VOLKAN YUSUF SENYUREK

Assistant Professor (Research Track)
Geosystems Research Institute
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Summary of Qualifications

- **Ph.D.:** Department of Electronics and Communication from Marmara University, Turkey, Jan 2013
- **Experience:** 10+ years of (Post Ph.D.) research in signal processing, machine learning, remote sensing, pattern recognition, and precision agriculture.
- **Publications:** 67+ academic publications, including 28 peer-reviewed journals, 36 peer reviewed conferences and 5 other publications, and 1 patent.
    - Total citation: >1055, h-index = 19 and i10-index = 28
    - *Since joining MSU:* 8 journals and 14 conferences
- **Grants:** 7 awarded external research grants (4 as PI, 1 as co-PI) with a total value of over $5 Million; ~$489K to self from USDA, MCPB, MSPB.
- **Graduate Student Advising/Co-advising:** 1 PhD graduated as co-adviser. Currently advising 2 PhD students.
- **Teaching:** I taught ECE core undergraduate classes: 1) Signals and Systems, 2) Microcontroller, 3) Electronics.

Research Interests

- Signal Processing
- Foundations applications of machine learning
    - Machine learning applications for Radar and Remote Sensing
    - Deep learning for inverse problems & computational imaging
    - Design and implementation of physics aware machine learning algorithms
- Radar & Remote Sensing
    - Time-Frequency Analysis, RF based activity sensing
    - UAS/Satellite based remote sensing
    - Passive radars, Signals of Opportunity (GNSS+R), Sensing with Software Defined Radios
    - Sensing from Aerial and Ground Robotics & Precision agriculture

Executive Research Summary

Publications: Total citation: >1000, h-index = 18 & i-10 = 28 [Google Scholar]

	Book Chapter	Journal	Peer-reviewed conferences	Other Publications (Abstract, poster)	Patents
@MSU(2019-)	-	8	12	5	-
Total	2	27	35	5	1

Grants: External Competitive Awarded Grants as PI and Co-PI

@MSU	#	USDA	other	#PI	#CoPI	#senior personal	Total ($)	My share ($)
Active	6	3	3	3	-	3	$1,669,000	$332,000
Completed	2	1	1	-	1	1	$3,497,000	$157,000
Total	8	4	4	3	1	4	$5,166,000	$489,000

Education

- **Marmara University.** Istanbul/Turkey ……..…(01/2013)
  PhD in Department of Electronics and Communication
  Dissertation: Improving The Performance of Fiber Optic Gyroscope Using Digital Signal Processing Techniques
  Advisor: Prof. H. Selcuk Varol

- **Marmara University.** Istanbul/Turkey ……...…(01/2007)
  MS in Department of Electronics and Communication

- **Marmara University.** Istanbul/Turkey ……..……(06/2003)
  BS in Department of Electronics and Communication

Professional Experience

- **Mississippi State University, Starkville, MS**
  Assistant Research Professor . . . . . (10/2019‑present)
  Geosystems Research

- **University of Alabama, Tuscaloosa, AL**
  Postdoctoral Associate . . . . . .(05/2017-10/2019)
  Department of Electrical and Computer Engineering

- **Florida International University, Miami, FL**
  Postdoctoral Associate . . . . . .(10/2015-05/2017)
  Department of Mechanical and Materials Engineering

- **Marmara University, Istanbul, Turkey**
  Assistant Professor . . . . (01/2014‑10/2015)
  Department of Electrical and Electronics

- **Marmara University, Istanbul, Turkey**
  Research/Teaching Graduate Assistant. . . . . .. (01/2004‑01/2014)
  Department of Electrical and Electronics

