

## Prof. OZAN TEKİNALP

### Personal Information

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### International Researcher IDs

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ScopusID: 6602683154

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### Education Information

Doctorate, University of Michigan, College of Engineerin, Mechanical Engineering And Applied Mechanics Department, United States Of America 1983 - 1988

Postgraduate, University of Michigan, College of Engineering, Mechanical Engineering and Applied Mechanics Department, United States Of America 1982 - 1983

Undergraduate, Istanbul Technical University, Makine Fakültesi, Makine Mühendisliği Bölümü, Turkey 1976 - 1981

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Dynamic Modeling of Drill Bit Vibrations, University Of Michigan, Mechanical Engineering And Applied Mechanics Department, 1988

### Research Areas

Aeronautical and Space Engineering, Aeronautical Engineering , Space Engineering, Flight Sciences, Aircraft System Technologies, Task, Flight Dynamics and Stability, Flight Control Systems, Spacecraft Dynamics Modeling, Orientation and Orbit Control, Engineering and Technology

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, 1988 - Continues

## Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, 2009 - 2018

### Advising Theses

- Tekinalp O., LONG TERM AND SAFE CLUSTER FLYING FOR DISTRIBUTED SPACE SYSTEMS, Doctorate, B.YAĞLIOĞLU(Student), 2023
- Söken H. E., Tekinalp O., Realtime Magnetometer Calibration for Spinning Aerospace Vehicles, Postgraduate, M.EFE(Student), 2022
- TEKİNALP O., Structured H-infinity controller design and analysis for highly maneuverable jet aircraft, Postgraduate, S.VOLKAN(Student), 2022
- TEKİNALP O., Evaluation of guidance methods for a swarm of munitions, Postgraduate, A.ALPA(Student), 2021
- Söken H. E., Tekinalp O., Design of a vision-based three-axis attitude estimation algorithm for small satellites, Postgraduate, M.BURAK(Student), 2021
- Tekinalp O., Attitude and orbit control of a solar sail spacecraft for responsive operational concept, Doctorate, H.CAN(Student), 2021
- TEKİNALP O., Formation flight design using natural dynamics for halo orbiting and earth orbiting spacecraft, Doctorate, A.Kutlu(Student), 2020
- Tekinalp O., Vibration based and miniaturizable satellite attitude actuator, Doctorate, B.AKBULUT(Student), 2019
- Tekinalp O., Design, development and control of a hybrid uav, Postgraduate, A.MURATOĞLU(Student), 2019
- TEKİNALP O., Smooth slew maneuvers of flexible spacecraft, Postgraduate, S.ALTINIŞIK(Student), 2019
- Tekinalp O., Control system design and implementation of a tilt rotor UAV, Postgraduate, L.CEVHER(Student), 2019
- Tekinalp O., Modeling and control of quadrotor formations carrying aslung load, Doctorate, S.OLUMIDE(Student), 2019
- TEKİNALP O., Design, modeling and control of a hybrid UAV, Postgraduate, A.Muratoğlu(Student), 2019
- Tekinalp O., Orbit determination strategy and verification for geosynchronous satellites, Postgraduate, A.KÖKER(Student), 2019
- TEKİNALP O., Polynomial trajectory shaping guidance algorithm for multi-missile salvo attack, Postgraduate, N.BAŞAK(Student), 2018
- TEKİNALP O., Autonomous spacecraft rendezvous and docking on safe trajectories, Postgraduate, A.TEVFİK(Student), 2018
- TEKİNALP O., Development of state dependent factorized optimal control methods with application to spacecraft Coulomb formations, Doctorate, M.MEHDI(Student), 2017
- Kurtuluş D. F., Tekinalp O., Modelling and Controller Design of a VTOL Air Vehicle, Postgraduate, A.Sami(Student), 2015
- TEKİNALP O., Faux riccati equation techniques for feedback control of nonlinear and time-varying systems, Doctorate, A.PRACH(Student), 2015
- TEKİNALP O., Nonlinear guidance and control of leader-follower UAV formations, Postgraduate, S.KUMBASAR(Student), 2015
- TEKİNALP O., Separation simulation for helicopter external stores and generation of safe separation envelopes, Postgraduate, Ö.KAPULU(Student), 2015
- TEKİNALP O., Attitude control of an earth orbiting solar sail satellite to progressively change the selected orbital element, Postgraduate, Ö.ATAŞ(Student), 2014
- TEKİNALP O., System identification using flight test data, Postgraduate, O.ŞİMŞEK(Student), 2014
- TEKİNALP O., Response surface based performance analysis of an air-defense missile system, Postgraduate, K.GÜNAYDIN(Student), 2014
- TEKİNALP O., High by-pass turbofan engines aerothermodynamic design and optimization, Postgraduate, S.Arayibi(Student), 2014
- TEKİNALP O., Nonlinear control of unmanned aircraft formations, Postgraduate, S.ARIYIBI(Student), 2014
- TEKİNALP O., YAVRUCUK İ., Developing an investment decision methodology for helicopter systems related to technology factor and base price, Postgraduate, G.KARA(Student), 2014
- TEKİNALP O., Evaluation of rotorcraft system identification approaches, Postgraduate, S.KAYMAK(Student), 2013
- TEKİNALP O., Satellite attitude determination based on GPS carrier phase measurements, Postgraduate,

