

Research Publications in Journals:

- 1.> Prabhat Chandra Shrivastava, Prashant Kumar, **Manish Tiwari** and Amit Dhawan, "Efficient Architecture for the Realization of 2-D Adaptive FIR Filters Using Distributive Arithmetic," *Circuit Systems and Signal Processing*, Vol. 40, 2021, pp. 1458 – 1478, doi: 10.1007/s00034-020-01539-y.
- 2.> A. K. Singh, A. Dhawan, **M. Tiwari**, "Delay-dependent robust optimal H_{∞} control for uncertain 2-D discrete systems described by the general model with both state and input delays," 2020, *International Journal of Digital Signals and Smart Systems*, Article in press.
- 3.> Prashant Kumar, Prabhat Chandra Shrivastava, **Manish Tiwari** and Ganga Ram Mishra, "High Throughput, Area-Efficient Architecture of 2-D Block FIR Filter Using Distributive Arithmetic Algorithm," *Circuit Systems and Signal Processing*, Vol. 38 (3), 2019, pp. 1099 – 1113, doi: 10.1007/s00034-018-0897-2.
- 4.> Akshata Tandon, Amit Dhawan and **Manish Tiwari**, "Optimal Guaranteed Cost Control of 2-D Discrete State-Delayed Systems Described by the Roesser Model via Memory State Feed Back," *Transactions of the Institute of Measurement and Control*, Vol. 41 (1), 2019, pp. 285 – 294, doi: 10.1177/0142331218754623.
- 5.> Prashant Kumar, Prabhat Chandra Shrivastava, **Manish Tiwari** and Amit Dhawan, "ASIC Implementation of Area Efficient, High Throughput 2-D IIR filter using Distributive Arithmetic," *Circuit Systems and Signal Processing*, Vol. 37 (7), 2018, pp. 2934 – 2957, doi: 10.1007/s00034-017-0698-z.
- 6.> Abhay Vidyarthi, **Manish Tiwari** and Amit Dhawan, "Robust Optimal H-Inf Control for 2-D Discrete Systems Using Asymmetric Lyapunov Matrix," *Circuit Systems and Signal Processing*, Vol. 36 (10), 2017, pp. 3901 – 3918, doi: 10.1007/s00034-017-0495-8.
- 7.> Prabhat Chandra Srivastava, Prashant Kumar and **Manish Tiwari**, "Hardware Realization of 2-D General Model State Space Systems," *International Journal of Engineering and Technology (IJET)*, Vol. 9 (5), 2017, pp. 3659 – 3668.
- 8.> Abhay Vidyarthi and **Manish Tiwari**, "LMI Approach to Guaranteed Cost Control for Uncertain 2-D Discrete Shift Delayed Systems described by the General Model," *HCTL Open International Journal of Technology Innovations and Research (IJTIR)*, Vol. 18 (1), 2016, pp. 1 – 15.
- 9.> **Manish Tiwari** and Amit Dhawan, "Optimal Guaranteed Cost Control of Uncertain 2-D Discrete Systems with Both Shift-Delays and Input Delays via Memory State Feedback," *Transactions of the Institute of Measurement and Control*, Vol. 35 (4), 2013, pp. 491 – 402.
- 10.> Amit Kumar Pandey, Jayant Kumar Tiwari, Ram Awadh Mishra, Rajendra Kumar Nagaria, **Manish Tiwari**, "Design of New Low Leakage Power Domino XOR Circuit," *International Journal of Computer Applications*, Vol. 65, 2013, pp. 0975 – 8887.
- 11.> **Manish Tiwari** and Amit Dhawan, "An LMI Approach to Optimal Guaranteed Cost Control of Uncertain 2-D Discrete Shift-Delayed Systems via Memory State Feedback," *Circuit Systems and Signal Processing*, Vol. 31 (5), 2012, pp. 1745 – 1764.
- 12.> **Manish Tiwari** and Amit Dhawan, "Comment on "Robust Guaranteed Cost Control for a Class of Two-Dimensional Discrete Systems with Shift-Delays"," *Multidimensional Systems and Signal Processing*, Vol. 23 (3), 2012, pp. 415 – 419.
- 13.> **Manish Tiwari** and Amit Dhawan, "Robust Suboptimal Guaranteed Cost Control for 2-D Discrete Systems Described by Fornasini-Marchesini First Model," *Journal of Signal and Information Processing*, Vol. 3, 2012, pp. 252 – 258.
- 14.> **Manish Tiwari** and Amit Dhawan, "A Survey on Stability of 2-D Discrete Systems Described by Fornasini-Marchesini Second Model," *Circuits and Systems*, Vol. 3 (1), 2012, pp. 17 – 22.