Sponsored Research Projects and Grants

#	Sponsor	Title	Period	Total Awarded ($)	My Share($)	Position
Current Awards:						
1	USDA-ARS	Deep Learning Based High-Resolution Field Level Soil Moisture Mapper from UAVs	5/24- 4/25	99K	99K	PI
2	MS Corn Board	UAV-based autonomous unsupervised weed detection for corn fields	01/23 - 12/24	116K	116K	PI
3	MS Soybean Board	UAV-based Soil Moisture Mapper and Visualization for Soybean Fields	01/23 -12/23	52K	52K	PI
4	USDA-NACA	Advanced autonomy, precision agriculture and artificial intelligence for dynamic, robust and resilient cropping systems	09/23 - 08/24	831K	41K	Co-I
5	NCDOT	Demonstrating the Capabilities of UAS Topobathymetric LiDAR Mapping in Support of DOT Project Planning, Monitoring and Modeling	10/23 – 9/24	208K	8K	Co-I
6	USDA-ARS	Robbing the Poor to Feed the Rich (the Plague): How Movements of Robber-Bees Proliferate Parasite-Borne Disease in Honey Bee Colonies	9/23 – 8/24	363K	16K	Co-I
Completed Awards						
1	USDA-ASR	Advancement of UAS/UAV Application Systems	09/19- 09/23	3,452K	150K	Senior
2	ORED	Estimating hive strength and pollination efficiency using a machine learning approach	01/22 – 05/24	45K	7K	Co-PI

Publications

PEER REVIEWED JOURNAL ARTICLES

Published (reverse chronology):

1. M. M. Nabi, **V. Senyurek**, M. Kurum and A. C. Gurbuz, (2024) "Best Linear Unbiased Estimators for Fusion of Multiple CYGNSS Soil Moisture Products," in *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, doi: 10.1109/JSTARS.2024.3443100
2. M. M. Nabi, **V. Senyurek**, F. Lei, M. Kurum and A. C. Gurbuz, (2023). "Quasi-Global Assessment of Deep Learning-Based CYGNSS Soil Moisture Retrieval," in *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 16, pp. 5629-5644, doi: 10.1109/JSTARS.2023.3287591.
3. **Senyurek, V**., Farhad, M., Gurbuz, A., Kurum, M., Adeli, (2022). A. Fusion of Reflected GPS Signals with Multispectral Imagery to Estimate Soil Moisture at Sub-field Scale form Small UAS platforms. *Journal of*

Selected Topics in Applied Earth Observations and Remote Sensing. vol. 15, pp. 6843-6855 doi: 10.1109/JSTARS.2022.3197794