E.ÖZTEN(Student), 2013

TEKİNALP O., Conceptual design optimization of a nano-satellite launcher, Postgraduate, Y.EMRE(Student), 2012

TEKİNALP O., YAVRUCUK İ., Development of a UAV testbed, Postgraduate, Z.ÇAKIR(Student), 2011

TEKİNALP O., Control of a satellite with flexible smart beam during slew maneuver, Postgraduate, H.ÜREK(Student), 2011

TEKİNALP O., External geometry and flight performance optimization of turbojet propelled air to ground missiles, Postgraduate, E.DEDE(Student), 2011

TEKİNALP O., YAVRUCUK İ., Development of control allocation methods for satellite attitude control, Postgraduate, T.ÇİĞDEM(Student), 2010

TEKİNALP O., Flight control system design for an over actuated UAV against actuator failures, Postgraduate, S.İŞİK(Student), 2010

TEKİNALP O., ÖZGÖREN M. K., Attitude control of multiple rigid body spacecraft with flexible hinge joints, Postgraduate, B.AKBULUT(Student), 2009

TEKİNALP O., Multiobjective design optimization of rockets and missiles, Postgraduate, M.YAVUZ(Student), 2009

TEKİNALP O., Flight control of a tilt duct UAV with emphasis on the over actuated transition flight phase, Postgraduate, T.ÜNLÜ(Student), 2009

TEKİNALP O., YAVRUCUK İ., Multidisciplinary and multiobjective design optimization of an unmanned combat aerial vehicle (UCAV), Postgraduate, N.ÇAVUŞ(Student), 2009

TEKİNALP O., Design of kalman filter based attitude determination algorithms for a leo satellite and for a satellite attitude control test setup, Postgraduate, A.KUTLU(Student), 2008

TEKİNALP O., Flight simulation and control of a helicopter, Postgraduate, G.HİLAL(Student), 2008

TEKİNALP O., Control allocation against actuator failures in overactuated small satellites, Postgraduate, Ö.KAHRAMAN(Student), 2007

TEKİNALP O., Steering of redundant robotic manipulators and spacecraft integrated power and attitude control-control moment gyroscopes, Postgraduate, A.ALTAY(Student), 2006

TEKİNALP O., Multi objective conceptual design optimization of an agricultural aerial robot (AAR), Postgraduate, S.Özdemir(Student), 2005

TEKİNALP O., A layerwise approach to modeling piezolaminated plates, Doctorate, C.LEVENT(Student), 2005

TEKİNALP O., Multi objective conceptual design optimization of an agricultural aerial robot, Postgraduate, S.ÖZDEMİR(Student), 2005

TEKİNALP O., Simulated annealing for the generation of pareto fronts with aerospace applications /, Postgraduate, G.KARSLI(Student), 2004