Research Publications Seminar/Conferences:

- 1.> Sanjiv Kumar Gupta, Amit Dhawan, **Manish Tiwari**, "Design of 15-4 Compressor for DSP Applications," in *Proceeding of the 3rd International Conference on VLSI Communication and Signal Processing (VCAS-2020)*, Held at MNNIT Allahabad (09 – 11, Oct' 2020).
- 2.> Akhilesh Kumar Ravat, Amit Dhawan, **Manish Tiwari**, "Preview Control for Discrete Time Control Systems," in *Proceeding of the 3rd International Conference on VLSI Communication and Signal Processing (VCAS-2020)*, Held at MNNIT Allahabad (09 – 11, Oct' 2020).
- 3.> Prabhat Chandra Shrivastava, Prashant Kumar, **Manish Tiwari**, Amit Dhawan, "A Survey on the Hardware Realization of 2-D State Space Filtering," in *Proceeding of the International Conference on Emerging Trends in Computing and Communication Technologies (ICETCCT-2017, IEEE Conference Record:42896)*, Held at Graphic Era Hill University, Dehradun (Nov' 2017).
- 4.> Vaibhav Varshney, **Manish Tiwari**, "Realization of an FIR Filter using ATMEGA32 Microcontroller," in *Proceeding of the International Conference on Emerging Trends in Computing and Communication Technologies (ICETCCT-2017, IEEE Conference Record:42896)*, Held at Graphic Era Hill University, Dehradun (Nov' 2017).
- 5.> Prabhat Chandra Shrivastava, Prashant Kumar, **Manish Tiwari**, Amit Dhawan, "A Novel Approach for Low Voltage, Low Power Deep Sub-Threshold 5-T SRAM Cell," in *Proceeding of the International Conference on Emerging Trends in Computing and Communication Technologies (ICETCCT-2017, IEEE Conference Record:42896)*, Held at Graphic Era Hill University, Dehradun (Nov' 2017).
- 6.> Amrita Tiwari, Prashant Kumar and **Manish Tiwari**, "High Throughput Adaptive Block FIR Filter using Distributed Arithmetic," *India International Conference on Information processing (IICIP 2016, IEEE Conference Record:37817)*, held at DTU Delhi, 2016, pp. 1 – 6.
- 7.> Rafik Ahmad and **Manish Tiwari**, "Spectral Containment and Performance Comparison of Constant Envelope OFDM-PM and Standard OFDM," *International Symposium on Computer Engineering & Technology (ISCET 2010)*, held at RIMT – Institute of Engineering & Technology Mandi Gobindgarh, Punjab (Mar' 2010).
- 8.> **Manish Tiwari** and Amit Dhawan, "A Survey on Stability of 2-D Discrete Systems Described by Fornasini-Marchesini First Model," *International Conference on Power Control & Embedded Systems (ICPCES 2010)*, held at MNNIT Allahabad (Dec' 2010).
- 9.> Rafik Ahmad and **Manish Tiwari**, "Performance Analysis of Phase Modulated Constant Envelope OFDM-PM in AWGN Channel," *National Conference on Advancement & Future Trends in VLSI Design & Embedded System*, held at Gayan Ganga Institute of Technology & Science, Jabalpur (Feb' 2010).
- 10.> Rafik Ahmad and **Manish Tiwari**, "OFDM PAPR Reduction Techniques for Wireless Applications: A Survey," *National Seminar on Mobile Communication & VLSI Design*, held at Shambhunath Institute of Engineering & Technology, Allahabad (Jan' 2010).
- 11.> A.K. Singh and **Manish Tiwari**, "ATM: Congestion Control & Avoidance," *International conference on Wireless Communication & Sensor Network (WCSN 2005)*, held at IIIT Allahabad (Mar' 2005).
- 12.> A.K. Singh and **Manish Tiwari**, "ATM: A Definite Edge Technology," *National conference on Broadband Integrated Digital System and Networks (B-ISDN 2005)*, held at NIEC Delhi (Mar' 2005).

Books Published:

- 1.> Digital Principles: Foundation of Circuit Design & Applications, 2/e 2014 (1/e 2005), published by New Age International.
- 2.> Digital Principles: Switching Theory, 2/e 2007 (1/e 2006), published by New Age International.

Book Chapters Published:

- 1.> A. K. Ravat, Amit Dhawan, **Manish Tiwari**, " *LMI and YALMIP: Modelling and Optimization Toolbox in MATLAB*," Advances in VLSI, Communication and Signal Processing, *Lecture Notes in Electrical Engineering* (Springer), Vol. 683, 2021, pp. 507-515, https://doi.org/10.1007/978-981-15-6840-4_41.
- 2.> Prabhat Chandra Shrivastava, Prashant Kumar, **Manish Tiwari**, Amit Dhawan, "A brief Survey on Hardware Realization of Two-Dimensional Adaptive Filters," Advances in VLSI, Communication and Signal Processing, *Lecture Notes in Electrical Engineering* (Springer), Vol. 587, 2020, pp. 787-796.
- 3.> Abhay Vidyarthi, **Manish Tiwari**, "A Survey on H_{∞} Control Techniques," Advances in VLSI, Communication and Signal Processing, *Lecture Notes in Electrical Engineering* (Springer), Vol. 587, 2020, pp. 797-804.
- 4.> Prashant Kumar, Prabhat Chandra Shrivastava, **Manish Tiwari**, Amit Dhawan, "Realization of Efficient Architecture for Digital Filters: A Survey," Advances in VLSI, Communication and Signal Processing, *Lecture Notes in Electrical Engineering* (Springer), Vol. 587, 2020, pp. 861-882.
- 5.> A. K. Ravat, Amit Dhawan, **Manish Tiwari**, "Noise Cancelation using Adaptive Filter," Advances in VLSI, Communication and Signal Processing, *Lecture Notes in Electrical Engineering* (Springer), Vol. 587, 2020, pp. 981-990.