

## **Publications of Dr Sudarshan Patilkulkarni**

**Published e-Book** in Kannada language on Signals, Systems and Control Sept 2020

[https://play.google.com/store/books/details?id=wBf-DwAAQBAJ&rdid=book-wBf-DwAAQBAJ&rdot=1&source=gbs\\_vpt\\_read&pcampaignid=books\\_booksearch\\_viewport](https://play.google.com/store/books/details?id=wBf-DwAAQBAJ&rdid=book-wBf-DwAAQBAJ&rdot=1&source=gbs_vpt_read&pcampaignid=books_booksearch_viewport)

**Ph D Thesis:** Stability Analysis of Jump Linear Systems Driven By Finite State Machine with Markovian Inputs (2004).

## **International Journals**

[1] **R. Shashidhar, Milan S. Kumar, Aruna Kumari, R. Santosh Kumar, S. Patilkulkarni**, “Novel Approach for Steganography to Camouflage Digital Information Using Least Significant Bit”, Computational Intelligence in Pattern Recognition. Advances in Intelligent Systems and Computing, vol 1349. Springer, Singapore, Sept, 2021, pp 551-562.

### **Aug 2020 - July 2021:**

[2] R. Shashidhar, S., Patilkulkarni, S. Visual speech recognition for small scale dataset using VGG16 convolution neural network. *Multimed Tools Appl* **80**, 28941–28952 (2021)

[3] Mohith K., Patilkulkarni S., Kollaparti N., “Comparative Analysis of Different Control Techniques for Six-Phase PMSM as an Application to HEV”. In: K V S., Rao K. (eds) Smart Sensors Measurements and Instrumentation. Lecture Notes in Electrical Engineering, vol 750. Springer, Singapore, May 2021, pp-93-108.

### **Aug 2019 - July 2020:**

[4] **S. S. Divakara, S Patilkulkarni, CP Raj**, “Novel DWT/IDWT Architecture for 3D with Nine Stage 2D Parallel Processing using Split Distributed Arithmetic”, International Journal of Image and Graphics, Vol 20 (3), July, 2020, page 2050017

### **Aug 2018-July 2019:**

[5] S. S. Gokhale, Yathisha L., S. Patilkulkarni, “LQR Based Optimal Control Techniques As Applied to Air Path of Diesel Engines”, International Journal of Recent Technology and Engineering, Vol 8 (1C), May 2019, pp149-157 (Indexed in SCOPUS)

### **International Journals Aug 2017-July 2018:**

- [6] L. Yathisha, S. Patilkulkarni, "LQR and LQG Based Optimal Switching Techniques for PSS & UPFC in Power Systems", International Journal of Control Theory & Technology, Springer, Vol , 16(1), 2018. (IF 0.957, H-index 14) (Indexed in SCOPUS)
- [7] S. Divakara, S. Patilkulkarni, C. Prasanna Raj, "*High Speed Area Optimized Hybrid DA Architecture for 2D-DTCWT*".", International Journal of Image & Graphics, World Scientific, Vol 18 (1), 2018, pp 1850041-18500421 (IF 0.16) (Indexed in SCOPUS)
- [8] S. Divakara, S PatilKulkarni, C Prasanna Raj, "Highspeed modular systolic array based DTCWT with parallel processing architecture for 2d image transformation on FPGA", International Journal of Wavelets Multiresolution and Image Processing, World Scientific, Vol 15(5), September, 2017. <http://www.worldscientific.com/doi/abs/10.1142/S0219691317500473> (Indexed in SCOPUS)

### **International Journals Aug 2016-July 2017:**

- [9] L. Yathisha, S. Patilkulkarni, "Optimal Switched Feedback Controller Design for the Simultaneous Coordinated Design of UPFC and PSS in Power System", Journal of Electrical Engineering, POLITEHNICA, RO, Vol 16, Issue 4, 2016. (Indexed in SCOPUS)

