

Publications

Journal Papers

1. **Sezer V.**, Gokasan M., “A Novel Obstacle Avoidance Algorithm: ‘Follow the Gap Method’ ” Elsevier-Robotics and Autonomous Systems, Volume 60, Issue 9, pp 1123-1134, 2012
2. **Sezer V.**, Gokasan M., Bogosyan S., “A Novel ECMS And Combined Cost Map Approach For High Efficiency Series Hybrid Electric Vehicles”, IEEE Transactions on Vehicular Technology , Vol: 60, No:8, pp. 3557 – 3570, 2011.
3. **Sezer V.**, Gokasan M., “Low Level Speed Controller Application for Unmanned Ground Vehicles”, İTÜ Journal/Engineering, 2012 (*submitted*)
4. Uygan I.M.C., Hartavi A.E., **Sezer V.**, Acarman T., Güvenc L., “Propulsion System Design of a Hybrid Electric Vehicle”, International Journal of Vehicle Design, Vol. 52, No.s 1/2/3/4, pp. 96-118, 2010
5. Danis S. , Aytakin B., Dinçmen E., **Sezer V.**, Ararat Ö., Öncü S., Güvenc A.B., Acarman T., Altuğ E., Güvenc L.; “Framework for Development of Driver Adaptive Warning and Assistance Systems That Will Be Triggered By a Driver Inattention Monitor” , International Journal of Vehicle Design, Vol. 52, No.s 1/2/3/4, pp. 20-37, 2010.

Book Chapters

6. **Volkan Sezer** , Pınar Boyraz , Ziya Ercan ,Çagri Dikilitaş , Hasan Heceoğlu , Alper Öner , Gülay Öke , Metin Göktaşan “Unmanned Ground Vehicle Otonobil: Design, Perception, and Decision Algorithms” ,Smart Mobile In-Vehicle Systems Next Generation Advancements, Springer (Submitted)
7. Hüseyin Abut, Hakan Erdoğan, Aytül Erçil, Baran Çürüklü, Hakkı Can Koman, Fatih Taş, Ali Özgür Argunşah, Serhan Coşar, Batu Akan, Harun Karabalkan, Emrehan Çökelek, Rahmi Fıçıcı, **Volkan Sezer**, Serhan Daniş, Mehmet Karaca, Mehmet Abbak, Mustafa Gökhan Uzunbaş, Kayhan Eritmen, Mümin İmamoğlu and Çağatay Karabat. “Real-World Data Collection with “UYANIK”, In-Vehicle Corpus and Signal Processing for Driver Behavior, Springer US - Boston, ISBN: 978-0-387-79581-2, 2009.

International Refereed Conference Papers

8. **Sezer V.**, Ercan Z., Heceoglu H., Gokasan M., Bogosyan S., “A New Fuzzy Speed Control Strategy Considering Lateral Vehicle Dynamics”, IEEE International Conference on Intelligent Transportation Systems-ITSC 2012 , 16-19 Sept, 2012, Alaska, USA, (*Accepted*)
9. **Sezer V.**, Ercan Z., Heceoglu H., Bogosyan S., Gokasan M., “A New Fuzzy Speed Planning Method for Safe Navigation”, IEEE International Conference on Vehicular Electronics and Safety(ICVES’12), pp. 381-386, 24-27 July, 2012, Istanbul-Turkey.
10. **Sezer V.**, Dikilitas Ç, Ercan Z., Heceoglu H., Öner A., Apak A., Gökasan M. and Mugan A., 2012: Conversion of a Conventional Electric Automobile Into an Unmanned Ground Vehicle (UGV) IEEE - International Conference on Mechatronics, pp. 564-569, April 13-15, 2011 ‘Istanbul, Turkey.
11. Ercan Z., **Sezer V.**, Heceoglu H., Dikilitas Ç, Gökasan M. and Mugan A. And Bogosyan S. 2011: Multi-Sensor Data Fusion of DCM Based Orientation Estimation for Land Vehicles IEEE - International Conference on Mechatronics, pp. 672-677, April 13-15, 2011, ‘Istanbul, Turkey
12. **Sezer V.**, Biliroğlu A.Ö., Demirci M., Uçarol H., Kural E., Özsu E., Kılıç V., Koçkan I., Yıldırım M., Hartavi A.E., Uygan I.M.C., Acarman T. , Güvenc L., “Design and Implementation of a Series-Parallel Light Commercial Hybrid Electric Vehicle” The 24th International Battery, Hybrid and Fuel-cell Electric Vehicle Symposium and Exhibition (EVS24), May 13-16, 2009, Norway.
13. Kural E., Ararat Ö, **Sezer V.**, Solak Y., Kütük O., Özsu E., Uçarol H., “Development of a Hybrid Electric Mid-Sized Bus Concept for Urban Transport”, SAE Powertrains, Fuels and Lubricants Meeting, Florence, June 2009, Italy.
14. Uygan I.M.C., Hartavi A.E., Güvenc L., Acarman T., Kılıç V., Özelgin İ., Yıldırım M., **Sezer V.**, “FOHEV II - The Ford Otosan Hybrid Electric Research Prototype Vehicle”, International Conference on Automotive Technologies, (ICAT’08) , November 13-14, 2008, Turkey.

