

Electrical Engineering Department College of
Engineering/King Khalid University

2022 Journals

1. Thafasal Ijyas, V.P., Mayet, A.M. Electronic circuit implementation of the compartmental models for population dynamics of COVID-19 like epidemics. SÄadhan 47, 47 (2022). <https://doi.org/10.1007/s12046-022-01821-6>.
2. J Mallick, M Ahmed, SD Alqadhi, II Falqi, M Parayangat, Spatial stochastic model for predicting soil organic matter using remote sensing data CK Singh,, Geocarto International 37 (2), 413-444
3. Amrr SM, Sarkar R, Banerjee A, Saidi AS, Nabi M. Fault-tolerant finite-time adaptive higher order sliding mode control with optimized parameters for attitude stabilization of spacecraft. Int J Robust Nonlinear Control. First published: 09 December 2021/ Volume 32, Issue 5, March 2022; pages: 2845-2863. <https://doi.org/10.1002/rnc.5934>.
4. Abdelaziz Salah Saidi ""Impact of Grid-Tied Photovoltaic Systems on Voltage Stability of Tunisian Distribution Networks using Dynamic Reactive Power Control"". Ain Shams Engineering Journal 13 (2022) 101537. [https://authors.elsevier.com/sd/article/S2090-4479\(21\)00288-4](https://authors.elsevier.com/sd/article/S2090-4479(21)00288-4)
5. Draou, A., Al Ahmadi, S., Saidi, A.S. Assessment of the potentials of solar energy and radiation at the Islamic University of Medina. International Journal of Advanced and Applied Sciences, 2022, 9(3), pp. 39â€“45. <https://doi.org/10.21833/ijaas.2022.03.005>.
6. Ghulab Nabi Ahmad, Hira Fatima, Shafiullah, Abdelaziz Salah Saidi, Imadullah. Efficient Medical Diagnosis of Human Heart Diseases using Machine Learning Techniques with and without GridSearchCV. IEEE Access. 8 April 2022. 10.1109/ACCESS.2022.3165792.
7. Amrr SM, Ahmad J, Waheed SA, Sarwar A, Saidi AS and Nabi M (2022) Finite-Time Adaptive Sliding Mode Control of a Power Converter Under Multiple Uncertainties. Front. Energy Res. 10:901606. doi: <https://doi.org/10.3389/fenrg.2022.901606>.
8. Sihem Amara, Sana Toumi, Chokri Ben Salah and Abdelaziz Salah Saidi. Optimization Sizing of an Autonomous PV-Battery Microgrid System. Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering. Accepted 2022.
9. Neeraj Kumar Shukla, Abdulilah M. Mayet, Anshul Vats, Mona Aggarwal, Ram Kumar Raja, Rajesh Verma, M. Abdul Muqeet, ""High speed integrated RF-VLC data communication system: Performance constraints and capacity considerations,"" Physical Communication, Volume 50, February 2022, 101492. ISSN 1874-4907, Impact Factor 1.810. URL: <https://doi.org/10.1016/j.phycom.2021.101492>.
10. Shaifali Ruhil, Umesh Dutta, Vandana Khanna, Neeraj Kumar Shukla, â€œDesign of a 30 Nm Novel 3-D Quad Gate Stacked Nano-Sheets FinFET, Springer Silicon,

02 May 2022, Impact Factor 2.670, Q3. URL: <https://link.springer.com/article/10.1007/s12633-022-01911-4> DOI: <https://doi.org/10.1007/s12633-022-01911-4>

