

Assoc. Prof. AHMET BUĞRA KOKU

Personal Information

Office Phone: [+90 210 525 1](tel:+902105251)

Email: kbugra@metu.edu.tr

Web: <https://avesis.metu.edu.tr/kbugra>

Education Information

Doctorate, Vanderbilt University, Elektrik Elektronik Müh. Böl., United States Of America 1997 - 2003

Post Graduate, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Sistem Ve Kontrol Mühendisliği (YI) (Tezli), Turkey 1994 - 1997

Under Graduate, Boğaziçi Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 1989 - 1994

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Egocentric Navigation and its Applications, Vanderbilt University, Elektrik Elektronik Müh. Böl., 2003

Post Graduate, Fusion of soft computing techniques in control applications, Boğaziçi Üniversitesi, Sistem Ve Kontrol Mühendisliği (YI) (Tezli), 1997

Research Areas

Neural Networks, Mechanical Engineering, Machine Theory and Dynamics, Robotics, Mechatronics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2004 - 2018

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2003 - 2004

Research Assistant, Boğaziçi Üniversitesi, Mühendislik Fakültesi, 1995 - 1997

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2008 - 2011

Advising Theses

- KONUKSEVEN E. İ. , KOKU A. B. , Slippage estimation of a two wheeled mobile robot using deep neural network, Post Graduate, İ.ÖZÇİL(Student), 2018
- KONUKSEVEN E. İ. , KOKU A. B. , Realization of virtual fluid environment on a robotic gait trainer for therapeutic purposes, Post Graduate, T.EFE(Student), 2017
- KONUKSEVEN E. İ. , KOKU A. B. , Adaptive structured and unstructured road detection using LIDAR and dome-camera, Post Graduate, S.ÖZGÜN(Student), 2017
- KONUKSEVEN E. İ. , KOKU A. B. , A CONDITIONAL COVERAGE PATH PLANNING METHOD FOR AN AUTONOMOUS LAWN MOWER, Post Graduate, A.KAROL(Student), 2016
- KONUKSEVEN E. İ. , KOKU A. B. , GPU-accelerated adaptive unstructured road detection using close range stereo vision, Post Graduate, K.BUĞRA(Student), 2013
- KONUKSEVEN E. İ. , KOKU A. B. , Development of a mobile robot platform to be used in mobile robot research, Post Graduate, M.KASIM(Student), 2013
- KOKU A. B. , Fast feature extraction from 3D point cloud, Post Graduate, S.TARÇIN(Student), 2013
- KOKU A. B. , Decentralized coordination and control in robotic swarms, Doctorate, A.TÖRE(Student), 2012
- KOKU A. B. , Trajectory tracking control of unmanned ground vehicles in mixed terrain, Doctorate, G.BAYAR(Student), 2012
- DÖLEN M., KOKU A. B. , Design of an integrated hardware-in-the-loop simulation system, Post Graduate, S.ÜŞENMEZ(Student), 2010
- KONUKSEVEN E. İ. , KOKU A. B. , Unstructured road recognition and following for mobile robots via image processing using anns, Post Graduate, R.AŞKIN(Student), 2010
- KOKU A. B. , Design, development and manufacturing of an all terrain modular robot platform, Post Graduate, M.CİHANGİR(Student), 2010
- DÖLEN M., KOKU A. B. , Global urban localization of an outdoor mobiler robot using satellite images, Doctorate, C.ULAŞ(Student), 2009
- KOKU A. B. , Enhancing posterior pelvic tilt exercise by motivation inducing feedback to the patient, Post Graduate, E.TOMSUK(Student), 2008
- KOKU A. B. , Guidelines for building experimental mobile robots with off-the-shelf components, Post Graduate, A.GÜRCAN(Student), 2008
- KOKU A. B. , Human-like robot head design, Post Graduate, O.ÖLÇÜCÜOĞLU(Student), 2007
- DÖLEN M., KOKU A. B. , Modular embedded system design/implementation for mechatronics education and research, Post Graduate, A.ÖZGÜ(Student), 2007
- KOKU A. B. , Design of an image acquisition setup for mimic tracking, Post Graduate, Ö.MİNE(Student), 2007
- KOKU A. B. , SÖYLEMEZ E., Computer aided manufacturing (CAM) data generation for solid freeform fabricaton, Post Graduate, O.YARKINOĞLU(Student), 2007
- KOKU A. B. , Configurable robot base design for mixed terrain applications, Post Graduate, G.BAYAR(Student), 2005

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

- **Multiple human trajectory prediction and cooperative navigation modeling in crowded scenes**
Hacinecipoglu A., KONUKSEVEN E. İ. , KOKU A. B.
INTELLIGENT SERVICE ROBOTICS, 2020 (Journal Indexed in SCI)
- **Fast head detection in arbitrary poses using depth information**
HACINECİPOĞLU A., KONUKSEVEN E. İ. , KOKU A. B.
SENSOR REVIEW, vol.40, pp.175-182, 2020 (Journal Indexed in SCI)
- **Localization for mobile robots using skyline in panoramic images**
KOKU A. B.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.34, pp.1630-1644, 2019 (Journal Indexed in SCI)
- **Similarity matrix framework for data from union of subspaces**

Aldroubi A., Sekmen A., Koku A. B. , Cakmak A. F.