TEKİNALP O., Steering laws for control moment gyroscope systems used in spacecrafts attitude control, Postgraduate, E.YAVUZOĞLU(Student), 2003

TEKİNALP O., Development of a flexible satellite simulator and associated control algorithms., Postgraduate, K.TAYLAN(Student), 2002

TEKİNALP O., Missile trajectory optimization using genetic algorithm, Postgraduate, M.SOYLUOĞLU(Student), 2001

TEKİNALP O., Optimization of north south station keeping manoeuvres for geostationary satellites, Postgraduate, Z.YILDIZ(Student), 2001

TEKİNALP O., Guidance and control of a spinning missile, Postgraduate, B.SEMERCİ(Student), 2001

TEKİNALP O., Neural network initialization of strapdown inertial navigation systems, Postgraduate, M.Özemre(Student), 2000

TEKİNALP O., Neural network initialization of strapdown inertial navigation systems, Postgraduate, M.ÖZEMRE(Student), 2000

TEKİNALP O., Multi-disciplinary design optimization of missiles, Postgraduate, M.Bingöl(Student), 2000

TEKİNALP O., Modeling and control of a tilt-duct VTOL UAV, Postgraduate, A.OKAN(Student), 2000

TEKİNALP O., Multi-disciplinary design optimization of missiles, Postgraduate, M.BİNGÖL(Student), 2000

TEKİNALP O., Missile design optimization using simulated annealing technique, Postgraduate, S.UTALAY(Student), 1999

TULUNAY Y., TEKİNALP O., Modeling and simulation of the Türksat 1B Satellite using artificial neural networks, Postgraduate, A.Türker(Student), 1999

TEKİNALP O., 3- Axis attitude control of a geostationary satellite, Postgraduate, H.ÖZGÜR(Student), 1999

TEKİNALP O., Missile design optimization using simulated annealing technique, Postgraduate, S.Utalay(Student), 1999

TEKİNALP O., TULUNAY Y., Modeling and control of beam type structures with surface bonded piezoelectric sensors and actuators, Postgraduate, B.Yağcı(Student), 1998

TEKİNALP O., Modelling and control of beam type structures with surface bonded piezoelectric sensors and actuators, Postgraduate, B.YAĞCI(Student), 1998

TULUNAY Y., TEKİNALP O., Investigation of minimum fuel maneuvers of Türksat 1B satellite with possible use of its simulator, Postgraduate, T.Erdal(Student), 1998

TEKİNALP O., Robust control of a highly maneuverable aircraft, Postgraduate, M.ERGÜN(Student), 1998

TEKİNALP O., Orbit dynamics, attitude dynamics and control: Investigation into possible applications to TURKSAT, Postgraduate, H.ÖZGE(Student), 1997

TEKİNALP O., TULUNAY Y., Orbit dynamics attitude dynamics and control:Investigation into possible applications to Türksat, Postgraduate, H.Özge(Student), 1997

TEKİNALP O., Optimal trajectories for air-to-surface missiles using direct collocation and nonlinear programming, Postgraduate, E.MURAT(Student), 1996

TEKİNALP O., Optimal trajectories for air-tosurfaces missiles using direct collocation and nonlinear programming, Postgraduate, E.Murat(Student), 1996

TEKİNALP O., Free vibration analysis of multi-layer adhesively bonded rotating beams, Postgraduate, A.KADİR(Student), 1992

TEKİNALP O., Free vibration analysis of adhesively bonded multi-layer beams and lap-joints, Postgraduate, N.ÇAĞLAYAN(Student), 1992

