

Publications in Journals

1. Abhinav Tomar, Rakesh Rajan Kumar, Inderjeet Gupta, "Decision making for cloud service selection: a novel and hybrid MCDM approach", **Cluster Computing**, Springer, October, 2022. DOI: 10.1007/s10586-022-03793-y.
2. Raj Anwit, Prasanta K. Jana, Abhinav Tomar, "Sustainable and Optimized Data Collection via Mobile Edge Computing for Disjoint Wireless Sensor Networks", **IEEE Transactions on Sustainable Computing**, 2021 (DOI:10.1109/TSUSC.2021.3120003) (SCIE- IF:4.908).
3. Abhinav Tomar, Lalatendu Muduli, Prasanta K. Jana, "A Fuzzy Logic-based On-demand Charging Algorithm for Wireless Rechargeable Sensor Networks with Multiple Chargers", **IEEE Transactions on Mobile Computing**, 2020 (DOI:10.1109/TMC.2020.2990419) (SCIE- IF:5.11).
4. Abhinav Tomar, K. Nitesh, Prasanta K. Jana, "An efficient scheme for trajectory design of mobile chargers in wireless sensor networks", **Wireless Networks**, Springer, 26, 897-912, 2020. DOI: 10.1007/s11276-018-1833-x (SCI- IF:2.66).
5. Abhinav Tomar, Prasanta K. Jana, "A multi-attribute decision making approach for on-demand charging scheduling in wireless rechargeable sensor networks", **Computing**, Springer, 2020 (SCIE- IF:2.04).
6. Abhinav Tomar, Lalatendu Muduli, Prasanta K. Jana, "An efficient scheduling scheme for on-demand mobile charging in wireless rechargeable sensor networks", **Pervasive and Mobile Computing**, Elsevier, 59: 101074, 2019 (SCIE- IF:2.73).
7. R. Anwit, Abhinav Tomar, and P. K. Jana, "Scheme for tour planning of mobile sink in wireless sensor networks", **IET Communications**, DOI: 10.1049/iet-com.2019.0613, 2019 (SCIE- IF:1.66).
8. A. Kaswan, Abhinav Tomar, and P. K. Jana, "An efficient scheduling scheme for mobile charger in on-demand wireless rechargeable sensor networks", **Journal of Network and Computer Applications**, Elsevier, Vol. 114, pp. 123-134, 2018 (SCIE- IF:5.57).
9. N. Jain, Abhinav Tomar, Prasanta K. Jana, "A Novel Scheme for Employee Churn Problem using Multi-Attribute Decision Making Approach and Machine Learning", **Journal of Intelligent Information Systems**, Springer, 2020 (SCIE- IF:1.81).
10. R. Anwit, Abhinav Tomar, P. K. Jana, "Tour Planning for Multiple Mobile Sinks in Wireless Sensor Networks: A Shark Smell Optimization approach", **Applied Soft Computing**, Elsevier, 2020 (SCIE- IF:5.47).
11. S. Priyadarshani, Abhinav Tomar, Prasanta K. Jana, "An Efficient Partial Charging Scheme using Multiple Mobile Chargers in Wireless Rechargeable Sensor Networks", **Ad Hoc Networks**, Elsevier, 2021 (SCIE- IF:3.64).
12. M. Kumar, Abhinav Tomar, Prasanta K. Jana, "Multi-objective Workflow Scheduling Scheme: A Multi-criteria Decision Making Approach", **Journal of Ambient Intelligence and Humanized Computing**, Springer, 2021 (SCIE- IF:4.59).
13. R. Anwit, Abhinav Tomar, Prasanta K. Jana, "Sustainable and Optimized Data Collection via Mobile Edge Computing for Disjoint Wireless Sensor Networks", **IEEE Transactions on Sustainable Computing**, August 2020 SCIE .

14. Rakesh Ranjan Kumar, Abhinav Tomar, Mohammad Shameem, Md. Nasre Alam, "OPT-CLOUD: An Optimal Cloud Service Selection Framework Using QoS Correlation Lens", **Computational Intelligence and Neuroscience**, vol. 2022, Article ID 2019485, 16 pages, 2022. <https://doi.org/10.1155/2022/2019485>

