optimization of Process Parameters for Green Composites in Abrasive Water Jet Machining Process Using Neuro-Regression Analysis.
J. Artif. Intell. Data Sci. 1(1), (2021), 71-79.
31. **Gamze ÖZAKINCI, Levent AYDIN**
Electron Beam Welding (EBW) of Aerospace Alloy (Inconel 825): Optimization and Modeling of Weld Bead Area.
J. Artif. Intell. Data Sci. 1(1), (2021), 106-115
32. **Levent Aydın, H. Seçil Artem, Melih Savran,** Genetik Algoritma Kullanılarak Boyutsal Kararlı Kompozit Malzemelerin Optimizasyonu.
AKU J. Sci. Eng. 17 (2017) 035902 (1136-1145)

33. **Ozan Ayakdaş, Levent Aydın, Melih Savran, Nilay Küçükdoğan, Savaş Öztürk**
Optimal design of the type III hydrogen storage tank for different carbon/epoxy materials by modified differential evolution.
Res. Eng. Struct. Mat. Vol. 5 Iss. 2 (2019) 189-201
34. **Mehmet Akçair, Melih Savran, Levent Aydın, Ozan Ayakdaş, Savaş Öztürk, Nilay Küçükdoğan**
Optimum Design of Anti-Buckling Behaviour of Graphite/Epoxy Laminated Composites by Differential Evolution and Simulated Annealing Method.
Res. Eng. Struct. Mat. 5(2) (2019) 175-188
35. **Melih Savran, Levent Aydın**, Geliştirilmiş simulated annealing algoritması kullanılarak minimum fiyat, minimum ağırlık ve maksimum doğal frekans açısından hibrit grafit-keten/epoksi tabakalı kompozitlerin optimum tasarımı".
Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi. DEU FMD 21(63), 833-844, 2019
36. **Mehmet SARI, Levent AYDIN**, Karıştırma döküm yöntemi ile üretilen kırmızı çamur nanopartikül takviyeli alüminyum matrisli kompozitlerin hacimsel aşınmasında takviye ve deformasyon etkilerinin optimizasyonu **(Under Review)**

International Conference Papers

1. **Batuhan Dođdu, Onur Ertuđrul, Levent Aydın**
Effect of Nb, Ti and B Element Ratios on the Grain Size of A356 Castings and Optimization by Multiple Regression Method
11. INTERNATIONAL CONGRESS OF ACADEMIC RESEARCH, 2023
2. **Batuhan Dođdu, Onur Ertuđrul, Levent Aydın, Caner Kalender**
Determination and Optimization of the Effect of Nb, Ti and B Element Ratios on the Tensile Test Results of A356 Alloy by Full Factorial Design of Experiment
11. International Aluminum Symposium (ALUS'11), 2023
3. **Mustafa DİNÇ, Eslem KAVAS, Levent AYDIN, Melih Savran, Semih Gökhan Aydın**
Nöro Regresyon Yaklaşımı ile Stokastik Metot Tabanlı Plastik GranüllerİN Kurutma Prosesi Optimizasyonu
**9th INTERNATIONAL ERCİYES CONFERENCE ON SCIENTIFIC RESEARCH
July 17-18, 2023, Kayseri, TURKEY**
4. **Hande Parlak, Levent Aydın, Melih Savran**
Natural Frequency Optimization of Glass Reinforced Composite Driveshaft for Automotive Industry
3rd International Artificial Intelligence and Data Science Congress, 2023, İzmir, Türkiye
5. **Berkay Güner, Levent Aydın, Melih Savran**
Kompozit Taşınabilir Hava Savunma Sisteminin Yapay Sinir Ağları Tabanlı Regresyon Analizi ve Stokastik Optimizasyon Metotları Kullanılarak Tasarımı
3rd International Artificial Intelligence and Data Science Congress, 2023, İzmir, Türkiye
6. **Berkay Ayberk Karaman, Nihat Berfe Tunalı, Levent Aydın, Melih Savran**
Artificial Intelligence based Mathematical Modeling and Optimization of Automotive Body-in-White for Maximum Natural Frequency
3rd International Artificial Intelligence and Data Science Congress, 2023, İzmir, Türkiye
7. **Eren Güçlüer, Levent Aydın, Melih Savran**
Plastik Enjeksiyon Kalıplama Yönteminde Çarpılma Etkilerini Minimize Etmek için Nöro-Regresyon ve Stokastik Optimizasyon Yöntemlerinin Kullanımı
3rd International Artificial Intelligence and Data Science Congress, 2023, İzmir, Türkiye
8. **Fikri Ümit Özen, Murat Ozancı, Levent Aydın, Melih Savran**
Design and Modeling of Perforated Steel Armor Plates for Ballistic Protection Using Neuro Regression Approach
3rd International Artificial Intelligence and Data Science Congress, 2023, İzmir, Türkiye
9. **Levent Aydın, Ümit Okan Yazıcı**
Neuro Regression Based Methodology for Optimizing the Grain Size
3rd International Artificial Intelligence and Data Science Congress, 2023, İzmir, Türkiye
10. **Melih SAVRAN, Hande PARLAK, Levent AYDIN**
Tabakalı Kompozit Malzemeler için Doğal Frekans Aralığı Analizinde Tam Faktöriyel Deney Tasarımı, Yapay Sinir Ağları Tabanlı Regresyon ve Stokastik Optimizasyon Kullanılarak Alternatif Formülasyon Geliştirilmesi
II. Kocatepe Mühendislik Bilimleri Öğrenci Sempozyumu, 22-24 Mayıs 2023: Afyon, Türkiye.
11. **A. Harun SAYI, Emre A. HASANOGLU, Ahmet B. YILMAZ, Levent AYDIN , H. Secil ARTEM**
Buckling Force Prediction of a Tie Rod Using Neuro-Regression Approach by Stochastic Search Methods

