INTERNATIONAL JOURNAL

2014-2015

1. K Dhanalakshmi, **M. Umapathy** and D Ezhilarasi, 'Sliding Mode Control of SMA Actuated Structures for Vibration Control', *International Journal of Modelling, Identification and Control*, 23(3), 2015.

2013-2014

1. A Rami Reddy, **M Umapathy**, D Ezhilarasi , G Uma, Improved energy harvesting from vibration by introducing cavity in a cantilever beam, ***Accepted*** for publication in the Journal of Vibration and Control, Sep 2014*.

2. K Dhanalakshmi, **M. Umapathy** and D Ezhilarasi, 'SMA Actuated Structural Control with Discrete Time Sliding Mode using Multirate Output Feedback', Journal of Vibration and Control, July 2014 Published Online DOI: 1077546314536916.

3. J. Sivaraman, G. Uma, S. Venkatesan, **M. Umapathy**, M.S. Ravi, Unmasking of atrial repolarization waves using modified limb lead system, Anatolian journal of Cardiology, "In Press", 2014.

4. J. Sivaraman, G. Uma, S.Venkatesan, **M. Umapathy**, N. Keshavkumar, A study on atrial P and Ta wave morphology: An approach using P wave signal averaging method, Journal of Medical Imaging and Health Informatics, Vol. 4, 675-680, 2014.

5. J. Sivaraman, G. Uma, S. Venkatesan, **M. Umapathy**, V.E. Dhandapani, Normal limits of ECG measurements related to atrial activity using a modified limb lead system, Anatolian journal of Cardiology, Published online, February 2014.

6. S. Harihara Krishnan, D. Ezhilarasi, G. Uma, **M. Umapathy**, Pyroelectric based solar and wind energy harvesting system, IEEE Transactions on Sustainable Energy, Vol.5, No.1, 2014*.

7. Rami Reddy, M. Umapathy, D. Ezhilarasi, **G. Uma**, Improved energy harvesting from vibration by introducing cavity in a cantilever beam, *Accepted* for publication in the Journal of Vibration and Control.

8. J. Sivaraman, **G. Uma**, S. Venkatesan, M. Umapathy, M. S. Ravi, Unmasking of atrial repolarization waves using modified limb lead system, Anatolian Journal of Cardiology (Accepted For Publication)

9. J. Sivaraman, **G. Uma**, S.Venkatesan, M. Umapathy, N. Keshavkumar, A study on atrial Ta wave morphology: An approach using P wave signal averaging method, Journal of Medical Imaging and Health Informatics, Vol. 4, 675-680.

10. J. Sivaraman, **G. Uma**, S. Venkatesan, M. Umapathy, V. E. Dhandapani, Normal limits of ECG measurements related to atrial activity using a modified limb lead system, Anatolian Journal of Cardiology, Published online.

11. S. Hariharakrishnan, D. Ezhilarasi, **G. Uma**, M. Umapathy, Pyroelectric based solar and wind energy harvesting system, IEEE Transactions on Sustainable Energy, Vol.5, No.1, 73-81.

12. S. Ismail, A.A. Pashilkar, **R. Ayyagari** & N. Sundararajan, "Diagonally dominant backstepping autopilot for aircraft with unknown actuator failures and severe winds," The Aeronautical Journal (of the Royal Aeronautical Society, UK), Vol. 118, No. 1207, pp. 2014. IMPACT FACTOR: 0.5

13. S. Ismail, A.A. Pashilkar, **R. Ayyagari** & N. Sundararajan, "Improved Neural-aided Sliding Mode Controller for Autolanding under Actuator Failures and Severe Winds," *Elsevier J. Aerospace Science & Technology*, Vol. 33, No. 1, pp. 55-64, 2014**.** IMPACT FACTOR: 0.983

14. S. Seshadhri, & **R. Ayyagari**, "Advanced driver assistance system for AHS over communication links with random packet dropouts," *Elsevier J. Mech. Systems and Signal Processing*, Vol. 49, pp. 53-62, 2014. IMPACT FACTORs: 1.824

15. P. Kavitha, and **R. Ayyagari**, "Simple and Straight Proofs of Stability Criteria for LTIL Systems," *Transactions of the Institute of Measurement & Control*, Vol. 36, No. 4, pp. 523-528, 2014. IMPACT FACTOR: 0.736.