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

- I. **Orbit Control of an Earth Orbiting Solar Sail Satellite**  
Polat H. C., Tekinalp O.  
INTERNATIONAL JOURNAL OF AERONAUTICAL AND SPACE SCIENCES, vol.24, no.1, pp.274-283, 2023 (SCI-Expanded)
- II. **Long term and safe relative orbit design for heterogeneous spacecraft clusters**  
Yaglioglu B., TEKİNALP O.  
Advances in Space Research, vol.67, no.11, pp.3546-3558, 2021 (SCI-Expanded)
- III. **Quaternion-based nonlinear attitude control of quadrotor formations carrying a slung load**  
Ariyibi S. O., TEKİNALP O.  
AEROSPACE SCIENCE AND TECHNOLOGY, vol.105, 2020 (SCI-Expanded)
- IV. **Output-feedback control of linear time-varying and nonlinear systems using the forward propagating Riccati equation**  
Prach A., TEKİNALP O., Bernstein D. S.  
JOURNAL OF VIBRATION AND CONTROL, vol.24, no.7, pp.1239-1263, 2018 (SCI-Expanded)
- V. **Solving Constrained Optimal Control Problems Using State-Dependent Factorization and Chebyshev Polynomials**  
Gomroki M. M., Topputo F., Bernelli-Zazzera F., TEKİNALP O.  
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.41, no.3, pp.618-631, 2018 (SCI-Expanded)
- VI. **Infinite-Horizon Linear-Quadratic Control by Forward Propagation of the Differential Riccati Equation**  
Prach A., TEKİNALP O., Bernstein D. S.  
IEEE CONTROL SYSTEMS MAGAZINE, vol.35, no.2, pp.78-93, 2015 (SCI-Expanded)
- VII. **A new multiobjective simulated annealing algorithm**  
Tekinalp O., Karsli G.  
JOURNAL OF GLOBAL OPTIMIZATION, vol.39, no.1, pp.49-77, 2007 (SCI-Expanded)
- VIII. **A new steering law for redundant control moment gyroscope clusters**  
Tekinalp O., Yavuzoglu E.

AEROSPACE SCIENCE AND TECHNOLOGY, vol.9, no.7, pp.626-634, 2005 (SCI-Expanded)

- IX. **A layerwise approach to piezo-electric plates accounting for adhesive flexibility and delaminated regions**  
Erturk C., Tekinalp O.  
COMPUTERS & STRUCTURES, vol.83, pp.279-296, 2005 (SCI-Expanded)
- X. **Simulated annealing for missile optimization: Developing method and formulation techniques**  
Tekinalp O., Bingol M.  
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.27, no.4, pp.616-626, 2004 (SCI-Expanded)
- XI. **Tilt duct vertical takeoff and landing uninhabited aerial vehicle concept design study**  
Armutcuoglu O., Kavsaoglu M., Tekinalp O.  
JOURNAL OF AIRCRAFT, vol.41, no.2, pp.215-223, 2004 (SCI-Expanded)
- XII. **Turkish Small Satellite Program: Goals and policies**  
Askar M., Tekinalp O.  
ACTA ASTRONAUTICA, vol.46, pp.375-378, 2000 (SCI-Expanded)
- XIII. **Free bending vibrations of adhesively bonded orthotropic plates with a single lap joint**  
Yuceoglu U., Toghi F., Tekinalp O.  
JOURNAL OF VIBRATION AND ACOUSTICS-TRANSACTIONS OF THE ASME, vol.118, no.1, pp.122-134, 1996 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Sequential Orbit Determination Verification for Geostationary Satellites**  
KÖKER A., TEKİNALP O., YILMAZ Ü. C., ŞAKACI C.  
Advances in Astronautical Sciences, vol.175, pp.3227-3244, 2021 (Peer-Reviewed Journal)
- II. **Mission Analysis of a New Solar Sail Satellite Concept at Low Earth Orbit**  
POLAT H. C., TEKİNALP O.  
Advances in Astronautical Sciences, vol.175, pp.2387-2406, 2021 (Peer-Reviewed Journal)
- III. **Effects of geometric and process parameters on drill transverse vibrations**  
Tekinalp O., Galip Ulsoy A.  
Journal of Manufacturing Science and Engineering, Transactions of the ASME, vol.112, no.2, pp.189-194, 1990 (Scopus)
- IV. **Modeling and finite element analysis of drill bit vibrations**  
Tekinalp O., Ulsoy A.  
Journal of Vibration and Acoustics, Transactions of the ASME, vol.111, no.2, pp.148-155, 1989 (Scopus)
- V. **Modeling of drill bit transverse vibrations**  
Tekinalp O., Ulsoy A. G.  
Proceedings of SPIE - The International Society for Optical Engineering, vol.955, pp.129-134, 1988 (Scopus)
- VI. **Dynamic Modeling of Transverse Drill Bit Vibrations**  
Ulsoy A. G., Tekinalp O., Lenz E.  
CIRP Annals - Manufacturing Technology, vol.33, no.1, pp.253-258, 1984 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Development and Validation of a Fast Mid-Fidelity Comprehensive Analysis Tool for Generic E-VTOL Configurations**  
Şenipek M., Güngör O., TEKİNALP O.  
48th European Rotorcraft Forum, Wintherthur, Switzerland, 6 - 08 September 2022
- II. **Trajectory Tracking Controller Design and Simulation of a Tethered Aircraft,**  
Önen A. S., TEKİNALP O.