15. Bahar M. D., Çimen A. M., Biliroğlu Ö. A., Elcik E, Solak Y., **Sezer V.**, Demirci M., Uçarol H., “Design & Prototyping of Hybrid Electric Vehicle Electronic Control Unit”, International Conference on Automotive Technologies, (ICAT’08) , November 13-14, 2008, Turkey.
16. **Sezer, V.**, Uygan, İ.M.C., Hartavi, A.E., Acarman, T., Güvenç, L., Kılıç, V., Yıldırım M., “Maximum Overall Efficiency Optimization Strategy (MOES) for Power Split Control of a Series-Parallel Hybrid Electric Vehicle,” SAE Commercial Vehicles Conference, Rosemont, Illinois, October 2008, USA.
17. Hartavi A.E., Uygan I.M.C., **Sezer V.**, Acarman T. , Güvenc L, Kılıç V., Yıldırım M., “Electric Regenerative Power Assisted Brake Algorithm for a Front and Rear Wheel Drive Parallel Hybrid Electric Commercial Van,” SAE Commercial Vehicles Conference, Rosemont, Illinois, October 2008, USA.
18. Hartavi A.E., Uygan I.M.C., **Sezer V.**, Acarman T. , Güvenc L, Goktan A.G., “Development of an Electric Power Assisted Brake Algorithm for Electrically Driven Land Vehicles”, 9th International Symposium on Advanced Vehicle Control, (AVEC’08) , October 6-9, 2008, Japan.
19. Hartavi A.E., Uygan I.M.C., **Sezer V.**, Acarman T. , Güvenc L, Kılıç V., Yıldırım M., “Signal Interfacing for Hybrid Electric Vehicular Electronics and an Implementation Study”, IEEE International Conference on Vehicle Electronic Systems, (ICVES 2008) , pp. 151-156, September 22-24, 2008, USA.
20. H. Abut, H. Erdogan, A. Ercil, B. Curuklu, H.C. Koman, F. Tas, A.O. Argunsah, S. Cosar, B. Akan, H. Karabalkan, E. Coklek, R. Ficici, **V. Sezer**, S. Danis, M. Karaca, M. Abbak. M.G. Uzunbas, K. Eritmen, C. Kalaycioglu, M. Imamoglu, C. Karabat, and M. Peyic, “Data Collection with “Uyanik”: Too much pain; but gains are coming,” Biennial on DSP for In-Vehicle and Mobile Systems, Istanbul, June 2007.

National Refereed Conference Papers

21. Danis S. , Aytekin B., Dinçmen E., **Sezer V.**, Ararat Ö., Öncü S., Güvenç A.B., Acarman T., Altuğ E., Güvenç L.; “Framework for Development of Driver Adaptive Warning and Assistance Systems That Will Be Triggered By a Driver Inattention Monitor”, 4. Otomotiv Teknolojileri Kongresi, June 1-4, 2008, Turkey.
22. Uygan I.M.C., **Sezer V.**, Hartavi A.E., Acarman T., Güvenc L., “Powertrain Design for Hybrid Electric Vehicles”, 4. Otomotiv Teknolojileri Kongresi, June 1-4, 2008, Turkey.
23. **Sezer V.**, Özyılmaz L., “TCP/IP ile uzaktan kontrollü devre tasarımı.(TCP/IP based electronic circuit control design)”, CEE(Chamber of Electrical Engineering) 11. National Electric-Electronics and Computer Congress (National Conference), P:474-477, 2005, Istanbul, Turkey

Workshop Papers

24. **Sezer V.**, “Unmanned Ground Vehicle ‘Otonobil’ with New Algorithms for Obstacle Avoidance”, Challenges and Opportunities for Green and Smart Vehicles-in Conjunction with IEEE ICVES’12, İstanbul, Turkey, 2012
25. **Sezer V.**, Dikilitas C., Ercan Z., Heceoglu H., Boyraz P., Gökaşan M., “Hardware and Software Structure of Unmanned Ground Vehicle Otonobil” , 5th Biennial Workshop on DSP for In-Vehicle Systems, Kiel, Germany, 2011
26. Ercan Z., **Sezer V.**, Heceoglu H., Boyraz P., Gökaşan M., “Multi-Sensor Data Acquisition, Processing and Logging Using Labview ” , 5th Biennial Workshop on DSP for In-Vehicle Systems, Kiel, Germany, 2011
27. **Sezer V.**, Uygan I.M.C., Hartavi A.E., Acarman T. , Güvenc L., “Propulsion System Design of a Hybrid Electric Vehicle”, The 3rd AUTOCOM International Workshop on Hybrid Electric Vehicle Modeling and Control, 2007, Istanbul, Turkey
28. Hartavi A.E., Uygan I.M.C., **Sezer V.**, Acarman T. , Güvenc L., “Development of Hybrid Braking Algorithm for Electric/Hybrid Electric Vehicles”, The 3rd AUTOCOM International Workshop on Hybrid Electric Vehicle Modeling and Control, June 12, 2007, Turkey.

Thesis Works

29. **Sezer V.**, “Ethernet üzerinden devre kontrolü(Ethernet Based Control Circuit Design)”, Undergraduate Thesis, Istanbul, 2005 ,Turkey
30. **Sezer V.**, “Modeling and Optimal Power Management of a Parallel Hybrid Electric Vehicle”, M.Sc Thesis, Istanbul, 2008, Turkey
31. **Sezer V.**, “A Novel Obstacle Avoidance Approach for Nonholonomic Ground Vehicle Autonomy”, PhD. Thesis, Istanbul, 2012, Turkey