4. Nabi, M., **Senyurek, V**., Gurbuz, Ali., Kurum, M. (2022) Deep Learning-based Soil Moisture Retrieval in CONUS using CYGNSS Delay Doppler Maps. *Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. vol. 15, pp. 6867-6881, doi: 10.1109/JSTARS.2022.3196658.
5. Lei F., **Senyurek V**., Kurum M., et al. (2022). Quasi-global machine learning-based soil moisture estimates at high spatio-temporal scales using CYGNSS and SMAP observations, *Remote Sensing of Environment,* 276, 113041.
6. **Senyurek, V.,** Gurbuz C., & Kurum, M. (2021). Assessment of Interpolation Errors of CYGNSS Soil Moisture Estimations. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 14, 9815-9825.
7. **Senyurek, Volkan**, et al. (2021), Electromyogram in Cigarette Smoking Activity Recognition. *Signals* 2.1 87-97.
8. **Senyurek, V.;** Lei, F.; Boyd, D.; Gurbuz, A.C.; Kurum, M.; Moorhead, R. (2020), Evaluations of Machine Learning-Based CYGNSS Soil Moisture Estimates against SMAP Observations. *Remote Sens.*, *12*, 3503.
9. **Senyurek, V**.; Lei, F.; Boyd, D.; Kurum, M.; Gurbuz, A.C.; Moorhead, R. (2020), Machine Learning-Based CYGNSS Soil Moisture Estimates over ISMN sites in CONUS. *Remote Sens.* 2020, 12, 1168.
10. M. H. Imtiaz, D. Hossain, **V. Y. Senyurek**, P. Belsare, S. Tiffany, and E. Sazonov*,* (2020), Wearable Egocentric Camera as a Monitoring Tool of Free-living Cigarette Smoking: A Feasibility Study, *Nicotine & Tobacco Research,* doi:10.1093/ntr/ntz208.
11. **V. Senyurek**, M. Imtiaz, P. Belsare, S. Tiffany, and E. Sazonov, (2020), A CNN-LSTM Neural Network for Recognition of Puffing in Smoking Episodes Using Wearable Sensors, *Biomed. Eng. Lett.* (2020). https://doi.org/10.1007/s13534-020-00147-8.
12. P. Belsare, **V. Senyurek**, M. Imtiaz, S. Tiffany, and E. Sazonov, (2019) *"*Computation of Cigarette Smoke Exposure Metrics from Breathing*" IEEE Transactions on Biomedical Engineering,* doi: 10.1109/TBME.2019.2958843
13. **V. Senyurek**, M. Imtiaz, P. Belsare, S. Tiffany, and E. Sazonov, "Smoking Detection Based on Regularity Analysis of Hand to Mouth Gestures" *Biomedical Signal Processing and Control,* 51. 106-112 (2019)
14. **V. Senyurek**, M. Imtiaz, P. Belsare, S. Tiffany, and E. Sazonov, "Cigarette Smoking Detection with an Inertial Sensor and A Smart Lighter," *Sensors*, vol. 19(3), 2019.
15. S Tashakori,A Baghalian,**V Y Senyurek**, S Farhangdoust, D McDaniel. I Tansel. (2018). "Composites Bond Inspection Using Heterodyne Effect and SuRE Methods". *Shock and Vibration.* 1, 1-6 (2018)
16. Baghalian, A., Tashakori, S., **Senyurek, V. Y**., Unal, M., McDaniel, D., & Tansel, I. N. (2018). "Development of Comprehensive Heterodyne Effect Based Inspection (CHEBI) Method for Inclusive Monitoring of Cracks". *Measurement*, 128, 89-95 (2018)
17. Baghalian, A., **Senyurek, V. Y**., Tashakori, S., McDaniel, D., & Tansel, I. N. (2018). "A Novel Nonlinear Acoustic Health Monitoring Approach for Detecting Loose Bolts" *Journal of Nondestructive Evaluation*, 37(2), 24.
18. S Tashakori, A Baghalian, **VY Senyurek**, M Unal, D McDaniel, IN Tansel, "Implementation of heterodyning effect for monitoring the health of adhesively bonded and fastened composite joints", *Applied Ocean Research* 72, 51-59 (2018)
19. Masudul Haider Imtiaz, Raul I. Ramos-Garcia, **Volkan Yusuf Senyurek**, Stephen Tiffany, Edward Sazonov. "Development of a Multisensory Wearable System for Monitoring Cigarette Smoking Behavior in Free-Living Conditions", *Electronics* 2017, 6(4), 104
20. **V. Y.Senyurek**, A. Baghalian, S. Tashakori, D. McDaniel, I. N. Tansel "Localization of multiple defects using the compact phased array (CPA) method", *Journal of Sound and Vibration*, 413. (2018): 383-394
21. Baghalian A, T, Shervin, **Senyurek V,** McDaniel D, Tansel "Non-Contact Quantification of Longitudinal and Circumferential Defects in Pipes using the Surface Response to Excitation (SuRE) Method" *International Journal of Prognostics and Health Management.* 8. (2017): 1-8
22. T, Shervin, Baghalian A, Unal M, Fekrmandi H, **Senyurek V**, McDaniel D, Tansel "Contact and non-contact approaches in load monitoring applications using surface response to excitation method." *Measurement*. 89. (2016): 197-203
23. **Senyurek, V. Y**. "Detection of cuts and impact damage at the aircraft wing slat by using Lamb wave method." *Measurement* 67 (2015): 10-23.
24. Demetgul, M., **Senyurek, V. Y.,** Uyandik, R., Tansel, I. N., & Yazicioglu, O. "Evaluation of the health of riveted joints with active and passive structural health monitoring techniques." *Measurement* 69 (2015): 42-51.
25. Baspınar, U., **Senyurek, V. Y**., Dogan, B., & Varol, H. S. "A comparative study of denoising sEMG signals." *Turkish Journal of Electrical Engineering & Computer Sciences* 23 (2015): 931-944.