Publications in Conference

1. Riya Goyal and Abhinav Tomar, Optimal and Dynamic Scheduling using Multiple Mobile Chargers in Rechargeable Sensor Networks: An MADM-based Approach, Fourteenth International Conference on Contemporary Computing-2022.
2. R. Piyush and Abhinav Tomar, An Efficient and Delay-Aware Path Construction Approach Using Mobile Sink in Wireless Sensor Network, Metasoft-2022
3. Tomar, Abhinav., & Jana, P. K. (2022). Design of Efficient Algorithms for Mobile Charging in Wireless Sensor Networks. 18th ICDCIT 2022.
4. Abhinav Tomar, and Jana, P. K., "Mobile Charging of Wireless Sensor Networks for Internet of Things: A Multi-Attribute Decision Making Approach". In *International Conference on Distributed Computing and Internet Technology, ICDCIT 2019*, Lecture Notes in Computer Science, vol 11319, pp. 309-324, Springer, Cham.
5. Abhinav Tomar, and Jana, P. K., "Designing energy efficient traveling paths for multiple mobile chargers in wireless rechargeable sensor networks", *Tenth International Conference on Contemporary Computing (IC3)*, 2017, pp. 277-282, IEEE.
6. Abhinav Tomar, R. Anwit and P. K. Jana, "An efficient scheme for on-demand energy replenishment in wireless rechargeable sensor networks", *Proc. of ICACCI 2017*, MIT Manipal, pp. 125-130, IEEE.
7. Abhinav Tomar, Kaswan, A., and Jana, P. K., "On-Demand Energy Provisioning in Wireless Sensor Networks with Capacity-Constrained Mobile Chargers", *Eleventh International Conference on Contemporary Computing (IC3)*, 2018, pp. 1-6, IEEE.
8. Jain, Nishant, Abhinav Tomar, and Prasanta K. Jana. "Novel Framework for Performance Prediction of Small and Medium Scale Enterprises: A Machine Learning Approach", *International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, 2018, pp. 42-47, IEEE.

Book Chapters/Edited Book

1. Titled "*Modified Artificial Fish Swarm Optimization Based Clustering in Wireless Sensor Network*" CRC Press, Taylor & Francis Group edited book titled **Smart Sensor Networks Using AI for Industry 4.0: Applications and New Opportunities**, 2021.

STCs/FDPs/Workshops/Conferences Attended

1. FDP on **Cloud and Fog Computing Platforms for IoT Applications** from December 16, 2020 to December 23, 2020, Department of Computer Science and Engineering (CSE) and E & ICT, NIT Warangal.
2. Online Center for Continuing Education (CCE) Programme on **Soft Computing Techniques for Emerging Applications (SCTEA)** during *October 5-9, 2020*, organized by Department of CSE, NIT Warangal, Warangal - 506004, Telangana, India.
3. ATAL- AICTE Training and Learning Sponsored FDP on **CLOUD COMPUTING** during *September 7-11, 2020*, organized by Vaagdevi College of Engineering, Warangal.
4. TEQIP-III Sponsored Online FDP on **Emerging Technologies: Theory and Applications** during *September 5-10, 2020*, organized by VSSUT Burla, Sambalpur - 768018, Odisha, India.
5. Five-Day Capacity Building Program on **Approaches for Quality Research Paper Writing In High Impact Journals** during *September 2-6, 2020*, organized by IQAC, Rajiv Gandhi (Central) University, Arunachal Pradesh, India.
6. One Week Online Workshop on **Internet of Medical Things: Challenges and Solutions** during *August 17-22, 2020*, organized by Region - IV, Computer Society of India (CSI).
7. One Week Online Virtual FDP on **Emerging Trends in Information Technology** during *July 20-25, 2020*, organized by IITM Janakpuri, New Delhi, India.
8. On-line FDP on **Machine learning and it's applications** during *July 04-08, 2020*, organized by AITAM, Tekkali – 532201, Andhra Pradesh, India.
9. International Workshop cum FDP on **Implementation of Machine Learning, Tensor-Flow using Python and Interfacing IoT Devices** during *June 25-30, 2020*, organized by Synergy Academics and Research, Govt. of India.
10. On-line AICTE ATAL Faculty Development Program on **Blockchain** during *June 15-19, 2020*, organized by University Institute of Engineering and Technology, Kurukshetra University, India
11. On-line AICTE ATAL Faculty Development Program on **Artificial Intelligence** during *May 22-26, 2020*, organized by CSE Dept., NIT Warangal, Telangana, India
12. On-line training program on **Internet of Things (IoT)** during *April 30-May 02, 2020*, organized by MSME, Government of India, Process and Product Development Centre, Agra, India
13. On-line Faculty Development Program on **Curriculum Implementation** during *April 20-24, 2020*, organized by Department of Computer Science & Engineering, NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH SECTOR-26, Chandigarh-160019, India.
14. Faculty Development Program on **Cloud, Fog and Edge Computing** during *April 14-18, 2020*, organized by Department of Computer Science & Engineering, NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH SECTOR-26, Chandigarh-160019, India.

