

## Asst. Prof. SALİH SARP

### Personal Information

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### Education Information

Doctorate, Virginia Commonwealth University, United States Of America 2020 - 2022

Postgraduate, The George Washington University, United States Of America 2016 - 2018

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

- I. **Analysis of deceptive data attacks with adversarial machine learning for solar photovoltaic power generation forecasting**  
Kuzlu M., Sarp S., Catak F. O., Cali U., Zhao Y., ELMA O., Guler O.  
Electrical Engineering, vol.106, no.2, pp.1815-1823, 2024 (SCI-Expanded)
- II. **AI based fuzzy MCDM models: Comparison and evaluation of dissimilar outcomes, an application to enhance pilot recruitment process**  
Taylan O., Güloğlu B., Alkabaa A. S., Sarp S., Alidrisi H. M., Milyani A. H., Alidrisi H., Balubaid M.  
Expert Systems, 2024 (SCI-Expanded)
- III. **Digital Twin in Healthcare: A Study for Chronic Wound Management**  
Sarp S., Kuzlu M., Zhao Y., Gueler O.  
IEEE Journal of Biomedical and Health Informatics, vol.27, no.11, pp.5634-5643, 2023 (SCI-Expanded)
- IV. **An XAI approach for COVID-19 detection using transfer learning with X-ray images**  
Sarp S., Catak F. O., Kuzlu M., Cali U., Kusetogullari H., Zhao Y., Ates G., Guler O.  
Heliyon, vol.9, no.4, 2023 (SCI-Expanded)
- V. **A Comparison of Deep Learning Algorithms on Image Data for Detecting Floodwater on Roadways**  
Sarp S., Kuzlu M., Zhao Y., Cetin M., Guler O.  
Computer Science and Information Systems, vol.19, no.1, pp.397-414, 2022 (SCI-Expanded)
- VI. **The Enlightening Role of Explainable Artificial Intelligence in Chronic Wound Classification**  
SARP S., KUZLU M.  
ELECTRONICS (Basel), vol.10, 2021 (SCI-Expanded)

### Articles Published in Other Journals

- I. **BFV-Based Homomorphic Encryption for Privacy-Preserving CNN Models**  
SARP S.  
Cryptography, vol.6, 2022 (Scopus)

## Books & Book Chapters

### I. **Digital Twin in Industry 4.0 and Beyond Applications**

JAVANOVIC V., KUZLU M., ÇALI Ü., UTKU D. H., ÇATAK F. Ö., SARP S., ZOHRABI N.

in: Digital Twin Driven Intelligent Systems and Emerging Metaverse, Enis Karaarslan, Ömer Aydın, Ümit Cali, Moharram Challenger, Editor, SPRINGER, pp.155-174, 2023

### II. **Digital Twin Applications for Smart and Connected Cities**

UTKU D. H., ÇATAK F. Ö., KUZLU M., SARP S., JAVANOVIC V., ÇALI Ü., ZOHRABI N.

in: Digital Twin Driven Intelligent Systems and Emerging Metaverse, KARAASLAN ENİS, AYDIN ÖMER, ÇALI ÜMİT, Editor, SPRINGER, pp.141-154, 2023

## Refereed Congress / Symposium Publications in Proceedings

### I. **Non-Cryptographic Privacy Preserving Machine Learning Methods: A Review**

ŞAHİNBAŞ K., Catak F. O., Kuzlu M., Tabassum M., Sarp S.

2nd International Conference on Advanced Engineering, Technology and Applications, ICAETA 2023, İstanbul, Turkey, 10 - 11 March 2023, vol.1983 CCIS, pp.410-421

### II. **Secure Future Healthcare Applications Through Federated Learning Approaches**

Tabassum M., Kuzlu M., Catak F. O., Sarp S., ŞAHİNBAŞ K.

2nd International Conference on Advanced Engineering, Technology and Applications, ICAETA 2023, İstanbul, Turkey, 10 - 11 March 2023, vol.1983 CCIS, pp.214-225

### III. **Integration of OMNeT++ into a Networking Course in an Electrical Engineering Technology Program**

Kuzlu M., Tamayo B. E., Sarp S., Popescu O., Jovanovic V. M.

2023 ASEE Annual Conference and Exposition - The Harbor of Engineering: Education for 130 Years, ASEE 2023, Maryland, United States Of America, 25 - 28 June 2023

### IV. **Development of Sensing and Programming Activities for Engineering Technology Pathways Using a Virtual Arduino Simulation Platform**

Kuzlu M., Jovanovic V. M., Popescu O., Sarp S.

2023 ASEE Annual Conference and Exposition - The Harbor of Engineering: Education for 130 Years, ASEE 2023, Maryland, United States Of America, 25 - 28 June 2023

### V. **Development of a Data Science Curriculum for an Engineering Technology Program**

Sarp S., Kuzlu M., Popescu O., Jovanovic V. M., Acar Z.

2023 ASEE Annual Conference and Exposition - The Harbor of Engineering: Education for 130 Years, ASEE 2023, Maryland, United States Of America, 25 - 28 June 2023

### VI. **Sales Forecasting During the COVID-19 Pandemic for Stock Management**

Yildirim E., Cam V., Balki F., Sarp S.