26. **Senyurek, Volkan Y**., Ulvi Baspinar, and Huseyin S. Varol. "A Modified Adaptive Kalman Filter for Fiber Optic Gyroscope." *Revue Roumaine Des Sciences Techniques-Serie Electrotechnique Et Energetique* 59.2 (2014): 153-162.
27. Yildiz, K., **Şenyürek, V. Y**., Yildiz, Z., & Özen, M. S. "A New Approach to the Determination of Warp-Weft Densities in Textile Fabrics by Using an Image Processing Technique." *Journal of Engineered Fabrics & Fibers (JEFF)*, (2014). 9(1).
28. Baspinar, Ulvi, Huseyin Selcuk Varol, and **Volkan Yusuf Senyurek**. "Performance comparison of artificial neural network and Gaussian mixture model in classifying hand motions by using sEMG signals." *Biocybernetics and Biomedical Engineering* 33.1 (2013): 33-45.

PEER REVIEWED CONFERENCES:

Published (reverse chronology):

1. M. M. Farhad, **V. Senyurek**, M. A. S. Rafi, A. Adeli, M. Kurum and A. C. Gurbuz, "Preliminary Results from Three Years of UAS-Based GNSS-R Field Campaign Over Agricultural Fields For Field-Scale Soil Moisture Retrieval," *IGARSS 2024 - 2024 IEEE International Geoscience and Remote Sensing Symposium*, Athens, Greece, 2024, pp. 4477-4481, doi: 10.1109/IGARSS53475.2024.10641343.
2. **Senyurek, V**., & Gurbuz, A. (2024). "Performance Assessment of Crop Line Detection in Corn Field from Unmanned Aerial Vehicle Video". *SPIE 13053, Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping IX*. National Harbor, Maryland, United States: SPIE. 13053, 89-98.
3. Hicks, B., Ayna, C. O., **Senyurek, V.,** Gupta, S., Skarke, A., & Gurbuz, A. (2023). "Machine Learning Based Automated Detection of Seafloor Gas Seeps". *OCEANS 2023 - MTS/IEEE U.S. Gulf Coast*. Biloxi, MS, USA: IEEE. 1-6.
4. Belsare, P., **Senyurek, V**., Imtiaz, M., Tiffany, S. T., & Sazonov, E. (2023). "DeepPuff: Utilizing Deep Learning for Smoking Behavior Identification in Free-living Environment". *45th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*. Sydney, Australia: IEEE. 1-5. DOI:10.1109/EMBC40787.2023.10340528.
5. Kurum, M., Farhad, M., **Senyurek, V**., and Gurbuz, A.: Enabling subfield scale soil moisture mapping in near real-time by recycling L-band GNSS signals from drones, *EGU General Assembly 2023*, Vienna, Austria, 24–28 Apr 2023, EGU23-10991, https://doi.org/10.5194/egusphere-egu23-10991.
6. Bozdag, E., **Senyurek, V**., Nabi, M., Kurum, M., Gurbuz, A., "Fusing SENTINEL-1 with CYGNSS to account for vegetation effects in Soil Moisture Retrievals", *In IGARSS 2023 IEEE International Geoscience and Remote Sensing Symposium,*
7. P. Belsare et al., (2022), "Analyzing Impact of Mouthpiece-based Puff Topography Devices on Smoking Behavior using Wearable Sensors," *2022 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC),* Glasgow, Scotland, United Kingdom, pp. 1787-1791, doi: 10.1109/EMBC48229.2022.9871589.
8. **V. Senyurek**, F. Lei, A. C. Gurbuz, M. Kurum and R. Moorhead, "Machine learning-based global soil moisture estimation using GNSS-R," *SoutheastCon 2022*, 2022, pp. 434-435, doi: 10.1109/SoutheastCon48659.2022.9764039.
9. **Senyurek, V**., Farhad, M., Gurbuz, A. C., Kurum, M., & Moorhead, R. (2021, November). SoilMoistureMapper: a GNSS-R approach for soil moisture retrieval on UAV. *In AI for Agriculture and Food Systems*.
10. Lei, F., **Senyurek, V**., Kurum, M., Gurbuz, A., Boyd, D., & Moorhead, R. (2021, July). Quasi-Global GNSS-R Soil Moisture Retrievals at High Spatio-Temporal Resolution from Cygnss and Smap Data. *In 2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS* (pp. 6303-6306). IEEE.
11. **Senyurek, V.,** Gurbuz, A., Kurum, M., Lei, F., Boyd, D., & Moorhead, R. (2021, July). Spatial and temporal interpolation of CYGNSS soil moisture estimations. *In 2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS* (pp. 6307-6310). IEEE.
12. Kurum, M., Gurbuz, A. C., Barnes, S., Boyd, D. R., Duck, M., Farhad, M. M., ... & **Senyurek, V.** (2021, April). "A UAS-based RF testbed for water utilization in agroecosystems". *In Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping VI* (Vol. 11747, p. 117470J). International Society for Optics and Photonics.
13. Lei, F., **Senyurek, V.,** Kurum, M., Gurbuz, A., Moorhead, R., & Boyd, D. (2020). Machine-Learning Based Retrieval of Soil Moisture at High Spatio-Temporal Scales Using CYGNSS and SMAP Observations. *In IGARSS 2020-2020 IEEE International Geoscience and Remote Sensing Symposium* (pp. 4470-4473). IEEE.