**5 th International Conference on Natural and Applied Science and Engineering(ICNASEN-2023), 26-28 May 2023, Ürgüp-
Nevşehir-TURKEY**

- 12. Levent ÇOLAKOĞLU, Melih SAVRAN, Gülperi Feyza YAVUZ, Hande PARLAK, Levent AYDIN**
Neuro-Regression Modelling and Optimization of Aluminum 6061 Surface Roughness for Turning Process
1st International Conference on Trends in Advanced Research, March 4-7, 2023 : Konya, Turkey
- 13. Melih SAVRAN, Hande PARLAK, Levent AYDIN**
Kompozit Malzemelerde Doğal Frekans Aralığı Analizi için Box Behnken Deney Tasarım Metodu, Nonlineer Nöro Regresyon ve Stokastik Optimizasyon Kullanılarak Yeni Bir Formülasyon Geliştirilmesi
1st International Conference on Trends in Advanced Research, March 4-7, 2023 : Konya, Turkey
- 14. Fatih İlgen, Melih Savran, Levent Aydın**
Mathematical Modeling and Optimization of 3d Printed Polylactide Material for Maximum Tensile Strength Using Multiple Nonlinear Regression Analysis
1st International Conference on Frontiers in Academic Research, February 18-21, 2023, Konya, Turkey
- 15. Hande PARLAK, Melih SAVRAN, Levent AYDIN**
Optimization of Critical Torsional Buckling Load of Glass Reinforced Composite Driveshaft for Automotive Industry.
1st International Conference on Frontiers in Academic Research, February 18-21, 2023, Konya, Turkey
- 16. Melih Savran, Olcay Şan, Hande Parlak, Levent Aydın**
Optimizing the Work-Piece Temperature Rise during 2.5-D Milling of Inconel 625 by Using Neuro-Regression Analysis.
1st International Conference on Frontiers in Academic Research, February 18-21, 2023, Konya, Turkey
- 17. Fatih İlgen, Melih Savran and Levent Aydın**
Stochastic Optimization of 3-D Printing Process Parameters for Surface Roughness of Polylactic Acid Material using Regression Analysis.
3rd International Conference on Applied Engineering and Natural Sciences ICAENS 2022
- 18. Mert Kırıkoglu, Melih Savran, Levent Aydın**
Optimization of Process Parameters for Minimum Acceleration on Turning Machine by Using Stepwise Nonlinear Regression Analysis.
6th International Students Science Congress , İzmir, 20-21 May 2022.
- 19. İzlem Bakar Özçiçek, Levent Aydın**
Neuro-Regression Analysis Based Modelling of Pulsed Metal Inert Gas Welding Process Parameters Including Optimization
- 20. Ali İrşad Moğul, Levent AYDIN, Elif GÜLTÜRK**
A Novel Optimization Approach To Estimating Energy Consumption In Machining
2nd INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS / Cappadocia-Nevsehir, June 17-19, 2022.
- 21. Sefa HİNTİ, Levent AYDIN, Elif ARAS GÜLTÜRK**
A Novel Approach For Optimizing The Machinability Of Ph Stainless Steel On Cnc Turning
International Conference on Global Practice of Multidisciplinary Scientific Studies Dedicated to the 100th Anniversary of "Georgian Technical University - GTU" Tbilisi-Georgia, Georgian Technical University, June 24-26, 2022.
- 22. Halil İbrahim YAVUZ, Melih SAVRAN, Levent AYDIN**
Stochastic Optimization of Bead Geometry Parameters with Nonlinear Neuro Regression Analysis for Submerged Arc Weldment Process.
Ases International Health, Engineering And Sciences Congress, Ankara, 7-8 May 2022.
- 23. Zeynep GÜNTEKİN, Melih SAVRAN, Levent AYDIN**
Stochastic Optimization of Battery Pack Enclosure Process based on Nonlinear Neuro-Regression Analysis
Ases International Health, Engineering And Sciences Congress, Ankara, 7-8 May 2022.
- 24. Fatih İlgen, Melih Savran, Levent Aydın**
Modeling And Optimization of Weld Residual Stresses Using Neuro-Regression Analysis
8th International Conference on Multidisciplinary Sciences, 2-4 March 2022, Antalya.
- 25. Mustafa Ülger, Melih Savran, Levent Aydın**
Design and Optimization of Chassis Frame under Minimum Weight, Deflection and Stress Consideration Using Nonlinear Neuro Regression Analysis
8th International Conference on Multidisciplinary Sciences, 2-4 March 2022, Antalya.
- 26. Ömer Faruk DALKILIÇ, Levent AYDIN, Elif ARAS GÜLTÜRK**
Optimization of Process Parameters for Minimizing Surface Roughness In Abrasive Water Jet Machining
International Cappadocia Scientific Research Congress, 15-17 December 2021