APPLIED AND COMPUTATIONAL HARMONIC ANALYSIS, vol.45, pp.425-435, 2018 (Journal Indexed in SCI)

● **Improving the trajectory tracking performance of autonomous orchard vehicles using wheel slip compensation**

BAYAR G., Bergerman M., KONUKSEVEN E. İ. , KOKU A. B.

BIOSYSTEMS ENGINEERING, vol.146, pp.149-164, 2016 (Journal Indexed in SCI)

● **Dynamic modeling and parameter estimation for traction, rolling, and lateral wheel forces to enhance mobile robot trajectory tracking**

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

ROBOTICA, vol.33, pp.2204-2220, 2015 (Journal Indexed in SCI)

● **Localization and control of an autonomous orchard vehicle**

BAYAR G., Bergerman M., KOKU A. B. , KONUKSEVEN E. İ.

COMPUTERS AND ELECTRONICS IN AGRICULTURE, vol.115, pp.118-128, 2015 (Journal Indexed in SCI)

● **Reliability of a Novel Visual Feedback System Developed for Increasing the Efficiency of Posterior Pelvic Tilt Exercise**

Mengi G., Gencay-Can A., Demirsoy N., Tomsuk E., Koku B., Beyazova M.

JOURNAL OF MUSCULOSKELETAL PAIN, vol.22, pp.237-241, 2014 (Journal Indexed in SCI)

● **Pressure prediction on a variable-speed pump controlled hydraulic system using structured recurrent neural networks**

KILIÇ E., DÖLEN M., ÇALIŞKAN H., KOKU A. B. , Balkan T.

CONTROL ENGINEERING PRACTICE, vol.26, pp.51-71, 2014 (Journal Indexed in SCI)

● **Accurate pressure prediction of a servo-valve controlled hydraulic system**

KILIÇ E., DÖLEN M., KOKU A. B. , ÇALIŞKAN H., Balkan T.

MECHATRONICS, vol.22, pp.997-1014, 2012 (Journal Indexed in SCI)

● **Position estimation for timing belt drives of precision machinery using structured neural networks**

KILIÇ E., DOĞRUER C. U. , DÖLEN M., KOKU A. B.

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.29, pp.343-361, 2012 (Journal Indexed in SCI)

● **An Internet-assisted experimental environment suitable for the reinforcement of undergraduate teaching of advanced control techniques**

Koku A. B. , KAYNAK O.

IEEE TRANSACTIONS ON EDUCATION, vol.44, pp.24-28, 2001 (Journal Indexed in SCI)

Articles Published in Other Journals

● **Pose invariant people detection in point clouds for mobile robots**

Hacinecipoglu A., Konukseven E. İ. , Koku A. B.

International Journal of Mechanical Engineering and Robotics Research, vol.9, pp.709-715, 2020 (Refereed

Journals of Other Institutions)

● **CUR Decompositions, Similarity Matrices, and Subspace Clustering**

Aldroubi A., Hamm K., KOKU A. B. , Sekmen A.

Frontiers in Applied Mathematics and Statistics, vol.4, 2019 (Refereed Journals of Other Institutions)

● **Design and implementation of a 3D range scanner for mobile robots**

ASLAN G., KONUKSEVEN E. İ. , Koku B.

Key Engineering Materials, vol.572, pp.644-647, 2014 (Refereed Journals of Other Institutions)

● **Yapay Sinir Ağ Modellerinin Valf Denetimli Hidrolik Bir Sistemin Uzun Süreli Basınç Tahmininde Kullanılması**

KILIÇ E., ÇALIŞKAN H., DÖLEN M., KOKU A. B. , BALKAN R. T.

Mühendis ve Makina, vol.53, pp.50-61, 2012 (Other Refereed National Journals)

● **Global urban localization of an outdoor mobile robot with genetic algorithms**

DOĞRUER C. U. , Koku A. B. , DÖLEN M.