14. M. H. Imtiaz, D. Hossain, **V. Y. Senyurek**, P. Belsare and E. Sazonov, "PACT CAM: Wearable Sensor System to Capture the Details of Cigarette Smoking in Free-Living," 2020 IEEE Sensors, Rotterdam, Netherlands, 2020, pp. 1-4, doi: 10.1109/SENSORS47125.2020.9278805.
15. **Volkan Senyurek**, Masudul Imtiaz, Naeemul Hassan, "Detection of drinking via a wrist-worn inertial sensor." 6th International Electronic Conference on Sensors and Applications. 14 November 2019.
16. **V. Y. Senyurek**, M. H. Imtiaz, P. Belsare, S. Tiffany, and E. Sazonov. "A Comparison of SVM and CNN-LSTM Based Approach for Detecting Smoke Inhalations from Respiratory Signal", 41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), July 23– 27, 2019. Berlin, Germany
17. M. H. Imtiaz, **V. Y. Senyurek**, P. Belsare, S. Tiffany, and E. Sazonov. "Objective Detection of Cigarette Smoking from Physiological Sensor Signals", 41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), July 23– 27, 2019. Berlin, Germany
18. M. H. Imtiaz, **V. Y. Senyurek**, P. Belsare, K. Nagaraja, and E. Sazonov. "Development of a Smart IoT Charger for Wearable Cigarette Smoking Monitor", *in IEEE SoutheastCon*, April 11-14, 2019. Huntsville, U.S.
19. Baghalian, A, Tashakori, S., **Senyurek, V**., Unal, M., and Tansel. I. "Heterodyning Effect in Composites Bond Inspection." *Proceedings of the Eleventh International Workshop on Structural Health Monitoring, September 12–14, 2017*.
20. Tashakori, S., Baghalian, A, **Senyurek, V**., Unal, M., and Tansel. I. "Novel Approaches for Loose Bolt Detection With and Without Sensors using Heterodyning Effect." *Proceedings of the Eleventh International Workshop on Structural Health Monitoring, September 12–14, 2017*
21. Baghalian, A., Tahakori, S., Fekrmandi, H., Unal, M., **Senyurek, V**. Y., McDaniel, D., & Tansel, I. N. (2017). "Implementation of the Surface Response to Excitation Method for Pipes". In Mechanics of Composite and Multi-functional Materials, Volume 7 (pp. 261-266). Springer International Publishing.
22. Tashakori, S., Baghalian, A., Unal, M., **Senyurek, V**. Y., Fekrmandi, H., McDaniel, D., & Tansel, I. N. (2017). "Load Monitoring Using Surface Response to Excitation Method." In Mechanics of Composite and Multi-functional Materials, Volume 7 (pp. 209-214). Springer International Publishing.
23. S. Tashakori, A. Baghalian, J. Cuervo, **V. Y. Senyurek**, I. N. Tansel and B. Uragun, "Inspection of the machined features created at the embedded sensor aluminum plates," *2017 8th International Conference on Recent Advances in Space Technologies (RAST)*, Istanbul, 2017, pp. 517-522.
24. A. Baghalian, S. Tashakori, J. R. Soto, **V. Y. Senyurek**, I. N. Tansel and B. Uragun, "Internal defect detection in hollow cylindrical structures using the Surface Response to Excitation (SuRE) Method," *2017 8th International Conference on Recent Advances in Space Technologies (RAST)*, Istanbul, 2017, pp. 523-527.
25. **V. Y. Şenyürek**, M. Ünal and H. S. Varol, "Genetic Optimized Wavelet Denoising for FOG Signals", International Symposium on Innovations in Intelligent Systems and Applications, 21-24 June 2010, Kayseri & Cappadocia, TURKEY.
26. Böcekçi V.G., **Şenyürek V. Y**., Başpınar U., Varol H. S., Denoising of the Interferogram Video Signals by 2D Wavelet Transform Technique, The Fifth International Symposium on Wavelets Applications to World Problems "IWW" 2010, İstanbul.
27. M. Demetgül, İ.N. Tansel, **V. Y. Şenyürek**, O. Yazıcıoğlu, "Milling Tool Wear Detection using Lamb Wave", 1. International Conference on Sustainable Life In Manufacturing, June 24-25, 2010, ISPARTA-TURKEY.
28. I. Usta, E. Sancak, M. Yuksek, A. Beyıt & **V. Y. Senyurek**, "Effect of metal filament wire containing knitting fabrics on electromagnetic shielding effectiveness (EMSE)", ITC&DC - Internatıonal Textıle, Clothıng & Desıgn Conference, 3-6 October, 2010, DUBROVNIK – CROATIA.
29. M. Akalın, M. O.Sözen, İ. Usta, E Sancak, A. Beyit, **V. Y. Şenyürek**, "An Investgation of Electromagnetic Shilging Properties of Nonwoven Fabrics with Metal Fiber" The Textile Institute Centenary Conference Textile: Global Vision 3-4 November 2010 Manchester, UK.
30. M. Demetgül, **V. Y. Şenyürek**, İ. Nur Tansel, O. Yazıcıoğlu, "Angular Crack Monitoring of Aluminum Plate by Lamb Wave Analysis", 6TH internatıonal advanced technologıes symposıum (IATS'11), 16-18 May 2011, Elazığ-TURKEY.
31. K. Yıldız, **V.Y. Şenyürek**, Z. Yıldız, "Prediction of Warp-Weft Densities in Textile Fabrics by Image Processing", 2nd International Symposium on Computing in Science & Engineering (ISCSE2011) June 1-4, 2011, İzmir-TURKEY.
32. **V. Y. Şenyürek** and H. S. Varol, "Low Cost Fiber Optic Angular Velocity Sensor" ELECO'2007, 5th International Conference on Electrical and Electronics Engineering. 5 - 9 December 2007, Bursa – TURKEY.