Proceedings of the 10th Machine Intelligence and Digital Interaction Conference, MIDI 2022, Virtual, Online, 12 - 15 December 2022, vol.710 LNNS, pp.111-123

### VII. **Uncertainty Aware Deep Learning Model for Secure and Trustworthy Channel Estimation in 5G Networks**

Catak F. O., Cali U., Kuzlu M., Sarp S.

12th Mediterranean Conference on Embedded Computing, MECO 2023, Budva, Montenegro, 6 - 10 June 2023

### VIII. **The Rise of Generative Artificial Intelligence in Healthcare**

Kuzlu M., Xiao Z., Sarp S., Catak F. O., Gurler N., Guler O.

12th Mediterranean Conference on Embedded Computing, MECO 2023, Budva, Montenegro, 6 - 10 June 2023

### IX. **Security Concerns of Adversarial Attack for LSTM/BiLSTM Based Solar Power Forecasting**

Kuzlu M., Tamayo B. E., Sarp S., Catak F. O., Cali U., Zhao Y.

2023 IEEE Power and Energy Society General Meeting, PESGM 2023, Florida, United States Of America, 16 - 20 July 2023, vol.2023-July

### X. **Homomorphic Encryption and Federated Learning based Privacy-Preserving CNN Training: COVID-**

## **19 Detection Use-Case**

Wibawa F., Catak F. O., Kuzlu M., Sarp S., Cali U.

2022 European Interdisciplinary Cybersecurity Conference, EICC 2022, Virtual, Online, Spain, 15 - 16 June 2022, pp.85-90

- XI. **A Streamlit-based Artificial Intelligence Trust Platform for Next-Generation Wireless Networks**  
Kuzlu M., Catak F. O., Sarp S., Cali U., Gueler O.  
2022 IEEE Future Networks World Forum, FNWF 2022, Virtual, Online, Canada, 12 - 14 October 2022, pp.94-97
- XII. **Sentiment Analysis Using State of the Art Machine Learning Techniques**  
Balci S., Demirci G. M., Demirhan H., Sarp S.  
9th Machine Intelligence and Digital Interaction Conference, MIDI 2021, Virtual, Online, 9 - 10 December 2021, vol.440 LNNS, pp.34-42
- XIII. **Mitigating Attacks on Artificial Intelligence-based Spectrum Sensing for Cellular Network Signals**  
Catak F. O., Kuzlu M., Sarp S., Catak E., Cali U.  
2022 IEEE GLOBECOM Workshops, GC Wkshps 2022, Virtual, Online, Brazil, 4 - 08 December 2022, pp.1371-1376
- XIV. **Security and Threats of Intelligent Reflecting Surface Assisted Wireless Communications**  
Tang H., Sarp S., Zhao Y., Wang W., Xin C.  
31st International Conference on Computer Communications and Networks, ICCCN 2022, Virtual, Online, United States Of America, 25 - 27 July 2022, vol.2022-July
- XV. **Realization of a Real-Time Decision Support System to Reduce the Risk of Diseases Caused by Posture Disorders Among Computer Users**  
Gumuskeynak E., Toptas F., Aslantas R., Balki F., Sarp S.  
9th Machine Intelligence and Digital Interaction Conference, MIDI 2021, Virtual, Online, 9 - 10 December 2021, vol.440 LNNS, pp.122-130
- XVI. **Work in Progress: Activating Computational Thinking by Engineering and Coding Activities through Distance Education**  
Sarp S., Demirhan H., Akca A., Balki F., Ceylan S.  
2021 ASEE Virtual Annual Conference, ASEE 2021, Virtual, Online, 26 - 29 July 2021
- XVII. **An interpretable solar photovoltaic power generation forecasting approach using an explainable artificial intelligence tool**  
Sarp S., Kuzlu M., Cali U., ELMA O., Guler O.  
2021 IEEE Power and Energy Society Innovative Smart Grid Technologies Conference, ISGT 2021, Washington, United States Of America, 16 - 18 February 2021
- XVIII. **Use of Intelligent Reflecting Surfaces for and Against Wireless Communication Security**  
Sarp S., Tang H., Zhao Y.  
4th IEEE 5G World Forum, 5GWF 2021, Virtual, Online, Canada, 13 - 15 October 2021, pp.374-377
- XIX. **An initial look into the computer science and cybersecurity pathways project for career and technical education curricula**  
Jovanovic V. M., Kuzlu M., Popescu O., Badawi A. R., Marshall D. K., Sarp S., Tsouganatou S., Katsioloudis P. J., Vahala L., Wu H. M.  
2020 ASEE Virtual Annual Conference, ASEE 2020, Virtual, Online, 22 - 26 June 2020, vol.2020-June
- XX. **Realizing the potential of blockchain technology in smart grid applications**  
Kuzlu M., Sarp S., Pipattanasomporn M., Cali U.  
2020 IEEE Power and Energy Society Innovative Smart Grid Technologies Conference, ISGT 2020, Washington, United States Of America, 17 - 20 February 2020

## **Metrics**

Publication: 30

Citation (Scopus): 189

H-Index (Scopus): 7