27. **Begüm KAVAK, Levent AYDIN, Elif ARAS GÜLTÜRK**
A Novel Approach for Optimization of High Speed End Milling Parameters
International Congress on Multidisciplinary Natural Sciences, Ankara, 2021
28. **Umut ÇİFTÇİOĞULLARI, Levent AYDIN, Elif ARAS GÜLTÜRK**
Neuro Regression Analysis and Optimization of Laser Powder Deposition AlSi10Mg Alloy
International Congress on Multidisciplinary Natural Sciences, Ankara, 2021
29. **Mustafa DİNÇ , Turan SARGIN , Levent AYDIN, Elif ARAS GÜLTÜRK**
Optimum Design of the Rocket's Sub-units Based on Neuro-Regression Approach for Modeling
1. Uluslararası Yapay Zeka ve Veri Bilimi Kongresi 26-28 November, 2021 İzmir, Turkey
30. **Kemal Bartu Aydın, Levent Aydın, Fethullah Güneş.**
Stochastic Optimization of TiO₂-Graphene Nanocomposite by Using Neuro-Regression Approach for Maximum Photocatalytic Degradation Rate.
5th International Students Science Congress. (2021), İzmir, Turkey
31. **Mustafa Dinç, Turan Sargin, Levent Aydın.**
Non-Linear Multiple Neuro-Regression Modeling, Optimum Design, And Analysis of the Rocket's Different Sub-Units. **4th International New York Conference On Evolving Trends In Interdisciplinary Research & Practices, May 2-4, 2021 Manhattan, New York City.**
32. **Emre Görkem Öztürk, Levent Aydın.**
Regresyon Modelleme Tekniklerinin Kullanıldığı İmal Usülleri Çalışmalarının Sınanması ve Optimizasyonu
11. Uluslararası Bilimsel Araştırmalar Kongresi - Fen ve Mühendislik Bilimleri - (UBAK), 20 - 21 Ağustos 2021.
33. **Alif Ngimbi Diambu, Levent Aydın.**
Neuro-Regression Approach in Optimization of Predicted Enthalpy of a Refrigeration System with Two-Stage Compression and Intercooling
4 th International Students Science Congress 2020, İzmir - Turkey
34. **K.Bartu Aydın, Levent Aydın, Melih Savran, Harun Sayı, Ozan Ayakdaş & H.Seçil Artem.**
Stochastic Optimization of Graphene Sheets Subjected to Drilling Operation Using Neuro-Regression Approach for Maximum Mechanical Strength
4 th International Students Science Congress 2020, İzmir - Turkey
35. **G. Feyza Yavuz , Melih Savran, Levent Aydın, Secil Artem**
Stochastic Optimization of Friction Stir Welded AA7039 Aluminum Alloy Joints Using Neuro-Regression Approach for Maximum Tensile Strength
4 th International Students Science Congress 2020, İzmir - Turkey
36. **Recep Türkoğlu, Levent Aydın, Elif Gültürk**
Modeling and optimum parameters of CO₂ laser MIG hybrid welding process.
The International Conference of Materials and Engineering Technology (TICMET'20) 2020
37. **Yusuf Mert Baytok, Levent Aydın, Elif Gültürk**
Stochastic Optimization of Process Parameters For Pure Titanium Using Wire Electric Discharge Machining WEDM Process
4th International Conference on Engineering Technologies (ICENTE'20) 2020
38. **Şahin GÜNGÖR, Levent AYDIN, Büşra KAYA, Umut CEYHAN, Ziya Haktan KARADENİZ**
Analysis of Backward and Forward Effects on a Grooved Co-axial Heat Exchanger by Response Surface Methodology
Clima 2019, Romania.
39. **Emin Burak Gezer, Levent Aydın, Melih Savran, Ozan Ayakdaş, Nilay Küçükdoğan, Savaş Öztürk**
A Comparative Study on Crashworthiness Optimization of Vehicle by Using Stochastic Methods
HEZARFEN International Congress of Science, Mathematics and Engineering, 8-10 November 2019- Ege University.
40. **Nilay Küçükdoğan, Savaş Öztürk, Melih Savran, Ozan Ayakdaş, Levent Aydın**
Optimization of Electrospinning Parameters in the Production of PCL Scaffold
HEZARFEN International Congress of Science, Mathematics and Engineering, 8-10 November 2019- Ege University
41. **Nilay Küçükdoğan, Savaş Öztürk, , Ozan Ayakdaş, Melih Savran, Levent Aydın**
Optimization of Process Parameters in Deposition of Stainless Steel on Low Carbon Steel by Friction Surfaced Deposit
HEZARFEN International Congress of Science, Mathematics and Engineering, 8-10 November 2019- Ege University
42. **Şahin GÜNGÖR , Ziya Haktan KARADENİZ, Umut CEYHAN , Levent AYDIN**
A Preliminary Study For Optimized Heat Exchangers: Parametric Analysis Of Axisymmetric Circular Grooved Model
7th Rostocker International Conference: "Thermophysical Properties For Technical Thermodynamics", 26-27 July, 2018, University of Rostock, Germany