- Springer Tracts in Advanced Robotics, vol.44, pp.103-112, 2008 (Refereed Journals of Other Institutions)
ATV Tabanlı İnsansız Kara Aracı Geliştirilmesi
BAYAR G., KONUKSEVEN E. İ. , KOKU A. B. , BALKAN R. T.
- Makina Tasarım ve İmalat Dergisi, vol.9, pp.55-66, 2007 (Other Refereed National Journals)
Novel position estimators for timing belt drivers
KILIÇ E., DÖLEN M., KOKU A. B. , DOĞRUER C. U.
Journal of Automation Mobile Robotics and Intelligent Systems, vol.1, pp.55-61, 2007 (Refereed Journals of Other Institutions)
- **A Test Setup for Evaluating Long-term Measurement Characteristics of Optical Mouse Sensors**
KANBUROGLU F. A. , DÖLEN M., KOKU A. B.
Journal of Automation Mobile Robotics and Intelligent Systems, vol.1, pp.71-75, 2007 (Refereed Journals of Other Institutions)
- **Nonlinear Position Estimators based on Artificial Neural Networks for Low Cost Manufacturing Systems**
KILIÇ E., DÖLEN M., KOKU A. B.
Journal of Automation, Mobile Robotics, and Intelligent Systems, vol.1, pp.40-44, 2007 (Refereed Journals of Other Institutions)
- **Dokunsal Kuvvet Geri Beslemeli Cihaz Tasarımı**
BAŞER Ö., KONUKSEVEN E. İ. , KOKU A. B.
Makina Tasarım ve İmalat Dergisi, vol.7, pp.68-78, 2005 (Other Refereed National Journals)
- **Toward egocentric navigation**
KAWAMURA k., KOKU A. B. , WILKES M., PETERS r. a. , SEKMEN a.
International Journal of Robotics and Automation, pp.135-145, 2002 (Refereed Journals of Other Institutions)

Books & Book Chapters

- **Global Urban Localization of Outdoor Mobile Robots using Genetic Algorithms**
DOĞRUER C. U. , KOKU A. B. , DÖLEN M.
in: Springer Tracts in Advanced Robotics, Bruno Siciliano, Oussama Khatib, Frans Groen, Editor, Springer, pp.103-112, 2008
- **Effects of Asynchronism and Neighborhood Size on Clustering in Self-propelled Particle System**
ŞAMİLOĞLU A. T. , GAZİ V., KOKU A. B.
in: Computer and Information Sciences – ISCIS 2006 : Lecture Notes in Computer Science, Albert Levi, Erkay Savas, Hüsnü Yenigün, Selim Balcısoy, Yücel Saygın, Editor, Springer, pp.665-676, 2006
- **Perception-Based Navigation for Mobile Robots**
KAWAMURA k., WILKES D. M. , KOKU A. B. , KESKİNPALA T.
in: Multi-Robot Systems: From Swarms to Intelligent Automata, Schultz, Alan C., Parker, Lynne, Editor, Springer Science, pp.225-234, 2002

Refereed Congress / Symposium Publications in Proceedings

- **Slippage Estimation of Two Wheeled Mobile Robot Using Recurrent Deep Neural Network**
Özçil O., Koku A. B. , Konukseven E. İ.
2019 International Conference on Artificial Intelligence, Robotics and Control, AIRC 2019, Cairo, Egypt, 14 - 16 December 2019, pp.7-13
- **Pose Invariant People Detection in Point Clouds for Mobile Robots**
Hacinecipoglu A., Konukseven E. İ. , Koku A. B.
2019 The 3rd International Conference on Advances in Artificial Intelligence (ICAAI 2019), İstanbul, Turkey, 26 - 28 October 2019, pp.1-7

● **Behavior-Based Approach for Cooperative Control of a Haptic-driven Mobile Robot**

Mohamadi Y., KONUKSEVEN E. İ. , KOKU A. B.

23rd International Conference on Mechatronics Technology (ICMT), Salerno, Italy, 23 - 26 October 2019

● **Slippage Estimation of a two wheeled Mobile Robot using Feedforward Deep Neural Network**

ÖZÇİL İ., KONUKSEVEN E. İ. , KOKU A. B.

ICCAMMEN 2018, 1st International Conference on Advances in Mechanical and Mechatronics Engineering, Ankara, Turkey, 8 - 09 November 2018

● **Enhanced Deep Learning with Improved Feature Subspace Separation**

PARLAKTUNA M., SEKMEN a., KOKU A. B. , ABDUL MALEK A.

International Conference on Artificial Intelligence and Data Processing (IDAP 2018), Malatya, Turkey, 28 - 30 September 2018

● **To Train or not to Train**

KOKU A. B. , ÇAKIR A., PARLAKTUNA M., SEKMEN A.

14th IEEE International Conference on Control and Automation, ICCA 2018, Alaska, United States Of America, 12 - 15 June 2018, pp.835-840

● **Lazer Mesafe Ölçümü ve Görsel Veri Kullanarak Adaptif Yol Bulma**

DEMİR S. Ö. , ERTOP T. E. , KONUKSEVEN E. İ. , KOKU A. B.

TORK 2018 Türkiye Robotbilim Konferansı, İstanbul, Turkey, 12 - 14 April 2018

● **Optik Fare Algılayıcılarının Mobil Robotlarda Kullanılarak Konum Tahminlerinin İyileştirilmesi**

ÖZÇİL İ., KOKU A. B. , KONUKSEVEN E. İ.

TORK 2018, Türkiye Robot Bilim Konferansı, İstanbul, Turkey, 12 - 14 April 2018

● **Lazer Mesafe Ölçümü ve Görsel Veri Kullanarak Adaptif Yol Bulma**

DEMİR S. Ö. , ERTOP t. e. , KONUKSEVEN E. İ. , KOKU A. B.