Airborne Wind Energy Conference (AWEC 2021), Milan, Italy, 22 June 2022

- III. **Aiding Coarse Attitude with Image-Based Three-Axis Attitude Measurements Using Multiplicative Extended Kalman Filter for Small Satellites**  
GÜZEL M. B., SÖKEN H. E., TEKİNALP O.  
2021 AAS/AIAA Astrodynamics Specialists Conference, United States Of America, 9 - 11 August 2021
- IV. **BATCH ORBIT DETERMINATION COMPARISON FOR GEOSTATIONARY SATELLITES**  
KÖKER A., AYDIN S., DAĞ E., YILMAZ Ü. C., TEKİNALP O.  
2021 ESA Guidance Navigation and Control Conference, United States Of America, 22 - 25 June 2021
- V. **Airborne Wind Energy: Trajectory Tracking Controller Design of a Tethered Aircraft**  
Önen A. S., Tekinalp O.  
Wind Energy Science Conference, Hannover, Germany, 25 - 28 May 2021, vol.10, pp.119-120
- VI. **Maneuver Planning Strategy for Rapid Response Solar Sail Satellite Concept**  
Polat H. C., Tekinalp O.  
SciTech 2021, Science and Technology Forum and Exposition 2021, Virginia, United States Of America, 11 - 21 January 2021, vol.1, no.2, pp.1-17
- VII. **SEQUENTIAL ORBIT DETERMINATION VERIFICATION FOR GEOSTATIONARY SATELLITES**  
Köker A., TEKİNALP O., Yılmaz Ü. C., Şakacı C.  
AAS/AIAA Astrodynamics Specialist Conference, 2020, Virtual, Online, 9 - 12 August 2020, vol.175, pp.3227-3244
- VIII. **MISSION ANALYSIS OF A NEW SOLAR SAIL SATELLITE CONCEPT AT LOW EARTH ORBIT**  
POLAT H., TEKİNALP O.  
AAS/AIAA Astrodynamics Specialist Conference, 2020, Virtual, Online, 9 - 12 August 2020, vol.175, pp.2387-2406
- IX. **Maneuver planning strategy for rapid response solar sail satellite concept**  
POLAT H., TEKİNALP O.  
AIAA Science and Technology Forum and Exposition, AIAA SciTech Forum 2021, Virtual, Online, 11 - 15 January 2021, pp.1-17
- X. **Image Based Attitude Determination Algorithm for Small Satellites: Design and Preliminary Results**  
SÖKEN H. E., GÜZEL M. B., TEKİNALP O.  
International Astronautical Federation, 2020 International Astronautical Congress, Dubai, Sanal Yapıldı, United Arab Emirates, 12 - 14 October 2020
- XI. **STATION-KEEPING STRATEGY FOR A SOLAR SAIL SATELLITE AT LOW EARTH ELLIPTICAL ORBIT**  
POLAT H. C., TEKİNALP O.  
South East Europe Space Conference 2020, SEE UNIVERSE 2020, Belgrade, Serbia, 30 September 2020
- XII. **KÜÇÜK UYDULARDA YÖNELİM BELİRLEME FİLTRESİNİN KAMERA TABANLI ÖLÇÜMLER İLE DESTEKLENMESİ**  
Söken H. E., Güzel M. B., Tekinalp O.  
8. ULUSAL HAVACILIK VE UZAY KONFERANSI, Ankara, Turkey, 9 - 11 September 2020, pp.1-13
- XIII. **FIRDÖNDÜ UYDULAR İÇİN SÖZLE ÖLÇÜMLER KULLANARAK YÖNELİM BAĞIMSIZ GERÇEK ZAMANLI MANYETOMETRE KALİBRASYONU**  
Çetin M. E., Söken H. E., Tekinalp O.  
8. Ulusal Havacılık ve Uzay Konferansı, Ankara, Turkey, 9 - 11 September 2020, pp.1-8
- XIV. **Oscillating Control Moment Gyroscope Mathematical Model Development, Verification and Results**  
AKBULUT B., ARBERKLİ F., AZGIN K., TEKİNALP O.  
International Symposium on Space Technology and Science, Fukui, Japan, 15 - 21 June 2019
- XV. **Imaging-based attitude determination algorithm for small satellites: Design and the preliminary results**  
Güzel M. B., Söken H. E., Tekinalp O.  
71st International Astronautical Congress, IAC 2020, Virtual, Online, 12 - 14 October 2020, vol.2020-October
- XVI. **LATERAL-DIRECTIONAL CONTROL OF A HIGHLY MANEUVERABLE JET AIRCRAFT BASED ON COMBINATION OF MODAL AND OPTIMAL CONTROL THEORY**  
MESCE V., TEKİNALP O.  
10th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 18 - 20 September 2019