43. **Şahin GÜNGÖR , Ziya Haktan KARADENİZ, Umut CEYHAN , Levent AYDIN**
Local Heat Transfer Optimization Of Circular Grooved Co-Axial Heat Exchangers
7th Rostocker International Conference: "Thermophysical Properties For Technical Thermodynamics", 26-27 July, 2018, University of Rostock, Germany
44. **Melih SAVRAN, Levent AYDIN, Ozan AYAKDAŞ, Nilay KÜÇÜKDOĞAN, Savaş ÖZTÜRK**
Design And Analysis Of Interply Hybrid Laminated Composite For Maximum Natural Frequency And Minumum Cost Using Random Search Algorithm And Finite Element Method
KOMPEGE-2018
45. **Ozan AYAKDAŞ, Levent AYDIN, Melih SAVRAN, Nilay Küçükdoğan, Savaş Öztürk**
Stacking Sequences Design Of The Cylindrical Composite Pressure Vessel For Different Carbon/ Epoxy Materials By Using Stochastic Optimization Methods
KOMPEGE-2018
46. **Melih SAVRAN, Levent AYDIN, Ozan AYAKDAŞ, Nilay KÜÇÜKDOĞAN, Savaş ÖZTÜRK**
Design And Analysis Of Flat Foam Core Sandwich Panels For Maximum Fundamental Frequency
KOMPEGE-2018
47. **Nilay Kucukdogan, Savas Ozturk, Levent Aydin, Ozan Ayakdas, Melih Savran**
Theoretical Modeling Of Thermal Conductivity Of Alumina/Silicone Rubber Composites
KOMPEGE-2018
48. **Barkin Büyükçakir, Furkan Elmaz, Savaş Şahin, Levent Aydin**
Stochastic Optimization of PID Parameters for Twin Rotor System with Multiple Nonlinear Regression
CEİT 2018, 6th International Conference on Control Engineering & Information Technology, October 2018
49. **Melih Savran, Levent Aydin, Ozan Ayakdas, Savaş Öztürk, Nilay Küçükdoğan**
Optimum Design of Glass/Epoxy and Flax/Epoxy Laminated Composite Plates for Maximum Frequency Using a Stochastic Optimization Method
1st International Symposium on Light Alloys and Composite Materials March 22-24, 2018 Karabük University, Karabük, TURKEY
50. **Mehmet Akçair, Melih Savran, Levent Aydin, Ozan Ayakdas, Savaş Öztürk, Nilay Küçükdoğan**
Optimum Design of Anti-Buckling Behavior of Graphite/Epoxy Laminated Composite Plate Using Differential Evolution Method
1st International Symposium on Light Alloys and Composite Materials March 22-24, 2018 Karabük University, Karabük, TURKEY
51. **Ozan Ayakdas, Levent Aydin, Melih Savran, Nilay Küçükdoğan , Savaş Öztürk**
Design and Optimization of the Type III Pressure Vessel for Different Carbon/Epoxy Materials by using Differential Evolution Method
1st International Symposium on Light Alloys and Composite Materials March 22-24, 2018 Karabük University, Karabük, TURKEY
52. **Nilay Kucukdogan, Savas Ozturk, Levent Aydin**
Modeling of Thermal Conductivity of Graphite/Polystyrene Composites
1st International Symposium on Light Alloys and Composite Materials March 22-24, 2018 Karabük University, Karabük, TURKEY
53. **Levent Aydin, Ahmad Mustafa Jebran**
Stem Cell Differentiation and Differential Equations
2 nd International Students Science Congress 4-5 May 2018, İzmir - Turkey
54. **Murat HAKTANIR, Samet KABACAOĞLU , Erdem ZORER , Levent AYDIN**
Recent studies on DMF Technologies used in Automotive Industry
3'rd International Symposium On Industrial Design & Engineering 22-24 November 2018- Antalya Gazi Üniversitesi, Ankara
55. **Melih Savran, Levent Aydin ,** Optimum Design Of Hybrid Carbon-Glass/Epoxy Laminated Composite For Minimum Cost And Maximum Frequency Using A Stochastic Optimization Method
5th International Polymeric Composites Symposium And Workshops November 2017. İzmir
56. **Ozan Ayakdas Levent Aydin, H. Secil Artem , Harun Sayi,** Failure Analysis and Optimization of the Cylindrical Part of Type III Hydrogen Storage Tanks.
5th International Polymeric Composites Symposium And Workshops November 2017. İzmir
57. **Nilay Küçükdoğan, Levent Aydin, Mücahit Sütçü** Investigation of Thermal Decomposition Kinetics Of Colemanite/Polypropylene Composites: Activation Energies with Thermogravimetric Analysis.
5th International Polymeric Composites Symposium And Workshops November 2017. İzmir
58. **Nilay Küçükdoğan, Levent Aydin, Mücahit Sütçü** Kolemanit/Polipropilen Kompozitlerin Termal Dekompozisyon Kinetiğinin İncelenmesi: Termogravimetrik Analiz İle Aktivasyon Enerjisinin Hesaplanması. 5th International Polymeric Composites Symposium And Workshops November 2017. İzmir