Türkiye Robotbilim Konferansı - TORK 2018, İstanbul, Turkey, 12 - 14 April 2018

● **Principal Coordinate Clustering**

SEKMEN a., ALDROUBİ A., HAMM K., KOKU A. B.

IEEE International Conference on Big Data 2017 (IEEE Big Data2017), Boston, United States Of America, 11 - 14 December 2017

● **Unsupervised Deep Learning for Subspace Clustering**

SEKMEN a., KOKU A. B. , PARLAKTUNA M., ABDULMALEK A., VANAMALA N.

IEEE International Conference on Big Data 2017 (IEEE Big Data2017), Boston, United States Of America, 11 - 14 December 2017

● **An Adaptive Approach for Road Boundary Detection Using 2D LIDAR Sensor**

Demir S. O. , Ertop T. E. , KOKU A. B. , KONUKSEVEN E. İ.

IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI), Daegu, South Korea, 16 - 18 November 2017, pp.206-211

● **Matrix resconstruction: Skeleton decomposition versus singular value decomposition**

SEKMEN a., ALDROUBİ A., KOKU A. B. , HAMM K.

International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS), Seattle, United States Of America, 9 - 12 July 2017, pp.535-542

● **Skeleton Decomposition Analysis for Subspace Clustering**

Sekmen A., Aldroubi A., Koku A. B.

4th IEEE International Conference on Big Data (Big Data), Washington, Kiribati, 5 - 08 December 2016, pp.1841-1848

● **A Conditional Coverage Path Planning Method for an Autonomous Lawn Mower**

KAROL A., KONUKSEVEN E. İ. , KOKU A. B. , ÇİÇEK S.

17. Uluslararası Makina Tasarım ve İmalat Kongresi, Bursa, Turkey, 12 - 15 July 2016

● **Üç Boyutlu Haritalama ve Konumlama Uygulamaları için Donanım ve Yazılım Platformu Geliştirilmesi**

HACINECİPOĞLU A., KOKU A. B. , KONUKSEVEN E. İ.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK14), Kocaeli, Turkey, 11 - 13 September 2014, pp.573-577

● **2 Boyutlu ve 3 Boyutlu Görsel Geri Beslemenin ve Ekran Büyüklüğünün Uzaktan Araç Kontrolü**

Üzeindeki Etkisi

ÖLMEZ H., KONUKSEVEN E. İ. , KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK14), Kocaeli, Turkey, 11 - 13 September 2014, pp.523-527

A New Hardware-in-the-Loop Simulator for Control Engineering Education

USENMEZ S., YAMAN U., DOLEN M., KOKU A. B.

IEEE Global Engineering Education Conference, İstanbul, Turkey, 3 - 05 April 2014, pp.1-8

Hareketli Robot Dinamik Modelinin Tekerlek Kuvvetleri Kullanılarak İyileştirilmesi

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK13), Malatya, Turkey, 26 - 28 September 2013

Hareket Denetimi Uygulamalarında Kullanılan Sayısal Filtrelerin FPGA ile Gerçekleştirilmesi

YAMAN U., MUTLU B. R. , DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK13), Malatya, Turkey, 26 - 28 September 2013, pp.388-393

A Comparative Study on Distance Metrics in Self- Supervised Unstructured Road Detection Domain

ÖZÜTEMİZ K. B. , HACINECİPOĞLU A., KOKU A. B. , KONUKSEVEN E. İ.

Mechatronics and Machine Vision in Practice, M2VIP, 2013, Ankara, Turkey, 20 September 2013

Histogram-Based Thresholding Method for Extracting Non- Urban Roads from Satellite Images

GHAZİANİ M., MOHAMADİ Y., KONUKSEVEN E. İ. , KOKU A. B.

Mechatronics and Machine Vision in Practice, M2VIP, 2013, Ankara, Turkey, 20 September 2013

Adaptive unstructured road detection using close range stereo vision

ÖZÜTEMİZ K. B. , Hacinecipoglu A., KOKU A. B. , KONUKSEVEN E. İ.

2013 9th Asian Control Conference, ASCC 2013, İstanbul, Turkey, 23 - 26 June 2013

Self-learning Road Detection with Stereo Vision

Ozutemiz K. B. , Hacinecipoglu A., KOKU A. B. , KONUKSEVEN E. İ.

21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013

Stereo Görüntü ile Kendi Kendine Öğrenen Yol Saptama

ÖZÜTEMİZ K. B. , HACINECİPOĞLU A., KOKU A. B. , KONUKSEVEN E. İ.

Signal Processing and Communications Applications Conference (SIU13), Girne, Cyprus (Kkct), 23 - 25 April 2013

Extraction of unstructured roads from satellite images using binary image segmentation

GHAZİANİ M., MOHAMADİ Y., KOKU A. B. , KONUKSEVEN E. İ.

