

CURRICULUM VITAE

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| Name | Sk Babul Akhtar |  |
| Qualification | M. Tech in Electronics and Telecommunication Engineering from Jadavpur University B. Tech in Applied Instrumentation and Electronics from Academy of Technology | |
| Designation, Department, and School | Assistant Professor, Dept. of Electronics and Communication Engineering (ECE), School of Engineering | |
| Subjects Taught | Network Theory, Industrial Automation and Control, Digital Electronics, Computer Networks, Signals and Systems, Analog Electronics, Computer Architecture, Data Structure and Algorithm, Programming in C, Object Oriented Programming with Java, Python | |
| Research Interest | Kalman filter, Precise Point Positioning of LEO satellites, Object Tracking, Internet of Things (IoT), | |
| Experience | 07/2023 to Current – Assistant Professor, Dept. of ECE Swami Vivekananda University 03/2022 to 06/2023 – JRF on an ISRO Respond Project 07/2021 to 10/2021 – Systems Engineer, Infosys 06/2019 to 09/2020 – Assistant Systems Engineer, TCS | |
| Publications | S.B. Akhtar. (2023). A comprehensive approach to accurate object tracking in one and two dimensions using Kalman Filter. In S. Adhikary, D. Mondal, & D. Chakraborty (Eds.), <i>New Developments in Electronics</i> . ISBN: 978-93-6039-440-0. S. B. Akhtar, S. Dhabal and P. Venkateswaran, "Kalman Filter based Optimized Object Tracker with Auto-tuning of Process Noise Covariance Parameter and Performance Verification," 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT), Delhi, India, 2023, pp. 1-6, doi: 10.1109/ICCCNT56998.2023.10307617. Akhtar, S. B. (2024). Optimizing object tracking precision through extended Kalman filter dynamics: A comprehensive investigation and performance evaluation. In <i>Advances in Computational Solutions Integrative Approaches and Applications</i> . ISBN: 978-93-5834-625-1 | |

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| | <p>Akhtar, S. B. (2024). Modelling error factors in GNSS observations for precise point positioning and accurate position estimation of low Earth orbit satellites. In <i>Advances in Computational Solutions Integrative Approaches and Applications</i>. ISBN: 978-93-5834-625-1</p> <p>Akhtar, S. B. (2024). Enhanced performance in multiple object tracking: Kalman filter integration with Hungarian algorithm and RMS index optimization. In <i>Advances in Computational Solutions Integrative Approaches and Applications</i>. ISBN: 978-93-5834-625-1</p> <p>Akhtar, S. B. (2024). Development of an Arduino-based smart home security system with multi-sensor integration. In <i>Computational techniques in modern engineering research</i>. ISBN: 978-93-6233-525-8</p> <p>Akhtar, S. B. (2024). Enhanced measurement models for LEO satellites: Addressing bias, elevation errors, and carrier ambiguity. In <i>Computational techniques in modern engineering research</i>. ISBN: 978-93-6233-525-8</p> <p>Akhtar, S. B., et al. (2024). Improving tracking accuracy: Fixed interval smoothing applied to Kalman filter estimates. In <i>Computational techniques in modern engineering research</i>. ISBN: 978-93-6233-525-8</p> <p>Akhtar, S. B. (2024). Kalman filter-based multiple object tracking using Hungarian algorithm and performance tuning using RMS index. In <i>Recent Advancements in Computational Intelligence and Design Engineering</i>. ISBN: 978-10-3298-036-2</p> <p>Mondal, D., Roy, T. S., Akhtar, S. B., Sannyashi, T. S., & Adhikary, S. (2024). Advancements and applications of IoT-based smart traffic control systems: A comprehensive review. In <i>Computational techniques in modern engineering research</i> (pp. 131-137). https://doi.org/10.62906/bs.book.210</p> <p>Mondal, D., Roy, T. S., Akhtar, S. B., Sannyashi, T. S., & Adhikary, S. (2024). ECIS-based cell growth monitoring: A comprehensive review. In <i>Computational techniques in modern engineering research</i> (pp. 139-145). https://doi.org/10.62906/bs.book.210</p> <p>Adhikary, S., Roy, T. S., Akhtar, S. B., Sannyashi, T. S., & Mondal, D. (2024). Prediction of kidney disease using machine learning algorithms: A systematic review. In <i>Computational techniques in modern engineering research</i> (pp. 185-191). https://doi.org/10.62906/bs.book.210</p> |
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| | Mondal, D., Adhikary, S., Roy, T. S., Akhtar, S. B., & Sannyashi, T. S. (2024). Non-invasive glucose monitoring: A comprehensive review. In Computational techniques in modern engineering research (pp. 155-162). https://doi.org/10.62906/bs.book.210 |
| Other salient features | Developed an issue-raising application for the internal project team in TCS. Secured AIR of 1126 in GATE. |
| Symposium/Workshop/Conference/Seminar/Webinar | Workshops conducted: 01 FDPs attended: 04 |
| Contact | Phone: +91 9830675247 Email: babula@svu.ac.in , babul.akhtar322@gmail.com |