

## Asst. Prof. SERDAR ARITAN

### Personal Information

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### International Researcher IDs

ScholarID: [xt1w3esAAAAJ](https://orcid.org/xt1w3esAAAAJ)

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### Biography

I received the B.Sc. degree in Industrial Engineering from Yildiz Technical University, Istanbul, Turkey, in 1989, the M.Sc degree in Sports Science and Technology from Hacettepe University, Ankara, Turkey, in 1994, and the Ph.D. degree in Biomechanics from the Manchester Metropolitan University, Manchester, UK, in 1998.

I am currently working as a member of the Faculty and Director of Biomechanics Laboratory at Hacettepe University. My biomechanics research interests include Sports Biomechanics, Mechanical Modelling of Soft Tissue, Human Motion Analysis and Simulation, Image Processing and Three-Dimensional reconstruction using imaging techniques. I have been developing software in C/C++/C# and MATLAB/Python more than 30 years.

### Education Information

Doctorate, The Manchester Metropolitan University, Biyomekanik, United Kingdom 1994 - 1998

Postgraduate, Hacettepe University, Sağlık Bilimleri Enstitüsü, Spor Bilimleri Ve Teknolojisi, Turkey 1993 - 1994

Undergraduate, Yildiz Technical University, Makina Fakültesi, Endüstri Mühendisliği, Turkey 1983 - 1988

### Foreign Languages

English, C2 Mastery

### Dissertations

Doctorate, Development and validation of a biomechanical model of the human upper arm, The Manchester Metropolitan University, 1998

Postgraduate, Fule uzunlukları ve ağırlık merkezi hızının belirlenmesinde kullanılan değişik ölçüm yöntemlerinin karşılaştırılması, Hacettepe Üniversitesi, Sağlık Bilimleri Enstitüsü, Spor Bilimleri Ve Teknolojisi (YI) (Tezli), 1994

## Research Areas

Computer Graphics, Computer Graphics, Biomedical Engineering, Biomechanics, Motion Analysis, Solid Mechanics

## Academic Titles / Tasks

Assistant Professor, Hacettepe University, Spor Bilimleri Fakültesi, Egzersiz ve Spor Bilimleri Bölümü, 2018 - Continues

Assistant Professor, Hacettepe University, Spor Bilimleri Fakültesi, Egzersiz ve Spor Bilimleri Bölümü, 2000 - 2018

Research Assistant, Hacettepe University, Spor Bilimleri Fakültesi, Egzersiz ve Spor Bilimleri Bölümü, 1991 - 1999

## Academic and Administrative Experience

Hacettepe Üniversitesi, Spor Bilimleri Fakültesi, Egzersiz ve Spor Bilimleri Bölümü, 2012 - Continues

Hacettepe Üniversitesi, Spor Bilimleri Fakültesi, 2012 - 2016

## Courses

PYTHON PROGRAMLAMA, Postgraduate, 2016 - 2017

UYGULAMALI HAREKET ANALİZİ, Postgraduate, 2016 - 2017

BİYOMEKANİK, Postgraduate, 2016 - 2017

HAREKET ANALİZİ SİSTEMLERİ, Postgraduate, 2016 - 2017

SPOR BİLİMLERİNDE BİLİMSEL PROGRAMLAMAYA GİRİŞ, Postgraduate, 2016 - 2017

## Advising Theses

ARITAN S., REAL-TIME PHYSICS-BASED MOTION CONTROL WITH AN EFFICIENT INVERSE DYNAMICS METHOD, Postgraduate, E.KAVAFOĞLU(Student), 2018

ARITAN S., Kaya tırmanışında tutamak yapılarına göre tutuş zorluk derecelerinin modellenmesi, Doctorate, A.MİTHAT(Student), 2014

ARITAN S., Barfikte ters ve düz devir hareketlerinin biyomekanik analizi, Postgraduate, N.ŞÜKRÜ(Student), 2014

ARITAN S., Yüzme sporunda 12-14 yaş grubunda farklı çıkış tekniklerinin biyomekanik analizi, Postgraduate, C.BAYKAL(Student), 2013

ARITAN S., Statik durumlarda kaya tırmanışına sonlu elemanlar yaklaşımı, Postgraduate, A.MİTHAT(Student), 2007

