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#### GENERAL ARTICLES

- A4. **A.Mukherjee**, S. Goswami, "Visualizing Graphs using PAJEK", PC Quest, Enterprise Solutions. Nov. 2010.
- A3. A. Mukherjee, "Creating VB Macros in MS Word", PC Quest, Developer, Dec. 2010.
- A2. **A. Mukherjee**, "Folder Manipulator in VB 6.0", Electronics for You, ISSN No.: 0013-516x, Sep. 2011.
- A1. N.Pathak, A. Mukherjee, "NANOENGINEER- A Virtual Nanotechnology Lab", PC Quest, Hands On, Apr. 2013

#### Books

- B2. S. Misra, A. Mukherjee, A. Roy, "Introduction to Industrial Internet of Things and Industry 4.0", CRC Press, USA (Forthcoming)
- B1. S. Misra, A. Mukherjee, A. Roy, "Introduction to IoT", Cambridge University Press, UK (In Press)

### Journal Papers

- J16. A. Mukherjee, S. Misra, V.S.P.Chandra, N. S. Raghuwanshi, "ECoR: Energy-Aware Collaborative Routing for Task Offload in Sustainable UAV Swarms", Transactions on Sustainable Computing, IEEE (selected for publication), Feb. 2020. (IF=2.456)
- J15. D. Bhattacharya, S. Misra, N. Pathak, A. Mukherjee, "IDeA: IoT-Based Autonomous Aerial Demarcation and Path-planning for Precision Agriculture", Transactions on IoT, ACM (selected for publication), Jan. 2020.
- J14. S. Misra, A. Mukherjee, "Phantom Networks: The Intangible Shoot-and-Scoot Communication Paradigm For Future Militaries", IEEE Communications Magazine, Feb. 2020. (IF=10.356)
- J13. A. Mukherjee, S. Misra, A. Sukrutha, N. S. Raghuwanshi "Distributed Aerial Processing for IoT-Based Edge UAV Swarms in Smart Farming", Computer Networks (SI), Elsevier, Published- Nov. 2019, DOI: https://doi.org/10.1016/j.comnet.2019.107038. (IF=3.03) Link
- J12. A. Mukherjee, S. Misra, N. S. Raghuwanshi, "A Survey of Unmanned Aerial Sensing Solutions in Precision Agriculture", JNCA, Elsevier, pp.102461, Oct 2019 DOI: 10.1016/j.jnca.2019. 102461 (IF=5.273)
- J11. A. Mukherjee, S. Misra, A. Atrish, "MiND: Mind Networked Device Architecture for Attention-Gated Ambient Assisted Living Systems", IEEE Systems Journal, Accepted- Mar 2019. (IF=4.463)
- J10. A. Mukherjee, S. Misra, V. S. P. Chandra, M. Obaidat, "Resource-Optimized Multi-Armed Bandit Based Offload Path Selection in Edge UAV Swarms", IEEE IoT Journal (Special Issue on Advanced Computational Technologies in Mobile Edge Computing for Internet of Things), Nov. 2018. (IF=9.515)

  Link

- J9. A. Mukherjee, S. Misra, N. S. Raghuwanshi, S. Mitra, "Blind Entity Identification for Agricultural IoT Deployments", *IEEE IoT Journal*, vol.6, no. 2, pp. 3156-3163, Accepted-Oct 2018. (IF=9.515)
- J8. S. Misra, A. Mukherjee, A. Roy, "Knowledge Discovery for Enabling Smart Internet-of-Things: A Survey", Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 8.6 (2018): e1276. (IF=2.541)
  Link
- J7. S. Misra, S. Goswami, C. Taneja, A. Mukherjee, Mohammad Obaidat, "A PKI Adapted Model for Secure Information Dissemination in Industrial Control and Automation 6LoWPANs", *IEEE ACCESS*, vol.3, no., pp.875,889, 2015, DOI: 10.1109/ACCESS.2015.2445817. (IF=4.095)
- J6. S Goswami, S Misra, C Taneja, A. Mukherjee, "Design and Implementation Analysis of a Public Key Infrastructure- enabled Security Framework for Zigbee Sensor Network", INTERNATIONAL JOURNAL OF COMMUNICATION SYSTEMS, Int. J. Commun. Syst. (2014), Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/dac.2893, Nov 2014.
- J5. U. N. Thakur, S. Saha, A. Mukherjee, "A Proposed Architecture for Residue Number System based 1D 5/3 Discrete Wavelet Transform using Filter Bank and Lifting Scheme." *International Journal of Computer Applications*, Vol. 90, No.14, 2014.
- J4. A. Mukherjee, N. Pathak, A. Roy, "Heart Murmur Detection using Fractal Analysis of Phonocardiograph Signals." *International Journal of Computer Applications*, Vol. 88, No.12, 2014.
- J3. A. Roy, A. Mukherjee, "An Analysis of the Viability of using Katz Algorithm in differentiating Normal Heart Sounds from Cardiac Murmurs." *American Journal of Electronics & Communication*, Vol. 1, No.2, pp. 32-36, 2014.
- J2. **A. Mukherjee**, S. Chatterjee, K. Chatpadhyay, K. K. Ghosh, "A comparative study on the accuracy of ecg detection for arrhythmia by different wavelet families." *IEMIJMT*, Vol. 2, No.1, pp. 93-98, 2012.
- J1. S. Goswami, A. Mukherjee, A. Gupta, M. Kharbanda, P. Soni. "Visualization of Relationship among Library Users based on Circulation Data". *Defence Scientific Information and Documentation Centre Journal of Library and Information Technology (DJLIT)*, Vol. 30, No. 2, ISSN No.: 0974-0643. March 2010.