11. R. Punithavathi, R. Thanga Selvi, R. Latha, G. Kadiravan, V. Srikanth, Neeraj Kumar Shukla, et al., "Robust Node Localization with Intrusion Detection for Wireless Sensor Networks" Intelligent Automation and Soft Computing, Tech Science Press (TSI Press), Vol.33, No.1, 2022, pp.143-156. Impact Factor 1.647, Q3. DOI:10.32604/iasc.2022.023344. URL: <https://www.techscience.com/iasc/v33n1/46154>
12. Mayet, A. M., et al. (2022). "Introducing a Precise System for Determining Volume Percentages Independent of Scale Thickness and Type of Flow Regime." Mathematics 10(10): 1770.
13. Mayet, A. M., et al. (2022). "Extraction of Time-Domain Characteristics and Selection of Effective Features Using Correlation Analysis to Increase the Accuracy of Petroleum Fluid Monitoring Systems." Energies 15(6): 1986.
14. Mayet, A. M., et al. (2022). "Applying Data Mining and Artificial Intelligence Techniques for High Precision Measuring of the Two-Phase Flow Characteristics Independent of the Pipe Scale Layer." Electronics 11(3): 459.
15. Shukla, N. K., et al. (2022). "High speed integrated RF-VLC data communication system: Performance constraints and capacity considerations." Physical Communication 50: 101492.
16. Thafasal Ijyas, V. P. and A. M. Mayet (2022). "Electronic circuit implementation of the compartmental models for population dynamics of COVID-19 like epidemics." Sadhana, 47(1): 47
17. Asim, Jamil, Adnan Shahid Khan, Rashad Mahmood Saqib, Johari Abdullah, Zeeshan Ahmad, Shehla Honey, Shehroz Afzal, Malak S. Alqahtani, and Mohamed Abbas. "Blockchain-based Multifactor Authentication for Future 6G Cellular Networks: A Systematic Review." Applied Sciences 12, no. 7 (2022): 3551.
18. Khan, Adnan Shahid, Yasir Javed, Rashad Mahmood Saqib, Zeeshan Ahmad, Johari Abdullah, Kartinah Zen, Irshad Ahmed Abbasi, and Nayeem Ahmad Khan. "Lightweight Multifactor Authentication Scheme for NextGen Cellular Networks." IEEE Access 10 (2022): 31273-31288.
19. Bio-geography Based Optimization Algorithm and Neural Network to Optimize Place and Size of Distributed Generating System in Electrical Distribution.
20. Monji Zaidi, Imen Bouazzi, Mohammed Usman, Mohammed Zubair, Ninni Singh and Vinit Kumar Gunjan "Cooperative Scheme To A-RSSI and Variable Anchor Positions for Sensors Localization in 2D Environments" Hindawi Complexity, Volume 2022, Article ID 5069254, 11 pages <https://doi.org/10.1155/2022/5069254>.
21. Imen Bouazzi, Monji Zaidi, Mohammed Usman, Mohammed Zubair Vinit Kumar Gunjan and Ninni Singh, "Future Trends for Healthcare Monitoring System in Smart Cities Using LoRaWAN-Based WBAN" Hindawi, Mobile Information

Systems. Volume 2022, Article ID 1526021, 12 pages, <https://doi.org/10.1155/2022/1526021>.

22. Monji zaidi, Imen Bouazzi, Mohammed Ibrahim Al-Rayif, Mohammed Zubair, Mohammed Usman, "Low power hardware design and its mathematical modeling for fast-exact geolocalization system in wireless networks, Int J Commun Syst. 2022;e5128, WILEY, DOI: 10.1002/dac.5128"

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1. Mohammed, S.A., Qamar, S., Khan, K.U.R., Sunitha, K.V.N. (2022). Optimizing Memory in Opportunistic Sensor Networks. In: Saini, H.S., Singh, R.K., Tariq Beg, M., Mulaveesala, R., Mahmood, M.R. (eds) Innovations in Electronics and Communication Engineering. Lecture Notes in Networks and Systems, vol 355. Springer, Singapore. https://doi.org/10.1007/978-981-16-8512-5_50. (Link: [Salman \(2022\)](#))
2. Monji Zaidi, Imen Bouazzi, V.P. Thafasal Ijyas, "Fast wsn localization method based on three Anchors and simple geometric technique: Mathematical modelling" 2022 IEEE 9th International Conference on Sciences of Electronics, Technologies of Information and Telecommunications (SETIT), sponsored by IEEE and co-sponsored by the IEEE Tunisia section and the IEEE Tunisia Section Signal processing Chapter.

2022 Books/Chapters

1. Salman Arafath Mohammed, "Security in Ambient Intelligence and Internet of things", Scrivener Publishing (accepted for publication under process).

2022 Patents

1. Neeraj Kumar Shukla, et.al, (India Patent): Smart Health Care System to Monitor CoVid Patients from Home using IoT. Patent Application No. 202241005764. Filed On: 03 Feb. 2022. Published on: 13.02.2022. Status: Published. URL: <https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>
2. Neeraj Kumar Shukla, et al.,(India Patent): PCM Based Thermal Energy Storage System using Parabolic Dish type Solar Collector. Application No. 202241014837. Filing Date: 17 March 2022. Published on: 25.03.2022. Status: Published. URL: <https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>

2021 Journals

1. Aqeel, Sehrish, Adnan Shahid Khan, Zeeshan Ahmad, and Johari Abdullah. "A comprehensive study on DNA based Security scheme Using Deep Learning in Healthcare." EDPACS (2021): 1-17.

