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**Research Publications: Paper published in National and International Journals:**

1. Kalpesh Pathak, **Anil Markana** and Nishant Parikh, Optimal Control of CSTR, Nirma University Journal of Engineering and Technology, Vol.1, No.2, July-Dec- 2010.
2. *Ankit K. Shah, **Markana Anilkumar**, Nishant Parikh*, Performance analysis of IMC based PID controller tuning on approximated process model, Nirma University Journal of Engineering and Technology, Vol.1, No.2, July-Dec- 2010.
3. Abhimanyu Kumar Yadav, Vishal Mehra, **Anil Markana** and Makarand Lokhande, Paralleled DC Boost Converters with Feedback Control using PSO Optimization Technique for Photovoltaic Modul Application, in International Journal of Computer Applications (IJCA) December 2013.

**Papers presented in National and International Conferences:**

1. **A. T. Markana**, N. N. Parikh, Ankit Shah, "RST controller design for ramp and sinusoidal set-point trajectories using Aryabhata identity", International Conference on signals systems and automation, GCET, Vallabh Vidyanagar, Dec. 2009.
2. **A. T. Markana**, N. N. Parikh, Vishnuvardhana, "Adaptive control of a coupled tank system", NVSC, IEEE (Gujarat Section), April 19-20, 2008 at ADIT Engg. College, Vidyanagar, Gujarat, India.
3. N. N. Parikh, **A. T. Markana**, Harshil Raval, "Microcontroller based digital PI controller", NVSC, IEEE (Gujarat Section), April 19-20, 2008 at ADIT Engg. College, Vidyanagar, Gujarat, India.
4. N. N. Parikh, **A. T. Markana**, Vishnuvardhana, "Adaptive PI controller based on direct synthesis", REMES, IEEE (Gujarat Section), September 12-13, 2008 at Changa Engg. College, Anand, Gujarat, India.
5. **A. T. Markana**, N. N. Parikh, Ankit Shah, "Polynomial based design for generalized predictive control", REMES, IEEE (Gujarat Section), September 12-13, 2008 at Changa Engg. College, Anand, Gujarat, India.
6. **A. T. Markana**, N. N. Parikh, Ankit Shah, "2-DOF Controller Design for Polynomial and Sinewave Reference Signals using Auxiliary Aryabhata's Identity Equation", International Conference on Instrumentation (ICI-2009), Pune, Jan, 2010.

7. Gaurav Hinduja **A. T. Markana**, N. N. Parikh, “Control of Multivariable Quadruple-Tank System A Case Study”, International Conference on Instrumentation (ICI-2009),Pune, Jan, 2010.
8. **A. T. Markana**, N. Padhiyar, Kannan Moudgalya “Lexicographic Optimization based Model Predictive Control- Application to Quadruple Tank Process”, International Conference on Modeling, Optimization and Computing: ICMOC 2010.
9. Kalpesh Pathak, **A.T. Markana**, Nishant Parikh “ Optimal Control of CSTR”, International Conference on current trends in technology, NUiCON-2010, Nirma University, Ahmadabad, Best paper awarded,Date:10-12-2010.
10. Ankit Shah, **A.T. Markana**, Nishant Parikh “ Performance Analysis of IMC based PID Controller tuning ”, International Conference on current trends in technology, NUiCON-2010, Nirma University, Ahmadabad, Date:10-12-2010.
11. **A. T. Markana**, N. Padhiyar, Kannan Moudgalya “Prioritized Model Predictive Control for Quadruple Tank System”, International Conference on Sustainable Technologies for Energy and Environment in Process Industries & Indo-US joint International Conference on Energy and Environment organized by Indian Institute of Chemical Engineers, Doaba Regional Centre and NIT Jalandhar , 27<sup>th</sup> Dec to 30<sup>th</sup> Dec. 2012
12. Naveen Velmurugan, N. Parikh, **A.T.Markana**, “Stick slip mitigation of drill string using model reduction and model based LQG controller”, presented in the IAS Annual meeting, held at Orlando, USA organized by IEEE Industry Applications Society on 6<sup>th</sup> Octo. To 10<sup>th</sup> Octo 2013.