15. Short-Term Course on Recent trends in **Wireless Sensor Networks and Internet of Things** during *January 21-25, 2017*, organized by Department of Computer Science & Engineering, Indian Institute of Technology (ISM), Dhanbad-826004, Jharkhand, India.
16. Short Term Course on **Wireless Sensor Networks: Network Architectures, Protocols and Applications**, from *May 30, 2016 to June 8, 2016*, organized by NIT Warangal, Telangana-506004 under Global Initiative of Academic Networks (GIAN) by Ministry of HRD, India.
17. Faculty Development Program on **Computational Intelligence for Optimization Problems** from *March 28, 2016 to April 1, 2016*, Organized by Calcutta Business School, Kolkata, West Bengal-743503, India.
18. *4th* International Conference on Recent Advances in Information Technology (RAIT), Indian Institute of Technology (ISM), Dhanbad, India, *March 15-17, 2018*.
19. *3rd* International Conference on Recent Advances in Information Technology (RAIT), Indian School of Mines, Dhanbad, India, *March 3-5, 2016*.
20. Conference tutorial in *3rd* IEEE ICCCT during *December 01-05, 2014* Organized by Department of Computer Science & Engineering, MNNIT Allahabad, Allahabad, U.P.-211004, India.

Other Activities

Monitored Project

- Objective Design cost effective business solution with good use of IoT technology and mechanization for sustainable and cooperative agriculture, farming.
- Proposed solution *Multi-purpose Agrobot*: a solution to reduce labour intensity and improve operation efficiency that would be a small contribution to our dedicated farmers of India. To increase the efficiency, the solar power is used and the power output can be increased, hence making the project sustainable.
- My role Project Mentor, Technergize 2.0, IEEE CS, SYP, R-10 India.

Patent

- 2022 Design patent-Virtual reality headset-Application No. 359734-001
(Granted)
- 2022 Design patent-Router-Application No. 359733-001
(Granted)

2020 VOICE SYNTHESIS MECHANISM THROUGH NATURAL LANGUAGE
(Published) PROCESSING FOR VOICE INTERACTIVE ROBOTS
Application No. 202031040931

Session Chairs

1. 10th International Advanced Computing Conference (IACC), IEEE, Goa (5th-6th December 2020).

Reviewer/ Journals

1. IEEE Transactions on Sustainable Computing
2. IEEE Transaction on Vehicular Technology
3. IEEE Transaction on Networks
4. IEEE Access
5. IET Communications
6. IEEE Consumer Electronics Magazine
7. International Journal of Communication Systems
8. IGI Global

Reviewer/ Technical Program Committee

1. 6th International Congress on Information and Communication Technology (ICICT 2021), London, United Kingdom, February 25 - 26, 2021.
2. 2nd International Conference on Artificial Intelligence: Advances and Applications (ICAIAA 2021), 27-28 March 2021.
3. 2nd International conference on intelligent Engineering and management, 28th-30th april 2021.
4. International Conference on Machine learning and Applied Network Technologies (ICM-LANT2020), 20-21 December 2020, CMR Institute of Technology, Hyderabad, India.
5. 6th International Conference on Emerging Applications of Information Technology, 2021, Kolkata, India.
6. International Conference on Innovative Practices in Technology and Management, Amity University, Greater Noida Campus from 17 Feb 2021 to 19 Feb 2021.
7. ICCAKM-2021 (INTERNATIONAL CONFERENCE ON COMPUTATION, AUTOMATION AND KNOWLEDGE MANAGEMENT), Amity University. Dubai, UAE, January 19-21, 2021
8. 10th International Advanced Computing Conference (IACC 2020), Dec. 2020, Taj Vivanta Goa, Panaji, India.
9. Third International Conference on Computational Intelligence in Communications, and Business Analytics (CICBA-2021), January 7-9, 2021, Visva-Bharati University, West Bengal, India.

10. International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications, Mar 28-29, 2021, Hyderabad, India.
11. 2nd International Conference on Inventive Computation and Information Technologies (ICICT) 24-25 September, 2020, Coimbatore, India.
12. Second Edition of the IEEE BOMBAY SECTION SIGNATURE CONFERENCE (IBSSC-2020), December 4-6, 2020.
13. 2nd International Conference on Machine Learning and Intelligent Systems (MLIS2020), Oct. 2020, Seoul, Republic of Korea.
14. 2nd International Conference on Computer Science and Information Technology (ICCSIT 2020), Nov. 2020, Kuala Lumpur, Malaysia.
15. 7th International conference on Artificial intelligence & Machine learning (ICAIML 2020), India.
16. World Conference on Applied Science Engineering & Technology (WCASET).
17. IEEE International Symposium on Sustainable Energy, Signal Processing & Cyber Security (IEEE-iSSSC 2020), GIET University, Gunupur, Odisha, India.
18. 2nd International Conference on Sensor Networks and Signal Processing (SNSP 2019), Nov., 2019, National Dong Hwa University, Hualien, Taiwan.
19. 9th International Conference on Electronics, Communications and Networks, Oct., 2019, Kitakyushu City, Japan.
20. 5th International Conference on Fuzzy Systems and Data Mining (FSDM 2019), Oct., 2019, Kitakyushu International Conference Center, Japan.