ARITAN S., İnsan hareketinin modellenmesi ve benzeşiminde temel bileşenler analizi yönteminin kullanılması, Doctorate, M.ÇİLLİ(Student), 2007

ARITAN S., Uzun atlamada yerden çıkış evresinin biyomekanik analizi ve modellenmesi, Doctorate, A.ALPTEKİN(Student), 2007

ARITAN S., Koparma tekniğinin biyomekanik analizi ve modellenmesi, Doctorate, E.HARBİLİ(Student), 2006

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

- Comparison of collision dynamics of soccer balls with energy dissipation method**  
Tunçel A., Özgören N. Ş., ARITAN S.  
Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2024 (SCI-Expanded)
- Comparison of the Effectiveness of Kinesiology Taping and Rigid Taping on Ankle Kinematics During Drop Landing in Individuals with Lateral Ankle Injury**  
Korkusuz S., KILIÇ R. T., ARITAN S., Ozgoren N. Ş., Sozay S., Kibar S., Yosmaoglu H. B.  
Journal of the American Podiatric Medical Association, vol.112, no.6, 2022 (SCI-Expanded)

- III. **Peak counting in surface electromyography signals for quantification of muscle fatigue during dynamic contractions**  
Ozgoren N. Ş., ARITAN S.  
MEDICAL ENGINEERING & PHYSICS, vol.107, 2022 (SCI-Expanded)
- IV. **X-Ray microtomography imaging of red lentil puffed snacks: Processing conditions, microstructure and texture**  
Guillermic R. -, Aksoy E. C., Aritan S., Erkinbaev C., Paliwal J., Koksel F.  
FOOD RESEARCH INTERNATIONAL, vol.140, 2021 (SCI-Expanded)
- V. **The effects of sodium reduction on the gas phase of bread doughs using synchrotron X-ray microtomography**  
Sun X., Scanlon M. G., Guillermic R., Belev G. S., Webb M. A., ARITAN S., Nickerson M. T., Koksel F.  
Food Research International, vol.130, 2020 (SCI-Expanded)
- VI. **The use of synchrotron X-rays and ultrasonics for investigating the bubble size distribution and its evolution in bread dough**  
KÖKSEL F., STRYBULEVYCH A., ARITAN S., PAGE J. H., SCANLON M. G.  
Journal of Cereal Science, vol.78, pp.10-18, 2017 (SCI-Expanded)
- VII. **The bubble size distribution and its evolution in non-yeasted wheat flour doughs investigated by synchrotron X-ray microtomography**  
Koksel F., ARITAN S., Strybulevych A., Page J. H., Scanlon M. G.  
FOOD RESEARCH INTERNATIONAL, vol.80, pp.12-18, 2016 (SCI-Expanded)
- VIII. **Kinematic and EMG activities during front and back squat variations in maximum loads**  
YAVUZ H. U., Erdag D., AMCA A. M., ARITAN S.  
JOURNAL OF SPORTS SCIENCES, vol.33, no.10, pp.1058-1066, 2015 (SCI-Expanded)
- IX. **Fusionless Instrumentation in Growing Spine and Adjacent Segment Problems An Experimental Study in Immature Pigs**  
Yilgor C., DEMİRKIRAN H. G., ARITAN S., KÖSEMEHMETOĞLU K., Daglioglu K., Isikhan S., YAZICI M.  
SPINE, vol.38, no.25, pp.2156-2164, 2013 (SCI-Expanded)
- X. **The effect of chalk on the finger-hold friction coefficient in rock climbing**  