Signal Processing and Communications Applications Conference (SIU13), Girne, Cyprus (Kkct), 23 - 25 April 2013

Evaluation of Haptic Feedback Cues on Vehicle Teleoperation Performance in an Obstacle Avoidance Scenario

HACINECİPOĞLU A., KONUKSEVEN E. İ. , KOKU A. B.

IEEE World Haptics Conference (WHC), Daejeon, South Korea, 14 - 18 April 2013, pp.689-694

A New Hardware-in-the-Loop Simulator for CNC Machine Applications

USENMEZ S., MUTLU B. R. , Yaman U., KILIÇ E., Dolen M., Koku A. B.

IEEE International Conference on Mechatronics (ICM), Vicenza, Italy, 27 February - 01 March 2013

Mobil Robotlar için Tarama Platformunun Tasarımı ve Uygulaması

ASLAN G., KONUKSEVEN E. İ. , KOKU A. B.

TİMAK 2012 - Tasarım İmalat ve Analiz Kongresi, Balıkesir, Turkey, 29 - 30 November 2012

Comparison of Kinect and Bumblebee2 in Indoor Environments

TARÇIN S., ÖZÜTEMİZ K. B. , KOKU A. B. , KONUKSEVEN E. İ.

12th International Workshop on Research and Education in Mechatronics (REM), Kocaeli, Turkey, 15 - 16 September 2011

Experimental evaluation of cable drum systems as linear motion sensors

KILIÇ E., DÖLEN M., KOKU A. B.

IEEE International Conference on Mechatronics (ICM 2011), 13 - 15 April 2011, pp.666-671

Long-term prediction of hydraulic system dynamics via structured recurrent neural networks

KILIÇ E., DÖLEN M., KOKU A. B.

2011 IEEE International Conference on Mechatronics, ICM 2011, İstanbul, Turkey, 13 - 15 April 2011, pp.330-335

Rapid training data generation from image sequences for pattern recognition

DİLAN R. A. , KOKU A. B. , KONUKSEVEN E. İ.

2011 IEEE International Conference on Mechatronics, ICM 2011, İstanbul, Turkey, 13 - 15 April 2011, pp.457-462

● **Decoding Process and Characterization Studies of a 2D Laser Scanning Range Finder**

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

AzC IFToMM 2010 International Symposium of Mechanism and Machine Science, İzmir, Turkey, 5 - 08 October 2010, pp.295-299

● **Geri Besleme Doğrusallaştırması Yöntemiyle Hareketli Robotlarda Düz Çizgi Takibi**

ŞAMİLOĞLU A. T. , GAZİ V. , KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK10), Kocaeli, Turkey, 21 - 23 September 2010

● **Theoretical and experimental determination of dynamic friction coefficient for a cable-drum system**

BAYAR G., KONUKSEVEN E. İ. , KOKU A. B.

3rd European Conference on Mechanism Science, EUCOMES 2010, Cluj-Napoca, Romania, 14 - 18 September 2010, vol.5, pp.345-352

● **Sliding Mode Control of a Power Screw Driven Positioning Table**

BAYAR G., KONUKSEVEN E. İ. , KOKU A. B.

3rd International Conference on Advanced Design and Manufacture, Nottingham, United Kingdom, 8 - 10 September 2010, vol.450, pp.325-328

● **Design of Circling Around a Target Controllers for Mobile Robots by Feedback Linearization**

ŞAMİLOĞLU A. T. , GAZİ V. , KOKU A. B.

IFAC Workshop on Adaptation and Learning in Control and Signal Processing, 26 - 28 August 2010, vol.43, pp.138-143

● **A novel command generation method with variable feedrate utilizing FPGA for motor drives**

Yarnan U., DÖLEN M., KOKU A. B.

2010 8th IEEE Workshop on Intelligent Solutions in Embedded Systems, WISES 2010, Heraklion, Greece, 8 - 09 July 2010, pp.67-72

● **Development of a Steered Unmanned Ground Electric Vehicle Research Platform**

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

International Unmanned Vehicles Workshop, İstanbul, Turkey, 10 June 2010, pp.117-124

● **Hareketli Bir Platform İçin Yüzey Değişimlerinin Kayma Geçişleri Kullanılarak Bulunması**

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

5. Otomotiv Teknolojileri Kongresi OTEKON 2010, Bursa, Turkey, 7 - 08 June 2010

● **Direct Command Generation Methods for Servo-Motor Drives**

YAMAN U., MUTLU B. R. , DÖLEN M., KOKU A. B.

12th International Conference on Electrical Machines and Systems, Tokyo, Japan, 15 - 18 November 2009, pp.1354-1359

● **Performance Evaluation of Different Real-Time Motion Controller Topologies Implemented on a FPGA**

MUTLU B. R. , YAMAN U., DÖLEN M., KOKU A. B.

12th International Conference on Electrical Machines and Systems, Tokyo, Japan, 15 - 18 November 2009, pp.902-907

● **Real-time hardware-in-the-loop simulation of electrical machine systems using FPGAs**

ÜŞENMEZ S., Dilan R., DÖLEN M., KOKU A. B.