- XVII. **A MISSION ANALYSIS SOFTWARE FOR SMALL SATELLITES**  
KOPRÜCÜ S. U., ÖZÇELİK S. A., ALTUNAY Ş., YAĞLIOĞLU B., TEKİNALP O.  
10th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 18 - 20 September 2019
- XVIII. **SCATTER AND SENSITIVITY ANALYSIS OF A PROJECTILE MODELED UNDER MAGNUS EFFECT**  
MUHİDDİNOĞLU A., YAYLA K., TEKİNALP O.  
10th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 18 - 20 September 2019
- XIX. **INCORPORATING REAL LIFE DESIGN PROBLEMS INTO THE AEROSPACE CURRICULUM**  
TEKİNALP O.  
10TH ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 18 - 20 September 2019
- XX. **Long Term and Safe Relative Orbit Design for Heterogenously Distributed Spacecraft Clusters**  
YAĞLIOĞLU B., TEKİNALP O.  
International Workshop on Satellite Constellations and Formation Flying, Glasgow, United Kingdom, 16 - 19 July 2019
- XXI. **Slew Maneuver Control of Flexible Spacecraft**  
ALTINIŞIK S., TEKİNALP O.  
8TH EUROPEAN CONFERENCE FOR AERONAUTICS AND SPACE SCIENCES (EUCASS), Madrid, Spain, 1 - 04 July 2019
- XXII. **Passively Safe Relative Orbit Configurations over LongTime Intervals for Heterogeneously Distributed SpacecraftClusters**  
YAĞLIOĞLU B., TEKİNALP O.  
8TH EUROPEAN CONFERENCE FOR AERONAUTICS AND SPACE SCIENCES (EUCASS), Madrid, Spain, 1 - 04 July 2019
- XXIII. **Control of a Quadrotor Formation Carrying a Slung Load Using Flexible Bars**  
TEKİNALP O., ARIYIBI S.  
AIAA Aviation 2019 Forum, Dallas, Texas, United States Of America, 17 - 21 June 2019
- XXIV. **Oscillating Control Moment Gyroscope Experimental Results**  
AKBULUT B., ARBERKLİ F., AZGIN K., TEKİNALP O.  
AIAA Scitech 2019 Forum, San Diego, California, United States Of America, 7 - 11 January 2019
- XXV. **Safe Spacecraft Rendezvous Using Dual Quaternions on Time-Dependent Trajectories Generated by Model Predictive Control**  
TEKİNALP O., BÜYÜKKOÇAK A. T.  
AIAA Scitech 2019 Forum, San Diego, California, United States Of America, 7 - 11 January 2019
- XXVI. **Formation Flight Design near Sun-Earth Collinear Libration Points under the Effect of Disturbances**  
Kutlu A., TEKİNALP O.  
9th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 11 - 14 June 2019, pp.137-144
- XXVII. **A Multi-National Multi-Institutional Educaiton Framework: APSCO SSS-2B CubeSat Project**  
Yaglioglu B., Atas O., Kahraman D., Kose S., TEKİNALP O., Suer M.  
9th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 11 - 14 June 2019, pp.553-557
- XXVIII. **TRACKING CONTROL OF SPACECRAFT ATTITUDE AND POSITION ON TIME DEPENDENT TRAJECTORIES USING DUAL QUATERNIONS**  
BÜYÜKKOÇAK A. T., TEKİNALP O.  
AAS/AIAA Astrodynamics Specialist Conference, Utah, United States Of America, 19 - 23 August 2018, vol.167, pp.1411-1422
- XXIX. **Solar Sail Application with a Proposed Low Earth Orbit Mission Concept**  
Polat H. C., TEKİNALP O.  
9th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 11 - 14 June 2019, pp.285-291
- XXX. **SAFE SPACECRAFT RENDEZVOUS WITH CONSTRAINED MODEL PREDICTIVE CONTROL**  
BÜYÜKKOÇAK A. T., TEKİNALP O.