AMCA A. M., Vigouroux L., ARITAN S., Berton E.  
SPORTS BIOMECHANICS, vol.11, no.4, pp.473-479, 2012 (SCI-Expanded)
- XI. **Effect of hold depth and grip technique on maximal finger forces in rock climbing**  
AMCA A. M., Vigouroux L., ARITAN S., Berton E.  
JOURNAL OF SPORTS SCIENCES, vol.30, no.7, pp.669-677, 2012 (SCI-Expanded)
- XII. **Efficiency of non-linear lens distortion models in biomechanical analysis of human movement**  
Aritan S.  
MEASUREMENT, vol.43, no.6, pp.739-746, 2010 (SCI-Expanded)
- XIII. **A mechanical model representation of the in vivo creep behaviour of muscular bulk tissue**  
ARITAN S., Oyadiji S. O., Bartlett R. M.  
JOURNAL OF BIOMECHANICS, vol.41, no.12, pp.2760-2765, 2008 (SCI-Expanded)
- XIV. **Effects of vibration on maximal isometric muscle contraction at different joint angles**  
Kin-Isler A., Acikada C., Aritan S.  
ISOKINETICS AND EXERCISE SCIENCE, vol.14, no.3, pp.213-220, 2006 (SCI-Expanded)
- XV. **Program for generation of three-dimensional finite element mesh from magnetic resonance imaging scans of human limbs**  
Aritan S., Dabnichki P., Bartlett R.  
MEDICAL ENGINEERING & PHYSICS, vol.19, no.8, pp.681-689, 1997 (SCI-Expanded)
- XVI. **Accuracy evaluation of an on-line kinematic system via dynamic tests**  
Dabnichki P., Lauder M., ARITAN S., Tsirakos D.  
JOURNAL OF MEDICAL ENGINEERING & TECHNOLOGY, vol.21, no.2, pp.53-66, 1997 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Effects of beta-blockers on archery performance, body sway and aiming behaviour**  
Ergen E., HAZIR T., Celebi M., KİN İŞLER A., ARITAN S., YAYLIOĞLU V. D., Guner R., Acikada C., Cinemre A.  
BMJ OPEN SPORT & EXERCISE MEDICINE, vol.7, no.2, 2021 (ESCI)
- II. **Futbolda Penaltı Vuruşunun Kinematığı: Kaleci ve Hedef Faktörünün Etkisi**  
Tuncel A., HARBİLİ E., ARITAN S.  
Hacettepe Spor Bilimleri Dergisi, vol.30, no.1, pp.25-38, 2019 (Peer-Reviewed Journal)
- III. **Investigation of joint reaction forces and moments during the countermovement and squat jump**  
ALPTEKİN A., ARITAN S., HARBİLİ E.  
Pamukkale Journal of Sport Sciences, vol.8, pp.58-71, 2017 (Peer-Reviewed Journal)
- IV. **Simulation of Giant Circles on High Bar**  
Özgören N. Ş., Arıtan S.  
Mühendislik Bilimleri ve Tasarım Dergisi, vol.2, no.3, pp.249-251, 2014 (Peer-Reviewed Journal)
- V. **Semitendinosus snapping analysis of movement electromyographic activities muscle strength and endurance motor control and joint position sense**  
GÜNEY H., KAYA D., YILGÖR İ. Ç., ÇİLLİ M., ARITAN S., YÜKSEL İ., DORAL M. N.  
Muscle Ligaments and Tendons Journal, vol.2, no.4, pp.302-304, 2013 (Scopus)
- VI. **Semitendinosus snapping: Analysis of movement, electromyographic activities, muscle strength and endurance, motor control and joint position sense**  