59. **Harun Sayi, H. Secil Artem, Levent Aydin, Ozan Ayakdaş** Stacking Sequences Design of Composite Hydrogen Storage Tanks Using Optimization Algorithms
5th International Polymeric Composites Symposium And Workshops November 2017. İzmir
60. **Levent Aydin, Ahmad Mustafa Jebran** Dynamic Neuron Model and Differential Equations
International Students Science Conference 5-6 May 2017, İzmir – Turkey
61. **Levent AYDİN, Burcu KARACA UĞURAL, Esen ÖZDOĞAN** Design Of Dimensionally Stable Flax/Polypropylene Composite Plates By Using Stochastic Optimization
4th International Polymeric Composites Symposium, Exhibition And Brokerage Event. May 2015. İzmir
62. **Burcu Karaca Uğural, M.Özgür Seydibeyoğlu, Seçkin Erden, Levent Aydin, Esen Özdoğan**
Physical Characterization Of Unidirectional Flax/Polypropylene Composite Plates Manufactured From Commingled Yarns.
4th International Polymeric Composites Symposium, Exhibition And Brokerage Event. May 2015. İzmir
63. **H. Arda Deveci, Levent Aydin, and H. Secil Artem** Optimum Design For Anti-Buckled Laminated Composites Considering Puck Failure Criterion By Genetic Algorithm.
Proceedings of the Fourth International Conference on Mathematical and Computational Applications June 11-13, 2013. Manisa, Turkey, pp.372-381
64. **Deveci HA, Soyleyici MU, Aydin L, Artem HS** Weight Optimization of the Laminated Composites as an Aircraft Structure Material Using Different Failure Criteria
ISCSE 2011 2nd International Symposium on Computing in Science and Engineering (Kusadasi)
65. **Aydin L, Artem HS**, Single and multi-objective Genetic Algorithm Optimizations of the Laminated Composites used in Satellite Structures
AzCIFTOMM 2010 International Symposium of Mechanism and Machine Science (İzmir)
66. **Aydin L, Artem HS**, Multiobjective Optimization of Fiber Reinforced Composite Laminates For Stiffness and Thermal Expansion Coefficient Using Genetic Algorithm ,
AIAC 2009, 5th Ankara, International Aerospace Conference (Ankara)
67. **Aydin L, Artem HS**, Multiobjective Genetic Algorithm Optimization Of The Composite Laminates As A Satellite Structure Material For Coefficient Of Thermal Expansion And Elastic Modulus, RAST 2009,
4th International Conference on Recent Advances in Space Technology (İstanbul) (CP Citation İndex)
68. **Aydin L, Artem HSA**, Calculation of Stress Intensity Factors in a Hollow Cylinder Under Axial Tension with a Crack of Ring Shape, IFC 2005, 7th International Fracture Conference(Kocaeli)