2. Khan, Adnan Shahid, Zeeshan Ahmad, Johari Abdullah, and Farhan Ahmad. "A spectrogram image-based network anomaly detection system using deep convolutional neural network." *IEEE Access* 9 (2021): 87079-87093.
3. Zeeshan Ahmad, Adnan Shahid Khan, Kashif Nisar, Iram Haider, Rosilah Hassan, Muhammad Reazul Haque, Seleviawati Tarmizi, and Joel JPC Rodrigues. "Anomaly detection using deep neural network for IoT architecture." *Applied Sciences* 11, no. 15 (2021): 7050.
4. Imen Bouazzi, Monji Zaidi, Mohammed Usman and Mohammed Zubair," A new medium access control mechanism for energy optimization in WSN: traffic control and data priority scheme" *EURASIP Journal on Wireless Communications and Networking*, <https://doi.org/10.1186/s13638-021-01924-4>, (2021) 2021:42
5. Ridha Ouni, Monji Zaidi, Maazen Alsabaan, Wadood Abdul, Amr Alasaad "Mobile geolocation techniques for indoor environment monitoring" *KSII TRANSACTIONS ON INTERNET AND INFORMATION SYSTEMS VOL. 14, NO. 3, Mar. 2021*.
6. A Ben Atitallah, I Abid, A Boudabous, H Loukil "A new hardware architecture of the adaptive vector median filter and validation in a hardware/software environment"

2021 Conferences

1. Gaith Baccouche, Abdelaziz Salah Saidi, Chokri Ben Salah, Saida Makhoulfi and Adnene Haj Hamida. A Comparative Analysis Study of Tunisian and Algerian Grid Codes Relevant to PV Solar Energy Installations. 2021 18th IEEE International Multi-Conference on Systems, Signals and Devices (SSD), 22-25 March 2021, Monastir-Tunisia. 10.1109/SSD52085.2021.9429443.
2. Neeraj, 2nd International Conference on Intelligent Computing Techniques for Smart Energy Systems-2021 (ICTSES-2021) India.
3. Asirbad Mishra, Harshita Rai, Shilpi Birla, Neha Singh, Neeraj Kumar Shukla, "Investigation of Timing Issues of True Single-Phase Clock Circuits for Nanodevices", in the proc. of 2nd International Conference on Intelligent Computing Techniques for Smart Energy Systems-2021 (ICTSES-2021), 1-3 September 2021, Manipal University Jaipur, India.

2021 Books/Chapter

1. Rahul Singh, Syed Muhammad Amr, M. S. Jamil Asghar and Abdelaziz Salah Saidi. *Emerging Trends in Energy Storage Systems and Industrial Applications*. PUBLISHER: Elsevier. Chapter 2: Supervisory Control Strategy for a Customized Solar PV based Microgrid with a Battery Storage System: An Experimental Approach.
2. Chapter 68: Supervisory Control Strategy for a Customized Solar PV based Microgrid with a Battery Storage System: An Experimental Approach, Prabhansu-Emerging Trends in Energy Storage Systems and Industrial Applications. 2021.

3. Electronic Devices, Circuits, and Systems for Biomedical Applications Challenges and Intelligent Approach
4. Shilpi Birla, Neha Singh and N.K. Shukla, “Nanodevices for biomedical applications,” Elsevier-Academic Press: Electronic Devices, Circuits, and Systems for Biomedical Applications Challenges and Intelligent Approach, pp. 47-68, Year 2021 April 25. ISBN: 978-0-323-85172-5. Chapter-3. URL: <https://www.elsevier.com/books/electronic-devices-circuits-and-systems-for-biomedical-applications/tripathi/978-0-323-85172-5>

2021 Patents

1. DESIGN AND IMPLEMENTATION OF MULTIFUNCTIONAL INTERLEAVED INVERTER FOR SOLAR WATER PUMPING SYSTEM. Indian Patent. Advanced Search System. Publication Date: 06/11/2020. Controller General of Patents, Designs and Trademarks, Department of Industrial Policy and Promotion. Ministry of Commerce and Industry. APPLICATION NUMBER: 202011046501.
2. Neeraj Kumar Shukla, Ramkumar Raja, et al, “Detection of formaldehyde in marketed fish using X-Fractal UWB Patch antenna and Radio waves” KSA, India. May 2021. Patent Application No. 202141020546 A. Date of filing of Application: 05/05/2021. Publication Date: 11/06/2021. Publication Number: 24/2021, Status: Published.
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<https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>

S.No	For the year 2022 & 2021	Split Sum	Total
1	Number of Journals	22+6	28
2	Number of Conferences	2+3	5
3	Number of Chapters/Books	1+4	5
4	Number of Patents	2+2	4