AAS/AIAA Astrodynamics Specialist Conference, Utah, United States Of America, 19 - 23 August 2018, vol.167, pp.883-895

- XXXI. **Safe Spacecraft Rendezvous with Constraint Model Predictive Control**  
TEKİNALP O., BÜYÜKKOÇAK A. T.  
AIAA/ American Astronautical Society Astrodynamics Specialst Conference, Snowbird, Utah, United States Of America, 19 - 23 August 2018
- XXXII. **Orbit Estimation Strategy for Low Earth Orbit and Geostationary Satellites**  
TEKİNALP O., KÖKER A.  
AIAA/American Astronautical Society, 2018 Astrodynamics Specialst Conference, Snowbird, Utah, United States Of America, 19 - 23 August 2018
- XXXIII. **A Hypothetical Mechanical Design for Vibrating Mass Control Moment Gyroscopes**  
BURAK A., ARBERKLİ F., TEKİNALP O., AZGIN K.  
2018 Space Flight Mechanics Meeting, Kissimmee, Florida, United States Of America, 8 - 12 January 2018
- XXXIV. **Modeling and Control of Quadrotor Formations Carrying a Slung Load**  
ARIYIBI S., TEKİNALP O.  
2018 AIAA Information Systems-AIAA Infotech @ Aerospace, Kissimmee, Florida, United States Of America, 8 - 12 January 2018
- XXXV. **EFFECTS OF ROTOR GEOMERY ON THE PERFORMANCE OF VIBRATING MASS CONTROL MOMENT GYROSCOPES**  
Arberkli F., Akbulut B., AZGIN K., TEKİNALP O.  
AAS/AIAA Astrodynamics Specialist Conference, Washington, United States Of America, 20 - 24 August 2017, vol.162, pp.247-258
- XXXVI. **A multi-national multi-institutional education framework: APSCO SSS-2B CubeSat Project**  
Yaglioglu B., Ataş A., Kahraman D., Kâşse S., Koru A., TEKİNALP O., Şer M., Phrompichai S.  
69th International Astronautical Congress: #InvolvingEveryone, IAC 2018, Bremen, Germany, 1 - 05 October 2018, vol.2018-October
- XXXVII. **Nonlinear optimal adaptive transition control of a tolt-prop VTOL UAV**  
Senipek M., YAYLA M., Gungor O., Cevher L., KUTAY A. T., TEKİNALP O.  
44th European Rotorcraft Forum 2018, ERF 2018, Delft, Netherlands, 18 - 21 September 2018, vol.2, pp.952-964
- XXXVIII. **Constrained Model Predictive Control for Spacecraft Rendezvous**  
BÜYÜKKOÇAK A. T., ALTINIŞIK S., TEKİNALP O.  
9th Ankara International Aerospace Conference, 20 - 22 September 2017
- XXXIX. **Angle Only Orbit Determination Using a Telescope System**  
KÖKER A., TEKİNALP O.  
9th Ankara International Aerospace Conference, 20 - 22 September 2017
- XL. **Experimental Characterization and Validation of Vibrating Rotor Control Moment Gyroscope**  
AKBULUT B., ARBERKLİ F., AZGIN K., TEKİNALP O.  
AIAA SPACE and Astronautics Forum and Exposition, Orlando, FL, United States Of America, 12 - 14 September 2017
- XLI. **Effects of Rotor Geometry on the Performance of Vibrating Mass Control Moment Gyroscopes**  
ARBERKLİ F., AKBULUT B., AZGIN K., TEKİNALP O.  
AAS/AIAA Astrodynamics Specialist Conference, Columbia River George, Stevenson, WA, United States Of America, 20 - 24 August 2017
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- XLIV. **A SIMPLIFIED MODEL FOR VIBRATING MASS CONTROL MOMENT GYROSCOPE**