### **Conference Publications**

#### **International Conference Aug 2020- July 2021**

- [1] S Patilkulkarni, Rahul Mishra, S Bharath, KJ Vindhya, IN Niranjana, BR Prajwal, "Programmable Delay and Variable Bit Rate Enabled Video Streaming using C++", IEEE International Conference on Advances in Electronics, Computers and Communications (ICAIECC), Dec 2020.
- [2] R Shashidhar, S Patilkulkarni, SB Puneeth, "Audio Visual Speech Recognition using Feed Forward Neural Network Architecture", IEEE International Conference for Innovation in Technology (INOCOT), Nov 2020
- [3] Mohith K, "Comparative Analysis of Different Control Techniques for Six Phase PMSM as an Application to HEV", 'XVII Control Instrumentation System Conference (CISCON), Manipal 2020, Smart Sensors Measurements and Instrumentation, LNEE, Springer, Vol 750, May 2021.

#### **International Conference August 2018-July 2019**

- [4] Arshad Javed, Varun G P, S. Patilkulkarni, "Autonomous Service Robot", International Conference on Advances in Robotics (AIR 2019), IIT Madras, Chennai, INDIA
- [5] Shashidhar S Gokhale, Sudashan S Patil Kulkarni and Yathisha L, "Performance Improvement of Air Path Dynamics In Diesel Engines Using LQR/LQG Optimal and Switching Control Techniques", Second International Conference on Emerging trends in Engineering, Technology and Management (ICETEM-2019)

[6] Shashidhar S Gokhale, Yathisha L and Sudashan S Patil Kulkarni, "LQR Based Optimal Control Techniques As Applied To Air Path of Diesel Engines", Second International Conference on Emerging Trends In Science and Technologies For Engineering Systems (ICETSE-2019)

#### **International Conference August 2016- January 2017**

- [7] Yathisha L, Khourosh Davoodi, S. Patilkulkarni, "Optimal switching control strategy for UPFC for wide range of operating conditions in power system", Indian Control Conference (IEEE CSS), IIT Gowhati, Jan 2017, INDIA
- [8] Rishira A., Abhishek J., S. Patilkulkarni, Veeramanju K. T., "Design and development of controller for bosch 4.2oxygen sensor using dSPACE tools, 2017 International Conference on Electrical, Electronics, Communication, Computer, and Optimization Techniques (ICEECCOT), Mysore, INDIA
- [9] Sabeel Irshad, S. Patilkulkarni, "Observer Based Speed Control of BLDC Motors without Position Sensors", International Conference on Current Research and Applications in Electrical Science", ICCRAES, PDACEK, Karnataka, October 2016.

#### **Previous Publications (before August 2016)**

- [10] Khourosh D and S Patil Kulkarni, "Hybrid Modeling and Control of Power Systems with PSS Operating over Wide Range of Operating Conditions", IEEE International Conference on Power Systems (ICPS), March 2016, DOI: 978-1-5090-0128.
- [11] L. Yathisha, S. Patilkulkarni, "Application and Control of Switching Algorithms for Power System Stabilizer", International Conference on Instrumentation and Control, (COEP, IEEE), Pune, 2015.
- [12] Aniruddha Yajurvedi, S. Patilkulkarni, "An Adaptive Image Steganography Algorithm Using Successive Pixel Difference Embedding and Integer Wavelet Transform", Proceedings of the Fourth International Conference on Signal and Image Processing 2012 (ICSIP 2012), Springer Lecture Notes in Electrical Engineering Volume 221, 2013, pp 203-212.
- [13] Dr. Sudarshan Patil Kulkarni, Abhijit Damle, A.R. Shodan, Suhas K Kashyap, V. Suhas and N. Vivek, "Observer Based Controller Model for Maglev Systems Using dSPACE DS1104®", Proceedings of IX Control Instrumentation System Conference 2012, Manipal, India, Nov 2012.
- [14] C.M.Patil and Sudarshan Patilkulkarni "An Approach to Enhance Security Environment Based on SIFT Feature extraction and Matching to Iris Recognition" in the Proceedings of International conference on Recent Trends in Business Administration and Information Processing BAIP2010, Trivandrum, on 26th & 27th Mar 2010,pp 527-530. BAIP 2010, CCIS 70(Springer), pp. 527–530, 2010.
- [15] C.M.Patil, Sudarshan Patilkulkarni "A Comparative Study of Feature extraction Approaches for an Efficient Iris recognition System" in the Proceedings of International conference on Recent Trends in Business Administration and Information Processing BAIP2010, Trivandrum, on 26th & 27th Mar 2010,pp 411-416. BAIP 2010, CCIS 70 (Springer), pp. 411–416, 2010