GUNEY H., KAYA D., Yilgor C., CILLI M., Arıtan S., Yuksel I., Doral M. N.  
Muscles, Ligaments and Tendons Journal, vol.3, no.3, pp.166-172, 2013 (Scopus)
- VII. **UZUN ATLAMADA ÇIKIŞ EVRESİNİN KİNEMATİĞİ: 2 ve 3 BOYUTLU ANALİZİN KARŞILAŞTIRILMASI**  
ALPTEKİN A., ARITAN S.  
Pamukkale Spor Bilimleri Dergisi, vol.4, pp.152-164, 2013 (Peer-Reviewed Journal)
- VIII. **Koparma Kaldırışının Biyomekanik Analizi İçin Mekanik Model Geliştirilmesi**  
AMCA A. M., HARBİLİ E., ARITAN S.  
Spor Bilimleri Dergisi: Hacettepe Üniversitesi, vol.21, pp.21-29, 2010 (Peer-Reviewed Journal)
- IX. **Koparma Kaldırışının Biyomekanik Analizi için Mekanik Model Geliştirilmesi**  
AMCA A. M., HARBİLİ E., ARITAN S.  
Spor Bilimleri Dergisi, vol.21, no.1, pp.21-29, 2010 (Peer-Reviewed Journal)
- X. **Temel Bileşenler Analizi Yardımı ile Elde Edilen Daha Az Sayıda Değişken Kullanılarak Farklı Hızlarda İnsan Koşusunun Fourier Tabanlı Modelinin Oluşturulması**  
ÇİLLİ M., ARITAN S.  
Spor Bilimleri Dergisi, vol.21, pp.1-12, 2010 (Peer-Reviewed Journal)
- XI. **HALTERDE ARTAN BAR AĞIRLIĞININ BARKİNEMATİĞİ VE GÜÇ ÇIKTISI ÜZERİNE ETKİLERİ**  
HARBİLİ E., ARITAN S.  
Spor Bilimleri Dergisi, vol.18, no.3, pp.126-136, 2007 (Peer-Reviewed Journal)
- XII. **KOPARMA TEKNİĞİNİN BİYOMEKANİĞİ**  
HARBİLİ E., ARITAN S.  
Spor Bilimleri Dergisi, vol.17, pp.124-142, 2006 (Peer-Reviewed Journal)
- XIII. **Kaya Tırmanışına Sonlu Elemanlar Yaklaşımı**  
AMCA A. M., ARITAN S.  
Spor Bilimleri Dergisi: Hacettepe Üniversitesi, vol.17, pp.173-183, 2006 (Peer-Reviewed Journal)
- XIV. **ELİT HALTERCİLERDE KOPARMA TEKNİĞİNİN KARŞILAŞTIRMALI BİYOMEKANİK ANALİZİ**  
HARBİLİ E., ARITAN S.  
Spor Bilimleri Dergisi, vol.16, pp.124-134, 2005 (Peer-Reviewed Journal)
- XV. **HAREKET ANALİZİ SİSTEMLERİNDE SAYISALLAŞTIRMADA ORTAYA ÇIKAN HATALARIN DAĞILIMI**  
ÇİLLİ M., ARITAN S.  
Spor Bilimleri Dergisi, vol.15, pp.91-99, 2004 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Hareket Analizi Sistemleri**  
ARITAN S.  
in: YÜRÜYÜŞ Hareket Analizi ve Yöntemleri Değerlendirme Normal ve Patolojik Yürüyüş, Fatih Erbahçeci Kezban Bayramlar, Editor, Hipokrat Kitapevi, Ankara, pp.75-85, 2018
- II. **Biomechanical Measurement Methods to Analyze the Mechanisms of Sport Injuries**  
ARITAN S.  
in: Sports Injuries Prevention Diagnosis Treatment and Rehabilitation, M.N. Doral, J. Karlsson, Editor, Springer-Verlag Berlin, pp.3085-3096, 2015
- III. **Kas Biyomekaniği**  
DEMİREL A. H., ARITAN S.  
in: Kas İskelet Sistemi Biyomekaniği, İbrahim Deniz AKÇALI, Mahir GÜLŞEN, Kerem ÜN, Editor, Ortopedia Hastanesi, Cukurova Üniversitesi, Adana, 2009
- IV. **Bulk Modulus**  
Arıtan S.  
in: Wiley Encyclopedia of Biomedical Engineering, Metin Akay, Editor, John Wiley & Sons, West Sussex, UK, New-Jersey, pp.668-675, 2006