12th International Conference on Electrical Machines and Systems, ICEMS 2009, Tokyo, Japan, 15 - 18 November 2009

● **Endüstriyel Kontrol Uygulamaları için Komut Üretim Yöntemleri**

YAMAN U., DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK09), Turkey, 13 - 16 October 2009

● **Bir Doğru Akım Motorunun FPGA Üzerinde Gerçek Zamanlı Benzetiminin Gerçekleştirilmesi**

ÜŞENMEZ s., DİLAN R. A. , DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK09), İstanbul, Turkey, 13 - 16 October 2009

● **Bilgisayar Denetimli Takım Tezgahları için Dağıtık bir Hareket Denetim Sistemi**

KANBUROGLU F. A. , KILIÇ E., DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK09), İstanbul, Turkey, 13 - 16 October 2009

Kayan Kipli DC Motor Konum Denetiminin FPGA ile Gerçekleştirilmesi

MUTLU B. R. , YAMAN U., DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK09), İstanbul, Turkey, 13 - 16 October 2009

Gezer Bir Robot için Hedef Takibi ve Dairesel Yörüngede Seyir

ŞAMİLOĞLU A. T. , GAZİ V., KOKU A. B. , LEBLEBİCİOĞLU M. K.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK09), İstanbul, Turkey, 13 - 16 October 2009

Endüstriyel Kontrol Uygulamaları İçin Komut Üretim Yöntemleri

YAMAN U., DÖLEN M., KOKU A. B.

Otomatik Kontrol Ulusal Toplantısı, TOK2009, İstanbul, Turkey, 13 - 16 October 2009

CoMoRAT: A Configurable All Terrain Mobile Robot

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

11th WSEAS International Conference on AUTOMATIC CONTROL, MODELLING and SIMULATION (ACMOS 'xx09), İstanbul, Turkey, 30 May - 01 June 2009, vol.507

Dişli Kayış Mekanizmalarında İletim Hatalarının İncelenmesi

KILIÇ E., DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK08), İstanbul, Turkey, 13 - 15 November 2008

Çoklu Robot Uygulamaları İçin Bir Deney Düzeneği

ŞAMİLOĞLU A. T. , ÇAYIRPUNAR Ö., GAZİ V., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK08), İstanbul, Turkey, 13 - 15 November 2008

Çevrimiçi Donanım Benzetimi için Yeni bir Yazılım Paketi: Cadmus

ÜŞENMEZ s., DİLAN R. A. , YAMAN U., MUTLU B. R. , DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK08), İstanbul, Turkey, 13 - 15 November 2008

Sayısal Kontrol Mühendisliği Eğitiminde Yeni Araçlar ve Yaklaşımlar

MUTLU B. R. , YAMAN U., ÜŞENMEZ s., DİLAN R. A. , DÖLEN M., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK08), İstanbul, Turkey, 13 - 15 November 2008

Çevrimiçi Donanım Benzetimi İçin Yeni bir Yazılım Paketi Cadmus

ÜŞENMEZ S., DİLAN R. A. , YAMAN U., MUTLU B. R. , DÖLEN M., KOKU A. B.

Otomatik Kontrol Ulusal Toplantısı, TOK2008, İstanbul, Turkey, 13 - 15 November 2008, vol.1, pp.685-691

An Experimentail Set-up for Multi-Robot Applications

ŞAMİLOĞLU A. T. , ÇAYIRPUNAR Ö., GAZİ V., KOKU A. B.

Int. Conf. on Simulation, Modeling and Programming for Autonomous Robots (SIMPAN) 2008, 3 - 04 November 2008, pp.539-550

Mobile Robot Heading Adjustment Using Radial Basis Function Neural Networks Controller and Reinforcement Learning

BAYAR G., KONUKSEVEN E. İ. , KOKU A. B.

4TH WSEAS/IASME INTERNATIONAL CONFERENCE ON DYNAMICAL SYSTEMS AND CONTROLS, 26 - 28 October 2008, pp.169-174

Global Urban Localization of Outdoor Mobile Robots Using Satellite Images

DOĞRUER C. U. , Koku B., DÖLEN M.

IEEE/RSJ International Conference on Intelligent Robots and Systems, Nice, France, 22 - 26 September 2008, pp.3927-3928

Design and Implementation of a Modular and Open-For-Development Rapid Prototyping System

YARKINOĞLU O., YAZICIOĞLU F., Söylemez E., KOKU A. B.

Proc. of the 13th International Conference on Machine Design and Production (UMTIK 2008), İstanbul, Turkey, 3 - 05 September 2008

Graduate Student Education in Discrete-time Control

YAMAN U., ÜŞENMEZ s., MUTLU B. R. , DÖLEN M., KOKU A. B.