#### **CONFERENCE PAPERS**

- C13. N. Pathak, A. Mukherjee, S. Misra, "Reconfigurable Wearables for an Interoperable Healthcare IoT Framework", IEEE INFOCOM 2020 (selected for oral presentation), Jul 2020, Toronto, Canada.
- C12. S. Misra, P. Deb, N. Pathak, A. Mukherjee, "Blockchain-Enabled SDN for Securing Fog-Based Resource-Constrained IoT", IEEE INFOCOM 2020 Workshop (BlockSecSDN: Blockchain for Secure Software defined Networking in Smart Communities), (selected for oral presentation), Jul 2020, Toronto, Canada.
- C11. P. Deb, A. Mukherjee, S. Misra, A. Jamalipour "SkopEdge: A Traffic-Aware Edge-Based Auscultation Sound Monitor", (selected for oral presentation), IEEE ICC 2020, Jun 2020, Dublin, Ireland.
- C10. S. Misra, A. Mukherjee, A. Rehman, N. S. Raghuwanshi, "ROSE: Random Opportunistic and Selective Exploration for Cooperative Edge Swarm of UAVs", IEEE COMSNET 2020, Bengaluru, Jan 2020, India.

- C9. A. Mukherjee, S. Misra, N. Daw, D. Paul, "Fog-Based Visual Gesture Control and External Stabilization for micro-UAVs", IEEE Wireless Communications and Networking Conference (WCNC), Marrakkeh, Morocco, Apr. 2019.
- C8. A. Mukherjee, N. Pathak, S. Misra, S. Mitra, "Predictive Intra-Edge Packet-Source Mapping in Agricultural Internet of Things", IEEE Workshop on Communication, Computing, and Networking in Cyber Physical Systems, IEEE Globecomm 2018, Abu Dhabi, Dec. 2018.
- C7. A. Mukherjee, S. Misra, N. S. Raghuwanshi, "SPA: A Sense-Predict-Actuate TDMA Latency Reduction Scheme in Networked Quadrotors", IEEE Wireless Communications and Networking Conference (WCNC), Apr. 2018, Barcelona, Spain.
- C6. A. Mukherjee, S. Misra, P. Khandelwal, "R2D2: Rotating-turret 2D-scanning and Deadreckoning for Remotely Operated Rovers over Resource Constrained Network Systems", IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Dec. 2017, Bhubaneshwar, India.
- C5. A. Mukherjee, S. Misra, P. Mangrulkar, Muttukrishnan Rajarajan, and Yogachandran Rahulamathavan, "SmartARM: A Smartphone-based Group Activity Recognition and Monitoring Scheme for Military Applications", IEEE International Conference on Advanced Networks and Telecommuncations Systems (ANTS), Dec. 2017, Bhubaneshwar, India
- C4. S. Misra, A. Mukherjee, D. Pal, S. Dalal, "u-OCEAN: An Underwater Omnidirectional Communication Environment using Acoustic Sensor Nodes", IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Dec. 2017, Bhubaneshwar, India
- C3. S Goswami, S Misra, C Taneja, A. Mukherjee, "Securing Intra-communication in 6LoW-PAN: A PKI Integrated Scheme", IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), 2014, vol., no., pp.1,5, 14-17 Dec. 2014, doi: 10.1109/ANTS.2014.7057265.
- C2. **A. Mukherjee**, K. K. Ghosh, "A Noise Independent Approach to QRS- Complex Detection Using CWT", International Conference on Informatics, Electronics and Vision (ICIEV'13). Dhaka, Bangladesh. 18- 19 May 2013(Digital Object Identifier: 10.1109/ICIEV.2013.6572722), p. 1-5, 2013.
- C1. A. Mukherjee, K. K. Ghosh. "An Efficient Wavelet Analysis for ECG Signal Processing", International Conference on Informatics, Electronics and Vision (ICIEV'12). Dhaka, Bangladesh. 18- 19 May 2012, IEEE Xplore (Digital Object Identifier: 10.1109/ICIEV.2012.6317 419), p. 411-415, 2012.