National Conference Papers

69. **Melih Savran, Hande Parlak, Levent Aydın.**
Tabakalı Kompozit Malzemeler için Doğal Frekans Aralığı Analizinde Tam Faktöriyel Deney Tasarımı, Yapay Sinir Ağları Tabanlı Regresyon ve Stokastik Optimizasyon Kullanılarak Alternatif Formülasyon Geliştirilmesi.
II. Kocatepe Mühendislik Bilimleri Öğrenci Sempozyumu, 22 - 24 Mayıs 2023
70. **Özay AKSOY, Merve MOCAN, Mert YÜCETÜRK, Elif ALYAMAÇ, Levent AYDIN, Bahadır GÜRİSOY, Mehmet Özgür SEYDİBEYOĞLU,**
Perlit biyokompozitlerinin üretilmesi ve karakterizasyonu.
International Pumice and Perlite Symposium 2021 BİTLİS
71. **M. Savran, M. Öncül, M. Yıldız, L. Aydın, K. Sever,**
Hibrit Polimer Kompozitlerin Dinamik-Mekanik Özelliklerinin Çoklu Nonlineer Nöro-Regresyon Yöntemiyle Modellenmesi ve Optimizasyonu.
22. Ulusal Mekanik Kongresi, 2021, Adana.
72. **Şahin GÜNGÖR, Levent AYDIN, Ziya Haktan KARADENİZ,**
Eş-eksenli Yivli Isı Değiştirici Üzerinde Öncül ve Geri Etkilerin Tepki Yüzeyi Yöntemi ve Stokastik Optimizasyon Algoritmaları ile Analizi
14. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ – 17-20 NİSAN 2019/İZMİR
73. **Şahin GÜNGÖR, Levent AYDIN, Ziya Haktan KARADENİZ**
Isı Değiştirici Örneği Üzerinde Geri ve Öncül Etkilerin Tepki Yüzeyi Yöntemi ve Stokastik Optimizasyon Algoritmaları ile Analizi,
14. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ – 17-20 NİSAN 2019/İZMİR
74. **Soyleyici MU, Deveci HA , Artem HS, Aydin L,** Stacking Sequences Optimization of the Anti-Buckled Laminated Composites Considering Various Failure Criteria
KOMPEGE 2013 2. Ulusal Ege Kompozit Malzemeler Sempozyumu (İzmir)