Proc. of the 13th International Conference on Machine Design and Production (UMTIK 2008), İstanbul, Turkey, 3 - 05 September 2008

● **i-RoK: A Human Like Robotic Head**

ÖLÇÜCÜOĞLU O., KOKU A. B. , KONUKSEVEN E. İ.

7th IEEE/RAS International Conference on Humanoid Robots, Pennsylvania, United States Of America, 29 September - 01 December 2007, pp.442-446

● **A novel soft-computing technique to segment satellite images for mobile robot localization and navigation**

DOĞRUER C. U. , Koku B., DÖLEN M.

2007 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2007, San Diego, CA, United States Of America, 29 October - 02 November 2007, pp.2077-2082

● **Kendinden İtmeli Parçacık Sistemlerinde Üç Farklı Ortak Yön Bulma Stratejisi: Bölüm 1-Eş Zamanlı Model**

ŞAMİLOĞLU A. T. , GAZİ V., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK07), İstanbul, Turkey, 5 - 07 September 2007

● **Sürü Robotbilimi ve Çok-Erkinli Sistemlerdeki Koordinasyon Problemleri**

ŞAMİLOĞLU A. T. , GAZİ V., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK06), Ankara, Turkey, 6 - 08 November 2006

● **Oğul Robot Sistemleri için Basit Bir Görüntüleme Sistemi Tasarımı**

ÇELİKKANAT H., TURGUT A. E. , ŞAHİN E., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK06), Ankara, Turkey, 6 - 08 November 2006

● **Oğul-Robot Sistemleri için Sinyalleşme Sistemi Tasarımı**

TURGUT A. E. , ÇAKMAK M., ŞAHİN E., KOKU A. B.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK06), Ankara, Turkey, 6 - 08 November 2006

● **Gezgin Robotların Görüntü Tabanlı Pozisyon Kestirimi**

KOKU A. B. , TORA H.

Türk Otomatik Kontrol Ulusal Toplantısı (TOK06), Ankara, Turkey, 6 - 08 November 2006

● **Effects of asynchronism and neighborhood size on clustering in self-propelled particle systems**

Şamiloğlu A. T. , Gazi V., KOKU A. B.

ISCIS 2006: 21th International Symposium on Computer and Information Sciences, İstanbul, Turkey, 1 - 03 November 2006, pp.665-676

● **Asynchronous cyclic pursuit**

Şamiloğlu A. T. , Gazi V., Koku B.

9th International Conference on Simulation of Adaptive Behavior, SAB 2006, Rome, Italy, 25 - 29 September 2006, pp.667-678

● **Askeri Amaçlı Hareketli Robot Platformu Tasarımı**

BAYAR G., KONUKSEVEN E. İ. , KOKU A. B.

3. Savunma Teknolojileri Kongresi SAVTEK 06, Ankara, Turkey, 29 - 30 June 2006

● **A Vision Based Optical Dead-Reckoning System**

TORA H., KOKU A. B. , SEKMEN a.

MECHATRONICS 2006: The 10th Mechatronics Forum Biennial International Conference, Malvern, PA, United States Of America, 19 - 21 June 2006

● **Experiences From Two Consecutive Senior Level Mechatronic Courses: Enhancing Creativity Through Design**

AKÖNER M., KOKU A. B. , AZGIN K.

MECHATRONICS 2006: The 10th Mechatronics Forum Biennial International Conference, Malvern, PA, United States Of America, 19 - 21 June 2006

● **Antropomorfik Bir Robot Boyun/Baş Tasarımı**

ÖLÇÜCÜOĞLU O., KOKU A. B. , KONUKSEVEN E. İ.

TİMAK 2006 - Tasarım İmalat ve Analiz Kongresi ve CAD-CAM Günleri 'xx06, Balıkesir, Turkey, 26 - 28 April 2006

● **ARAŞTIRMA AMAÇLI MODULER BİR HAREKETLİ ROBOT PLATFORMU TASARIMI**

BAYAR G., KOKU A. B. , KONUKSEVEN E. İ.

TİMAK 2006 - Tasarım İmalat ve Analiz Kongresi ve CAD-CAM Günleri 'xx06, Balıkesir, Turkey, 26 - 28 April 2006

● **Evaluation of egocentric navigation methods**

ALTUN K., KOKU A. B.

14th IEEE Workshop on Robot and Human Interactive Communication, RO-MAN 2005, Nashville, TN, United States Of America, 13 - 15 August 2005, vol.2005, pp.396-401

● **A Software Package to Facilitate Teaching Introductory Level Mechatronics**

BAYAR G., ÖLÇÜCÜOĞLU O., KOKU A. B. , SEKMEN a.

ASEE Annual Conference, Portland, OR, United States Of America, 12 - 15 June 2005

● **Human robot interaction via cellular phones**

SEKMEN a., KOKU A. B. , ZEİNSABATTO S.

SMC'xx03 Conference Proceedings. 2003 IEEE International Conference on Systems, Man and Cybernetics.