## Refereed Congress / Symposium Publications in Proceedings

- I. **Biomechanics: The Machine Inside**  
ARITAN S.  
9 TH INTERNATIONAL BIOMECHANICS CONGRESS, 19 - 22 September 2018
- II. **Determining subject-specific feedback control parameters for knee joint during back squats with varying loads**  
Özgören N. Ş., Arıtan S.  
9th International Biomechanics Congress, Eskişehir, Turkey, 19 - 21 September 2018
- III. **Development of a real-time feedback control system for knee joint during back squat**  
Özgören N. Ş., Yaylioğlu V. D., Arıtan S.  
36th Conference of the International Society of Biomechanics in Sports, Auckland, New Zealand, 10 - 14 September 2018, vol.36, no.131, pp.586-589
- IV. **Estimating straight punch force in boxing: A simulation model of the punching bag**  
Özgören N. Ş., Arıtan S.  
15th International Sport Sciences Congress, Antalya, Turkey, 15 - 18 November 2017, pp.210-211
- V. **SPHERE FITTING INTO VOLUMETRIC REPRESENTATIONS OF BASKETBALL THROWS**  
YAYLIOĞLU V. D., ARITAN S.  
35th Conference of the International Society of Biomechanics in Sports, Cologne, Germany, 14 - 18 June 2017
- VI. **Effects of Patellar Tendon Strap on Electromyographic Activity of Quadriceps Muscles During Drop Landing**  
UTKU B., AMCA A. M., ARITAN S.  
35th International Conference on Biomechanics in Sport, 14 - 18 June 2017
- VII. **Comparison of three EMG-based muscle fatigue assessments in dynamic contractions**  
Özgören N. Ş., Arıtan S.  
35th Conference of the International Society of Biomechanics in Sports, Cologne, Germany, 14 - 18 June 2017, vol.35, no.174, pp.524-527
- VIII. **Biomechanics The Future of Motion**  
ARITAN S.  
14th International Sport Sciences Congress, 1 - 04 November 2016
- IX. **Volumetric Evaluation of Basketball Throws**

YAYLIOĞLU V. D., ARITAN S.

14th International Sport Sciences Congress, 1 - 04 November 2016

- X. **Futbolda Penaltı Vuruşunun Kinematiği Kaleci Faktörünün Etkisi**  
TUNÇEL A., HARBİLİ E., ARITAN S.  
14th International Sport Sciences Congress, 1 - 04 November 2016
- XI. **Patellartendon bandı serbest düşme esnasında dizin eklem pozisyon hissini ve elektromyografik yanıtını bozmuyor**  
Utku B., AMCA A. M., ARITAN S.  
8. Ulusal Biyomekanik Kongresi, Ankara, Turkey, 19 - 23 October 2016
- XII. **Patellartendon bandı serbet düşme esnasında dizin eklem pozisyon hissini ve elektromyografik yanıtı bozmuyor**  
UTKU B., AMCA A. M., ARITAN S.  
Uluslararası Katılımlı 8. Ulusal Biyomekanik Kongresi, Turkey, 19 - 23 October 2016
- XIII. **50 tekrarlı bir izokinetik yorgunluk testinde elektromiyografi**  
ÖZGÖREN N. Ş., ARITAN S.  
14. Uluslararası Spor Bilimleri Kongresi, Antalya, Turkey, 1 - 04 October 2016
- XIV. **PATELLAR TENDON STRAP DOES NOT AFFECT THEM AXIMAL JUMP HEIGHT**  
UTKU B., AMCA A. M., ARITAN S.  
34th World Congress of Sports Medicine, 29 September - 02 October 2016, vol.50, pp.21-22
- XV. **A Feedback Controller Design for a Biomechanical Model of the Press Handstand in Gymnastics**  
Özgören N. Ş., Arıtan S.  
The 34th International Conference on Biomechanics in Sports, Tsukuba, Japan, 18 - 22 July 2016, pp.909-912
- XVI. **EFFECT OF HOLD SLOPER ANGLE AND HOLD DEPTH ON MAXIMAL FINGER FORCE CAPACITY OF ROCK CLIMBERS**  
AMCA A. M., ARITAN S.  
33rd International Conference on Biomechanics in Sports, Poitiers, France, 29 June - 03 July 2015
- XVII. **Use Your Head! in Giant Circles on High Bar.**  
Özgören N. Ş., Arıtan S.  
Biomechanics of Human Motion Workshop, Güzelyurt, Cyprus (Kkct), 20 - 21 June 2015
- XVIII. **Barfikste Ters ve Düz Devir Hareketlerinin Biyomekanik Özellikleri**  
ÖZGÖREN N. Ş., ARITAN S.  
13. Uluslararası Spor Bilimleri Kongresi, Konya, Turkey, 7 - 09 November 2014
- XIX. **Biomechanical characteristics of forward and backward giant circles on high bar**  
Özgören N. Ş., Arıtan S.  
13th International Sport Sciences Congress, Konya, Turkey, 7 - 09 November 2014, pp.127-128
- XX. **EFFECT OF YO-YO TEST-INDUCED FATIGUE ON BIOMECHANICS OF INSTEP YO-YO TEST-INDUCED FATIGUE ON BIOMECHANICS OF INSTEPKICKING IN SOCCER**  
HARBİLİ E., TUNÇEL A., ARITAN S.  
13th International Sport Sciences Congress, Konya, Turkey, 7 - 09 November 2014
- XXI. **Simulation of giant circles on high bar**  
Özgören N. Ş., Arıtan S.  
VII. Ulusal Biyomekanik Kongresi, Isparta, Turkey, 16 - 18 October 2014, vol.2, pp.249-252
- XXII. **Relationship Between Climbing Specific Grip Techniques Hold Depth and Maximal Finger Force Capacity of Rock Climbers**  
AMCA A. M., ARITAN S., Vigouroux L.  
II. International Rock Climbing Research Congress, Pontresina, Switzerland, 15 - 19 September 2014
- XXIII. **Does a Growing Rod Cause Degeneration and Secondary Deformity in the Adjacent Segment**  
YILGÖR İ. Ç., ARITAN S., DEMİRKIRAN H. G., DAĞLIOĞLU Y. K., KÖSEMEHMETOĞLU K., YAZICI M.  
EPOS 31st Annual Meeting, 18 - 21 April 2012, vol.6, pp.1-26
- XXIV. **Kaya Tırmanıcılarında Tekrarlı Submaksimal Parmak Kuvveti Performansı ve Yorgunluk**  
AMCA A. M., Vigouroux L., ARITAN S.