16. **K Dhanalakshmi**, M. Umapathy and D Ezhilarasi, 'Sliding Mode Control of SMA Actuated Structures for Vibration Control', *International Journal of Modelling, Identification and Control,* 23(3), 2015 Forthcoming Article

17. S. Sunjai Nakshatharan, **K. Dhanalakshmi** and D. Josephine Selvarani Ruth, 'Servo control of an under actuated system using antagonistic shape memory alloy', *Smart Structures and Systems,* 14(4), Oct 2014, 643 – 658. Science Citation Index - Expanded, IF - **1.430**

18. S. Krishna Chaitanya and **K Dhanalakshmi**, 'Design and investigation of a shape memory alloy actuated gripper', *Smart Structures and Systems,* 14(4), Oct 2014, 541 – 558. Science Citation Index - Expanded, IF - **1.430**

19. **K Dhanalakshmi**, M. Umapathy and D Ezhilarasi, 'SMA Actuated Structural Control with Discrete Time Sliding Mode using Multirate Output Feedback', *Journal of Vibration and Control* (Published online – July 2014). Science Citation Index - Expanded, IF - **4.355**

20. S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth and **K. Dhanalakshmi**, 'Dynamic stabilization and rapid motion control system driven by antagonistic shape memory alloy actuators', *Journal of Vibration and Control* (Published online – Feb 2014). Science Citation Index - Expanded, IF - **4.355**

21. D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and **K. Dhanalakshmi**, 'Differential resistance feedback control of a self-sensing shape memory alloy actuated system' *ISA Transactions*, 53(2), March 2014, 289 – 297. Science Citation Index - Expanded, IF - **2.256**

22. P Senthilkumar, M Umapathy and **K Dhanalakshmi**, 'Modulated Adaptive Fuzzy controller for position control of SMA wire actuator', *Journal of Intelligent and Fuzzy Systems,* 27(1), July 2014, 9 – 18. Science Citation Index - Expanded, IF - **0.936**

23. V.Kirubhakaran, T.K.Radhakrishnan, **N.Sivakumaran**, "A Metaheuristic Patient Estimation Based Patient Specific Fuzzy Aggregated Artificial Pancreas Design", *Industrial & Engineering Chemistry Research* I&EC Res (ACS), 53(39),15052–15070,2014.(IF **2.235**)

24. V.Kirubhakaran, T.K.Radhakrishnan, **N.Sivakumaran**, "Distributed Multiparametric Model Predictive Control Design for a Quadruple tank process", *Measurement*, 47, 841-854, *Elsevier,* 2014. (IF **1.526**)

25. V.Kirubhakaran, T.K.Radhakrishnan, **N.Sivakumaran**, "Multiparametric Model Predictive Control based regulation of Blood Glucose in type 1 Diabetics under unmeasured meal Disturbances: A Simulation Study", *Int. J. Biomedical Engineering and Technology*, Inderscience, 14(2),105-118,2014.

26. A. Rami Reddy, M. Umapathy, **D. Ezhilarasi**, G. Uma, Improved energy harvesting from vibration by introducing cavity in a cantilever beam, *Journal of Vibration and Control* published online, Nov 2014.

27. K Dhanalakshmi, M Umapathy and **D Ezhilarasi**, "Shape memory alloy actuated structural control with discrete time sliding mode control using multirate output feedback**,** *Journal of Vibration and Control* published online 4 July 2014

28. Minu A Pillai and Ezhilarasi Deenadayalan, "A Review Of Acoustic Energy Harvesting", International Journal Of Precision Engineering And Manufacturing, Vol. 15, No. 5, Pp. 949-965, May 2014

29. S. Hariharakrishnan, **D. Ezhilarasi**, G. Uma, M. Umapathy, Pyroelectric based solar and wind energy harvesting system, IEEE Transactions on Sustainable Energy, Vol.5, No.1, 73-81, 2014 .

2012-2013

1. J.Sivaraman, G.Uma, S.Venkatesan, **M. Umapathy**, V.E. Dhandapani, A novel approach to determine atrial repolarization in electrocardiograms, Journal of Electrocardiology, Vol 46 No.4, pp.e1. August 2013 (abs).

2. P. Senthilkumar, **M. Umapathy**, K. Dhanalakshmi, Modulated adaptive fuzzy controller for position control of SMA wire actuator, accepted for publication in the Journal of Intelligent and Fuzzy Systems, in July 2013.

3. K Suresh, G Uma, **M Umapathy**, New observation on automatic phase adjustment of a smart cantilever resonator, Journal of Vibration and Control, USA, Published Online, July 2013. (DOI: 10.1177/1077546313497244).

4. J. Arunshankar, **M. Umapathy**, Simultaneous Stabilization of Piezo Actuated Structures Using Fast Output Sampling Control Involving Data Fusion, accepted for publication in the Journal of Advances in Vibration Engineering, Journal of the Vibration Institute of India, in June 2013.

5. P. Senthilkumar, **M. Umapathy**, Use of load generated by SMA for its position control with neural network estimator, Journal of Vibration and Control, USA, Published Online, May 2013. (DOI: 10.1177/1077546313481000).

6. J. Arunshankar, **M. Umapathy** and B. Bandhopadhyay, Experimental evaluation of discrete sliding mode controller for piezo actuated structure with multisensor data fusion, Journal of Smart Structures and Systems, Vol.11, No.6, 2013.

7. J. Sivaraman, **G. Uma**, S. Venkatesan, M. Umapathy, V. E. Dhandapani, A novel approach to determine atrial repolarization in electrocardiograms, Journal of Electrocardiology, Vol. 46, No. 4, e1.