Research Projects

1. **(TÜBİTAK 1001)**
Endonazal Kafa Tabanı Ameliyatı için Endoskop Tutucu Olarak Kullanılacak, Kendinden Dengeli ve Uzak Hareket Merkezli Robot Manipülatörü Tasarımı (BalanScope) **(Researcher)**

2. **(TÜBİTAK 1501 Sanayi Ar-Ge Projeleri Destekleme Programı)**
Proje Numarası: 3192167
Optimizasyon Algoritmaları İle Yüksek Performanslı Tam Fonksiyonel İtfaiye Kurtarma Sepeti Tasarımı Ve Geliştirilmesi.
VOLKAN İTFAİYE A.Ş. **(Consultant)**
3. **(TÜBİTAK-TEYDEB 2018-2020)**
Mercedes Sprinter araçlar için, esnek volanların tasarımı ve prototipinin imali.
DÖNMEZ DEBRİYAJ A.Ş. **(Consultant)**
4. **(TÜBİTAK-TEYDEB 2018-2020)**
Mercedes Sprinter araçlar için kurma mekanizmalı debriyaj baskısı tasarımı ve prototipinin imali
DÖNMEZ DEBRİYAJ A.Ş. **(Consultant)**
5. **(TÜBİTAK-1003 2016-2018)**
Hidrojen Depolanması ve Dağıtım Amaçlı Yüksek Basınca Dayanıklı Hafif Kompozit Tank Malzemelerinin ve Sistemlerinin Tasarlanması, Optimizasyonu ve Prototip İmalatlarının Gerçekleştirilmesi **(Researcher)**
6. **(TÜBİTAK-TEYDEB 2013-2015)**
Soğuk Dövme ile Bağlantı elemanları Üretiminde Kullanılan Zimbaların Kaplama Tiplerine Göre Aşınma Modellerinin Oluşturulması ve Zimba Geometrisinin Optimizasyonu (NORM CIVATA A.Ş.) **(Consultant)**
7. **(TÜBİTAK-TEYDEB 2022-2024)**
Granül Plastiklerin Kurutma Sonrası Anlık (In-Line) Nem Ölçümü, Verinin Monitörize Edilip İzlenebilirlik Verisinin Sağlanması ve Kurutma Optimizasyon Verisi Geliştirilmesi
PLASMOT A.Ş. **(Consultant)**
8. **TÜBİTAK-2209-A (2022) Pilot Güvenliği Öncelikli Şasi Ön Takla Barı Optimal Tasarım Ve Analizi (Consultant)**
9. **TÜBİTAK-2209-A (2022) Direksiyon Sistemi Pinyon Dişli Yuvasının Topolojik Optimizasyonu (Consultant)**
10. **KOSGEB 2023-2024**
[1086511]Olumsuz BLDC Motor ve Aktüatör Sisteminin Nonlineer Optimizasyon Metoduyla Tasarımı, Üretimi ve Testlerinin Yapılması
(Consultant)
11. **TUSAŞ TAİ-BAP 2023-2024**
Güçlendirilmiş Kompozit Panelin Çok Amaçlı Optimizasyonu **(Consultant)**
12. **(DPT- 2005)**
Development of Composite Armour Materials:İzmir Institute of Technology **(Researcher)**
13. **(DPT 2009-2011)**
İZTECH Composite Materials Research Center Project **(Researcher)**
14. **(İYTE-BAP 2009İYTE16)**
Fiber Katkılı Tabakalı Polimer Matris Kompozitlerin Termo-Mekanik Özelliklerinin Genetik Optimizasyon Kullanılarak Geliştirilmesi **(Researcher)**
15. **2012-FMBP-02**
Temel Bilimler Dersleri İçin Laboratuvar Altyapısı Kurulması **(Director)**
16. **2013-2-FMBP-51**
Uydu ve Havacılıkta Kullanılabilecek Kompozit Malzemelerin EGO Optimizasyon Yöntemi ile Geliştirilmesi ve Tasarımı **(Director)**
17. **2015-ÖNP-MÜMF-0012**
Grafen Elektronik Malzeme Sentezi, Bant Aralığı Mühendisliği Ve Şeffaf İletken Film Alanında Uygulanması **(Researcher)**
18. **2017-ÖNAP-MÜMF-0005**
Bina İle Bütünleşik Tasarlanmış Mekanik Tesisat Bileşenlerinin 3 Boyutlu Eklemeli Üretimle Uyumlu Optimizasyonu: Isı Değiştirici Uygulaması **(Researcher)**
19. **2019-GAP-MÜMF-0002**
Stokastik Optimizasyon Yöntemleri İle Keten/Polipropilen Biyokompozit Plakaların Tasarımı Ve Üretimi **(Director)**
20. **2021-GAP-MÜMF-0042**
Grafen Tabanlı Nanokompozit Yapının Sentezi, Optimizasyonu ve Elektromanyetik Dalga Soğurma Özellikleri (Researcher)
21. **2022-GAP-MÜMF-0024**
İnorganik çekirdeklendiricilerin polipropilenin termal ve mekanik özellikleri üzerine etkilerinin araştırılması. (Researcher)