12. Uluslararası Spor Bilimleri Kongresi, Denizli, Turkey, 12 - 14 December 2012

- XXV. **Biomechanical Modelling of Human Movement**  
ARITAN S.  
14th National Congress of Anatomy, Ankara, Turkey, 28 June - 01 July 2012
- XXVI. **Does growing rod cause degeneration and secondary deformity in the adjacent segment**  
YILGÖR İ. Ç., ARITAN S., DEMİRKIRAN H. G., DAĞLIOĞLU Y. K., KÖSEMEHMETOĞLU K., YAZICI M.  
SPINWEEK 2012, 28 May - 01 June 2012, vol.21, pp.316
- XXVII. **Elit Haltercilerde Koparma Kaldırışlarının Kinematik Analizi Arttırılan Yükün Etkileri**  
HARBİLİ E., AMCA A. M., ARITAN S.  
Uluslararası Spor Bilimleri Kongresi, Antalya, Turkey, 10 - 12 November 2010
- XXVIII. **Bale sanatçısında Semitendinosus tendonu kaynaklı dizde atlama snapping knee sendromu Hareket elektromiyografik aktivite izokinetik güç propriyosepsiyon koordinasyon ve fonksiyonel dayanıklılığın analizi Olgu sunumu**  
GÜNEY H., YILGÖR İ. Ç., KAYA D., ÇİLLİ M., ARITAN S., ATAY Ö. A., YÜKSEL İ., DORAL M. N.  
10. Türkiye Spor Yaralanmaları, Diz Cerrahisi ve Artroskopik Derneği kongresi, Turkey, 12 - 16 October 2010
- XXIX. **Biomechanical modelling in sports medicine**  
ARITAN S.  
6th European Sports Medicine Congress, 14 - 18 October 2009, vol.11, pp.1-178
- XXX. **2D Torque Driven Mechanical Modelling Of Snatch**  
AMCA A. M., ARITAN S.  
11th International Conference of Sport Kinetics, Halkidiki, Greece, 25 - 27 September 2009
- XXXI. **In vivo mechanical properties of muscular bulk tissue: Mechanical model representation of stress-relaxation behavior**  
ARITAN S., Oyadiji S. O., Bartlett R. M.  
2008 ASME International Mechanical Engineering Congress and Exposition, IMECE 2008, Boston, MA, United States Of America, 31 October - 06 November 2008, vol.2, pp.723-724
- XXXII. **The in vivo Mechanical Properties of Muscular Bulk Tissue**  
ARITAN S., Oyadiji S. O., Bartlett R. M.  
Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society, Minnesota, United States Of America, 3 - 06 September 2009, pp.5259-5260
- XXXIII. **HUBAG Üç Boyutlu Hareket Analizi Yazılımı**  
ARITAN S., ÇİLLİ M., AMCA A. M., ACAR Y. E.  
IV. ULUSAL BİYOMEKANİK KONGRESİ, Erzurum, Turkey, 16 - 18 October 2008
- XXXIV. **UZUN ATLAMADA YERDEN ÇIKIŞ EVRESİNİN BİYOMEKANİK ANALİZİ**  
ALPTEKİN A., ARITAN S.  
IV. ULUSAL BİYOMEKANİK KONGRESİ, Turkey, 16 - 17 October 2008
- XXXV. **Olimpik Koparma Kaldırışının Çekiş Evresinin Dinamik Modellenmesi ve Biyomekanik Analizi**  
AMCA A. M., ARITAN S.  
IV. Ulusal Biyomekanik Kongresi, Erzurum, Turkey, 16 - 17 October 2008
- XXXVI. **Development of Immediate Feedback Software for Optimising Glide Performance and Time of Initiating Post Glide Actions**  
NAEMİ R., ARITAN S., GOODWILL S., HAAKE S., SANDERS R.  
ISEA 2008 The Engineering of Sport, Held Biarritz, France, 1 - 04 July 2008, pp.291-300
- XXXVII. **Kaya Tırmanışına Sonlu Elemanlar Yaklaşımı ve Vücut Pozisyonu Eniyilemesi**  
AMCA A. M., ARITAN S.  
4. Doğa Sporları ve Bilim Sempozyumu, Ankara, Turkey, 17 - 18 November 2007
- XXXVIII. **EFFECT OF GRIP WIDTH ON ELECTROMYOGRAPHICAL ACTIVITY OF UPPER BODY MUSCLES AT DIFFERENT LOADS**  
KİN İŞLER A., AŞCI A., ARITAN S.  
12th Annual Congress European College of Sport Science, 11 - 14 July 2007
- XXXIX. **Uzun atlamada çıkış takeoff evresinin kinematığı 2 ve 3 boyutlu analizin karşılaştırılması**