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- XLV. **Main Rotor Downwash Effect on Separation Characteristics of External Stores**  
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- XLVI. **Main rotor downwash effect on separation characteristics of external stores**  
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- XLVII. **A Novel Flight Control Algorithm for Multicopters**  
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- XLVIII. **Tracking Control of Spacecraft Attitude on Time Dependent Trajectories**  
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- LXV. **Modeling and Controller Design of a VTOL UAV**  
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- LXXXIII. **Nonlinear Control to Maneuver Two Craft Coulomb Formation at Libration Points**  
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Ariyib S., TEKİNALP O.  
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- LXXXIX. **Spacecraft Attitude and Rate Estimation Using the SDRE Method**  
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- XCII. **Multiobjective Conceptual Design of an Unmanned Combat Air Vehicle**  
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- CVIII. **Trajectory optimization of advanced launch system**  
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- CIX. **Spacecraft energy storage and attitude control**  
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- CXIV. Artificial neural networks for transfer alignment and calibration of inertial navigation systems**  
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Zeyrek M. T., Tekinalp O., TUBITAK Project, Orta Doğu Teknik Üniversitesi Ar-Ge Strateji Belgesi (Havacılık Ve Uzay), 2016 - 2017

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## Tasks In Event Organizations

Tekinalp O., Kutay A. T., Perçin M., VTOL Aircraft Competition, Dikine Kalkan İnsansız Hava Araçları Yarışması, Social Activities, Ankara, Turkey, Ekim 2019

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## Metrics

Publication: 150

Citation (WoS): 181

Citation (Scopus): 564

H-Index (WoS): 9

H-Index (Scopus): 14

## Awards

Kayran A., Yavrucuk İ., Gürses E., Konukseven E. İ., Tekinalp O., Çoker D., Kurtuluş D. F., Aksel H., Schmidt Ş. E., Yaman Y., et al., ODTÜ-Tusaş Çok Hafif Uçak (Very Light Aircraft (VLA)) Tasarım ve Geliştirme, Yüksek Öğretim Kurumu, September 2019

## Non Academic Experience

TUSAS Aerospace Industries, TAI-TEKNOKENT  
METU, Aerospace Engineering Department  
METU, Aerospace Engineering Department  
TUSAS Aerospace Industries, TAI-Teknokent  
METU, Aerospace Engineering Department  
TUBITAK METU-BILTEN, Satellite Technologies Group  
Roketsan Missile Industries  
METU, Aeronautical Engineering Department  
CASA Division Projectos, IDS: AFCS, Gethaffe, Madrid  
University of Michigan, Mechanical Engr. and Appl. Mech. Dep  
University of Michigan, Comprehensive Studies Programme  
University of Michigan, Mech. Engr. and Appl. Mech. Dept.  
Industrial Technology Institute, Flexible Manufacturing Lab.  
University of Michigan, Mechanical Engr. Applied Mech. Dept.  
Emek Insaat, Ankara  
DUC Merkez Atolyesi, Ankara