- [16] C.M.Patil, Sudarshan Patilkulkarni “ *An Efficient Process of Recognition of Human iris based on Contourlet Transforms*” in the proceedings of International Conference on Exhibition and Biometric Technology ICEBT 2010,(ELSEVIER)Coimbatore on 3<sup>rd</sup> &4<sup>th</sup> Sept 2010.,pp121-126, 2010
- [17] H. C. Vijaylakshmi, Sudarshan Patilkulkarni , “*Face Detection in Skin-Toned Images Using Edge Detection and Feature Extraction using R and G Channels through Wavelet Approximations*”, 3<sup>rd</sup>International Conference on Machine Vision (IACSIT and IEEE) at Hongkong, December 2010
- [18] H. C. Vijaylakshmi, Sudarshan Patilkulkarni, “*Face Detection For Skintone Images Using Wavelet and Texture Features*” IEEE-ICACCT-2010, at Panipat, Page Part 370-374.
- [19] H C VijayLakshmi, PatilKulakarni S., “*Face Detection and Localization in Skin Toned Color Images Using Wavelet and Edge Detection Techniques*”,DOI: 978-0-7695-4201-0/10 \$26.00 © 2010 IEEE DOI 10.1109/ARTCom.2010.34 Page 231-234. International Conference on Advances in Recent Technologies in Communication and Computing 2604-7/06
- [20] L. Yatisha , S. Patilkulkarni, R. S. Anandamurthy, “*Hybrid Modelling and Switching Algorithms for FACTS Based Controllers*”, International Conference on Systems Dynamics and Control, ICSDC August 2010, Manipal, INDIA.
- [21] S. Patilkulkarni, H. Herencia-Zapana, W. S. Gray and O. R. González, “*On the Stability of Jump-Linear Systems Driven by Finite-State Machines with Markovian Inputs*”, Proc. 2004 American Control Conference, Boston, MA, 2004, Vol 3, pp. 2534-2539
- [22] W. S. Gray, S. Patilkulkarni and O. R. González, “*Stochastic Stability of a Recoverable Computer Control System Modeled as a finite-state Machine*”, Proc. 2003 American Control Conference, Denver, CO, 2003, pp.2240-2245.
- [23] W. S. Gray, S. Patilkulkarni and O. R. González, “*Towards Hybrid Models of Recoverable Computer Control Systems*”, Proc. 21<sup>st</sup>Digital Avionics Systems Conference, Irvine, CA, 2002, pp.13.C.2.1-13.C.2.8.
- [24] O. R. González, W. S. Gray, A. Tejada and S. Patilkulkarni, “*Stability Analysis of Electromagnetic Interference Upset Recovery Methods*”, Proc. 40<sup>th</sup>IEEE Conference on Decision and Control, Orlando, FL, 2001, pp. 4134-4139.
- [25] O. R. González, W. S. Gray, A. Tejada and S. Patilkulkarni, “*Stability Analysis For Upset Recovery Methods For Electromagnetic Interference*”, Proc. 20<sup>th</sup>Digital Avionics Systems Conference, 2001, Daytona, FL, pp.1.C.4.1-1.C.4.9.
- [26] O. R. González, W. S. Gray and S. Patilkulkarni, “*Analysis of Memory Bit Errors Induced by Electromagnetic Interference in Closed Loop Digital Flight Control Systems*”, Proc.19<sup>th</sup>Digital Avionics Systems Conference, 2000, Philedelphia, PA, pp. 3.C.5.1-3.C.5.9.
- [27] W. S. Gray, O. R. González and S. Patilkulkarni, “*Stability of Control Systems Subject to Jump Linear Random Perturbations*”, Proc. 39<sup>th</sup>IEEE Conference on Decision and Control, 2000, Sydney, Australia, pp. 1154-1159.