INDUSRTIAL COLLABORATIONS



CERTIFICATES

1. Recent development in Beams and Plate Theories 2013 (Prof. J Reddy)
2. The 3rd International Workshop on Physics-Based Modelling of Material Properties and Experimental Observations with special focus on Plasticity and Creep, June 2-4, 2014
3. Fıges Ar-Ge Günü 2013
4. Proje Yazma Eğitimi İzmir Kalkınma Ajansı (İZKA) (5 Aralık 2012)
5. Workshop on Numerical Methods for Differential Equations (İztech 2006)
6. International Summer School on Elliptic Curve Essentials and Cryptography (İztech 2003)
7. Malzeme Bilgisi (Elginkan Vakfi 2000)
8. Kuruluş İçi Kalite Tetkikçisi (Elginkan Vakfi 1999)
9. ISO 9001 (Elginkan Vakfi 2000)

Activities:

1. Associate Editor in JOURNAL OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE
2. Editorial Board Member in ENGINEERING MATHEMATICS

PhD Students

1. Melih Savran (Topology Optimization)
2. Sezgin Yurtdas (NORM CİVATA AŞ)
3. Okan Yazıcı (BMC AŞ)
4. Ahmet Berk Yılmaz (ZF Lemförder)
5. Mehmet Sari (TAI-TUSAŞ)
6. Mehmet Akçair
7. Nur Aktaş (Bakioğlu Holding)
8. Eren Bozkurt (CMS)

MSc Students

1. Ozan Ayakdaş (Hydrogen Pressure Vessel Design) (2015-2018)
2. Mehmet Akçair (Antibuckling Behaviour of Composites) (2014-2017)
3. Aynur Ayvalık (Bio-composite design and failure) (2014-2017)
4. Fatih Turhan (Welding Process) (2015-2017)
5. Erhan Nergis (Generator Design and Optimization) (2016-2018)
6. Ümmühan Gümüş (Dual-mass flywheel torsional vibration frequency optimization)(2018)
7. İzlem Bakar (Topology Optimization)(2020-)
8. Emre Görkem Öztürk (Optimization)(2020-2021)
9. Mustafa Dinç (PLASMOT AŞ) (2020-2023)
10. Kemal Bartu Aydın
11. Batuhan Doğdu(CMS)
12. Hasan Çakmak (2022)
13. Gizem Güler (NORM CİVATA AŞ)
14. Turan Sargın
15. Halil İbrahim Yavuz