33. Uğur, M. H., Güngör, A., Usta, İ., Yıldız, Z. & **Şenyürek, V. Y**. (2011). "Electromagnetic Shielding Properties Of UV-Cured Aliphatic PUA/MWCNT/E-Glass Composites In The 3-13 GHz Frequency Range" International Congress of Innovative Textiles (ICONTEX). İstanbul, Turkey
34. IN Tansel, **VY Şenyürek**, M Ünal, A Baghalian, S Tashakori (2016). "Implementation of Heterodyne Effect in Structural Health Monitoring (SHM) Systems" The 29'th Florida Conference on Recent Advances in Robotics and Robot Showcase, FCRAR 2016, p. 254-257. Miami, FL.
35. IN Tansel, **VY Şenyürek**, M Ünal, A Baghalian, S Tashakori (2016). "Loose Bolt Detecting Sensorless SHM System" The 29'th Florida Conference on Recent Advances in Robotics and Robot Showcase, FCRAR 2016, p. 258-261. Miami, FL.
36. IN Tansel, **VY Şenyürek**, M Ünal, A Baghalian, S Tashakori (2016). "Loose Bolt Detection Using Smart Washers" The 29'th Florida Conference on Recent Advances in Robotics and Robot Showcase, FCRAR 2016, p. 220-224. Miami, FL.