- ALPTEKİN A., ACAR Y. E., ARITAN S.  
9. Uluslararası Spor Bilimleri Kongresi, Muğla, Turkey, 3 - 05 November 2006
- XL. **Spor Tırmanışta Sonlu Elemanlar Yaklaşımı**  
AMCA A. M., ARITAN S.  
9. Uluslararası Spor Bilimleri Kongresi, Muğla, Turkey, 3 - 05 November 2006
- XLI. **Finite Element Approach To Rock Climbing In Static Conditions**  
AMCA A. M., ARITAN S.  
XIVth Balkan Sports Medicine Congress, Albena, Bulgaria, 21 - 24 October 2006
- XLII. **PCA application for modeling and simulation of running patterns**  
ÇİLLİ M., ARITAN S.  
10th Annual Congress European College of Sport Science, Belgrade, Serbia And Montenegro, 13 - 16 July 2005
- XLIII. **The kinematic differences between successful and unsuccessful attempts in the snatch**  
HARBİLİ E., ARITAN S.  
10th Annual Congress European College of Sport Science, Belgrade, Serbia And Montenegro, 13 - 16 July 2005
- XLIV. **A mechanical model representation of the in vivo behaviour of bulk tissue**  
ARITAN S., OYADİJİ S. O., BARTLETT R. M.  
7th Biennial Conference on Engineering Systems Design and Analysis, ESDA 2004, Manchester, United Kingdom, 19 - 22 July 2004, pp.597-603
- XLV. **Non linear lens distortion correction procedure in biomechanical analysis of human movement**  
ARITAN S., YAŞAR F.  
9th Annual Congress European College of Sport Science, Clermont-Ferrand, France, 3 - 06 July 2004
- XLVI. **In vivo measurement of bulk muscle properties in humans**  
ARITAN S., Dabnichki P., SARGEANT A.  
The Physiological Society-Cambridge Meeting, Cambridge, United Kingdom, 15 - 17 December 1997, vol.506, pp.10
- XLVII. **Programme routine for generation of three dimensional finite element mesh from magnetic imaging scans**  
ARITAN S., Dabnichki P., BARTLETT R.  
10th Conference of the European Society of Biomechanics, Leuven, Belgium, 28 - 31 August 1996
- XLVIII. **Accuracy of the kinematic data collection filtering and differentiation**  
Dabnichki P., ARITAN S., Lauder M., Tsirakos D.  
International Conference on The Engineering of Sport, Sheffield, United Kingdom, 2 July - 04 August 1996
- XLIX. **Measuring the longitudinal force during javelin release**  
IWNICKI S., Dabnichki P., ARITAN S.  
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- L. **The accuracy of kinematic data collected from underwater three dimensional analysis**  
Lauder M., Dabnichki P., BARTLETT R., ARITAN S.  
International Conference on The Engineering of Sport, Sheffield, United Kingdom, 2 - 04 July 1996
- LI. **Elit Boksör Güreşçi ve Tekvandocuları Düşük ve Yüksek Sikletlerde Vücut Yağ Oranlarının Karşılaştırılması**  
ERGEN E., AÇIKADA C., TURNAGÖL H. H., HAZIR T., ARITAN S.  
4. Milli Spor Hekimliği Kongresi, İzmir, Turkey, 17 - 19 September 1993
- LII. **Milli Sporcuların Somatotip Özellikleri**  
TURNAGÖL H. H., DEMİREL A. H., ARITAN S.  
2. Spor Bilimleri Ulusal Kongresi, Ankara, Turkey, 20 - 22 November 1992