Conference Theme - System Security and Assurance (Cat. No.03CH37483), Washington, United States Of America, 5 - 08 October 2003, pp.3937-3942

● **Knowledge-sharing techniques for Egocentric Navigation**

KESKİNPALA T., KOKU A. B. , WILKES D. M. , KAWAMURA k.

SMC'xx03 Conference Proceedings. 2003 IEEE International Conference on Systems, Man and Cybernetics.

Conference Theme - System Security and Assurance (Cat. No.03CH37483), Washington, DC, USA, 5 - 08 October 2003, pp.2469-2476

● **A novel approach for robot homing**

KOKU A. B. , SEKMEN a., WILKES D. M.

Proceedings of 2003 IEEE Conference on Control Applications, 2003. CCA 2003., Istanbul, Turkey, 25 - 27 June 2003

● **Color-based object tracking to improve mobile robot navigation**

Keskinpala T., Koku A. B. , Keskinpala H.

6th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2002)/8th International Conference on Information Systems Analysis and Synthesis (ISAS 2002), Florida, United States Of America, 14 - 18 July 2002, pp.40-45

● **Development of a desktop robot for robotics education**

Sekmen A., Koku A. B.

6th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2002)/8th International Conference on Information Systems Analysis and Synthesis (ISAS 2002), Florida, United States Of America, 14 - 18 July 2002, pp.300-305

● **Enhancing a human-robot interface using sensory egosphere**

JOHNSON C., Koku A. B. , KAWAMURA K., Peters R.

19th IEEE International Conference on Robotics and Automation (ICRA), Washington, Kiribati, 11 - 15 May 2002, pp.4132-4137

● **Perception-based navigation for mobile robots**

Kawamura K., Wilkes D., Koku A. B. , Keskinpala T.

Workshop on Multi-Robot Systems, Washington, Kiribati, 01 March 2002, pp.225-234

● **Toward perception-based navigation using EgoSphere**

Kawamura K., Peters II R., Wilkes D., Koku A. B. , Sekmen A.

Mobile Robots XVI, Newton, MA, United States Of America, 29 - 30 October 2001, vol.4573, pp.137-147

● **Important factors in mobile robot user interface design**

Sekmen A., Goldman S., Koku A. B. , Zein-Sabatto S., Wilkes M.

5th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI2001)/7th International Conference on Information Systems Analysis and Synthesis (ISAS 2001), Florida, United States Of America, 22 - 25 July 2001, pp.305-310

● **Towards socially acceptable robots**

Koku A. B. , SEKMEN A., ALFORD A.

IEEE International Conference on Systems, Man and Cybernetics, Tennessee, United States Of America, 8 - 11 October 2000, pp.894-899

● **Comparison of soft-computing and conventional methodologies in control of servo systems**

EFE M. Ö. , Koku A. B. , KAYNAK O.

24th Annual Conference of the IEEE Industrial-Electronics-Society, Aachen, Germany, 31 August - 04 September 1998, pp.75-80

Episodes in the Encyclopedia

- **Türkiye Bilişim Ansiklopedisi**
KOKU A. B. , KAYNAK O.
Papatya Bilim, pp., 2006

Supported Projects

- Şahin E., Koku A. B. , Turgut A. E. , Saranlı U., Kalkan S., Keysan O., Cinbiş R. G. , Akbaş E., Ankaralı M. M. , Saranlı A., et al., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, ROBOTİK TEKNOLOJİLERİ ARAŞTIRMA, GELİŞTİRME ve EĞİTİM MERKEZİ (ROMER), 2019 - 2022
- DÖLEN M., Engiz İ. M. , HORASAN A., KOKU A. B. , Project Supported by Higher Education Institutions, Görüntü işleme ve duyucu verileri ile kapalı alanlarda konumlama sistemi geliştirilmesi, 2016 - 2016
- Koku A. B. , TUBİTAK Project, TÜBİTAK - 111M580 : Uzaktan Kullanıcı Etkileşimli Yarı-Otonom İnsansız Kara Aracı Platformu, 2012 - 2014
- Koku A. B. , CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, DPT: Engebeli Arazilerde Kullanılacak Askeri Amaçlı Robot Taban Tasarımı, 2006 - 2008

Patent

- KOKU A. B. , Görsel dikkat ölçme sistemi, Patent, CHAPTER A Human Needs, Initial Registration, 2016
- KOKU A. B. , SÜMER H. C. , İki kol koordinasyon sistemi, Patent, CHAPTER A Human Needs, Initial Registration, 2015
- KOKU A. B. , Çift yönlü çalışan süspansiyon, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, Initial Registration, 2013
- KOKU A. B. , Hız ve mesafe tahmini test cihazı, Patent, CHAPTER A Human Needs, Initial Registration, 2012
- KOKU A. B. , Tepki hızı tespit cihazı, Patent, CHAPTER A Human Needs, Initial Registration, 2012
- KOKU A. B. , Kordinasyon ve hakimiyet test cihazı, Patent, CHAPTER A Human Needs, Initial Registration, 2012

Citations

Total Citations (WOS):200

h-index (WOS):8