OTHER PUBLICATIONS (Abstracts, Non-English Publications):

1. Hodges, E., Chew, C., Al-Khalidi, M., Ouellette, J., Johnson, T., Lei, F., Kurum, M., Gurbuz, A., & **Senyurek, V.** (2024). A Blended CYGNSS Soil Moisture Product Partitioned with Ancillary Data. *2024 United States National Committee of URSI National Radio Science Meeting (USNC-URSI NRSM)*. Boulder, CO, USA: IEEE. 174. DOI:10.23919/USNC-URSINRSM60317.2024.10464722.
2. McCraine, C., Bheemanahalli, R., **Senyurek, V.**, & Hu, J. (2022). A Framework for Relating UAS Data to Soil Moisture and Health. *STRATUS 2022 Conference*. Syracuse, NY.
3. B. Dogan, **V.Y. Seyurek** (2013). "Elektronik Denge Kontrol Modülü (EDKM)". *Otomasyon Dergisi*,Bileşim Yay. AŞ. Cilt 1. sf 368-370
4. Demetgül M., **Şenyürek V.Y.,** Yüce H. (2015). "Cıvatalı Birleştirmelerdeki Hasarların Lamb Dalgası Tekniğiyle Bulunması", *Marmara Fen Bilimleri Dergisi* 2015, 3: 76-82, DOI:10.7240/mufbed.66865
5. Dogan, B., **Senyürek, V., Y.,** "Akilli Damper",ST Otomasyon Dergisi, *Alternatif Yayincilik*, Sayi: 60, p.p. 116-119, Aralik, 2013.

DATASETS

1. P. Chaudhary, C. Foley, S. Samiappan, L. Kohler, **V. Senyurek**, D. Boes, P. Chakrabarti, "HoneyBee Image Dataset for Machine Learning and Computer Vision Model Building" (2024). GRI Publications and Scholarship. Starkville, MS. https://doi.org/10.54718/JCHW9401.
2. **Volkan Senyurek**, Edward Sazonov, Stephan Tiffany, Masudul Imtiaz, Prajakta Belsare, December 23, 2019, "In-smoking respiration and hand gesture IMU signals", IEEE Dataport, doi: https://dx.doi.org/10.21227/7d8x-yr60.

PATENTS AND INTELLECTUAL PROPERTIES:

1. Tansel Ibrahim, **Volkan Senyurek**, Muhammed Unal, Amin Baghalian, and Shervin Tashakori. "Implementation of Heterodyne Effect In SHM And Talking SHM Systems." U.S. Patent No 10,191,013 B2, January 29, 2019.

Awards and Scholarships

Scholarships:

- TUBITAK, Scientific and Technological Research Council of Turkey, 2007-2013
- TUBITAK, Scientific and Technological Research Council of Turkey 2015-2016

Teaching

Taught Undergraduate classes at Marmara University:

- Electronics Circuits (Spring 2015)
- Microcontrollers (Fall 2015, Spring 2015)
- Test and Measurement (Fall 2015)
- Communication (Fall 2014)

Taught Graduate classes at Marmara University:

- Fiber optic and Applications (*Fall 2015*)

Graduate Student Advising

Graduated Ph.D. (Major Advisor) (2):

- Mohammad Abdus Shahid Rafi (Spring 2023- present)
- Md Ebtidaul Karim (August 2024 - present)

Graduated Ph.D. (Co-Major Advisor) (1):

- M. M. Nabi (Fall 2019 – Summer 2024)

Service and Professional Activities

Reviewer: (2018-)

For Following Journals:

- IEEE Sensors
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing
- IEEE Transactions on AgriFood Electronics.
- MDPI Remote sensing
- Sensors & Actuators: A. Physical
- Signal, Image and Video Processing
- Journal of Ambient Intelligent and Smart Environment

For Following Conferences:

- IEEE SPMB 2023 conference

Additional

LANGUAGES:

- Turkish (Native), English

STATUS:

- Permanent resident

REFERENCES

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