## Supported Projects

ARITAN S., Industrial Thesis Project, Futbolda Kaleci Formalarının (Alt-Üst) Fonksiyonelliklerinin Artırılması Amacıyla Yeniden Tasarlanması, 2016 - Continues

GÜRÇAY H., ARITAN S., Project Supported by Higher Education Institutions, Bilgisayar Animasyonu ve Oyun Teknolojileri



Laboratuvarı Altyapısının Güncellenmesi, 2016 - 2018

ARITAN S., ÖZGÖREN N. Ş., Project Supported by Higher Education Institutions, Boksta direkt vuruş kuvvetinin kestirilmesi Boks torbasının benzeşim modeli, 2017 - 2017

ARITAN S., YAYLIOĞLU V. D., Project Supported by Higher Education Institutions, Basketbol atışlarının hacimsel temsillerine küre yerleştirmek, 2017 - 2017

ARITAN S., ÖZGÖREN N. Ş., Project Supported by Higher Education Institutions, Dinamik kasılmalarda üç farklı EMG tabanlı kas yorgunluğu değerlendirme yönteminin karşılaştırılması, 2017 - 2017

ARITAN S., ÖZGÖREN N. Ş., YAYLIOĞLU V. D., TOK D., Project Supported by Higher Education Institutions, Biyomekanikte Hareket Analizi Çalışmayı, 2016 - 2017

ARITAN S., ÖZGÖREN N. Ş., Project Supported by Higher Education Institutions, 50 tekrarlı bir izokinetik yorgunluk testinde elektromiyografi, 2016 - 2016

ARITAN S., Project Supported by Higher Education Institutions, 34. Uluslararası Spor Biyomekaniği Kongresi, 2016 - 2016

ARITAN S., Project Supported by Higher Education Institutions, 33. Uluslararası Spor Biyomekaniği Kongresi, 2015 - 2016

ARITAN S., Project Supported by Higher Education Institutions, Kaya tırmanışı sporunda temel tutuş şekilleri ve tutamak yapılarının tutuş zorluk derecelerinin modellenmesi ve biyomekanik analizi, 2014 - 2015

## Scientific Refereeing

MEDICAL ENGINEERING & PHYSICS, SCI Journal, June 2021

MEDICAL ENGINEERING & PHYSICS, SCI Journal, November 2020

JOURNAL OF BIOMECHANICS, SCI Journal, July 2006

## Metrics

Publication: 91

Citation (WoS): 223

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H-Index (WoS): 9

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## Awards

Arıtan S., Alptekin A., Uzun atlamada yerden çıkış evresinin biyomekanik analizi , 4. Ulusal Biyomekanik Kongresi, September 2008

Arıtan S., Amca A. M., Çilli M., HUBAG: Üç boyutlu hareket analizi yazılımı, Hacettepe Üniversitesi Teknoloji Geliştirme Bölgesi Yönetici Şirketinin 2008 Yılı Proje Yarışması, April 2008

## Non Academic Experience

Edinburgh Üniversitesi

the Manchester Metropolitan Üniversitesi