8. K. Suresh, **G. Uma**, M. Umapathy, New observation on automatic phase adjustment of a smart cantilever resonator, Journal of Vibration and Control, Published Online. (DOI: 10.1177/1077546313497244).

9. J. Sivaraman, **G. Uma**, M. Umapathy, Analysis of human atrial repolarization phase of electrocardiogram in normal subject, Journal of Clinical and Experimental Cardiology, Vol. 3, No.2, 90.

10. P. Kavitha, and **R. Ayyagari**, "A computationally faster algorithm to test the stability of characteristic polynomials," *Int. J. Systems, Control and Communications,* Vol. 5, No. 2, pp. 166-176, 2013. **IMPACT FACTOR: 1.952**

11. S. Ismail, A.A. Pashilkar, **R. Ayyagari** & N. Sundararajan, "Unified Aircraft Dynamic Model Formulation for Flight Controller Design", *Journal of Guidance, Control and Dynamics* (AIAA), 2013. IMPACT FACTOR: 0.941

12. N. Raju, S. Suresh, C. Sridharan and **R. Ayyagari**, "Prediction and control of longitudinal bending distortion due to welding, "*Int. J. Adv. Manufacturing Technology* (Springer Publications) 2013. IMPACT FACTOR: 1.103

13. D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and **K Dhanalakshmi**, '*Auto-adaptive control of a one-joint arm direct driven by antagonistic shape memory alloy actuat*ed wires', *International Journal of Smart Sensing and Intelligent Systems*, 6(3), June 2013, 833-849. (Selected for publication from ICST2012)

14. C.Ahilan, S.Kumanan, **N.Sivakumaran**, J.Edwin Raja Dhasd, "Modeling and prediction of machining quality in CNC turning process using intelligent hybrid decision making tools", *Journal on Applied Soft computing,Elsevier,* 13,1543-1551, 2013. (IF **2.679**)

15. Abhfeeth K. A., **D. Ezhilarasi**, "Monitoring and Control of Agriculture Parameters in a Greenhouse through Internet", Sensors & Transducers, Vol.150, Issue 3, March 2013, pp 106-112

16. **Srinivasan K** and Anbarasan K. Paper tilted ' Fuzzy scheduled RTDA controller design for non-linear processes' ISA Transactions, Elsevier Publications, Vol. 52, pp-252-267,2013 (5 Year Impact factor: 2.015 Current Impact factor: 2.256).

2011-2012

1. J. Sivaraman, G.Uma, **M. Umapathy**, Analysis of human atrial repolarization phase of electrocardiogram in normal subject, Journal of Clinical and Experimental Cardiology, Vol 3(2), pp-90, March 2012 (abs).

2. K. Suresh, G. Uma, **M. Umapathy**, A new self sensing electronics for piezoelectric resonance sensors, Journal of intelligent material systems and structures, Vol 23, No.5, pp. 485-594, 2012.

3. K. Suresh, G. Uma, **M. Umapathy**, Design of resonance based mass sensor using self sensing piezoelectric actuator", Journal of Smart Materials and Structures, 21,025015, pp.1-6, 2012.

4. B.V.M.P. Santhosh Kumar, K. Suresh, U. Varun Kumar, G. Uma and **M. Umapathy**, "Resonance based DC current sensor", Measurement, Vol. 45(3), pp. 369-374, 2012.

5. P Senthilkumar, G N Dayananda, **M Umapathy**, V Shankar, Experimental evaluation of a shape memory alloy wire actuator with a modulated adaptive controller for position control, Journal of Smart Materials and Structures, Vol. 21, No.1, pp. 1-11, 2012.

6. K. Suresh, **G. Uma,** M. Umapathy, A new self sensing electronics for piezoelectric resonance sensors, Journal of intelligent material systems and structures, Vol. 23, No.5, 587-593.

7. K. Suresh, **G. Uma,** M. Umapathy, Design of resonance based mass sensor using self sensing piezoelectric actuator, Journal of Smart Materials and Structures, 21, 025015.

8. B.V.M.P. Santhosh Kumar, K. Suresh, U. Varun Kumar, **G. Uma** and M. Umapathy, Resonance based DC current sensor, Measurement, Vol.45, No.3, 369-374.

9. S. Ismail, A.A. Pashilkar, **R. Ayyagari** & N. Sundararajan, "Neural-Sliding Mode Augmented Robust Controller for Autolanding of Fixed Wing Aircraft," *Polish J. of AI and Soft Computing Research*, (Polish Neural Network Society) Vol. 2, No. 4, pp. 317-330, 2012.

10. T.Vinopraba, **N.Sivakumaran**, S.Narayanan, T.K.Radhakrishnan, "Design of internal model control based fractional order PID controller", *Journal of Control Theory and Applications*, 10 (3), 297-302, 2012.

11. T.Vinopraba N.Sivakumaran **S.Narayanan**, T.K.Radhakrishnan, "Design of internal model control based fractional order controller", J Control Theory appl. 2012, 10(3)297-302. Springer

12. Rajni Jain, T.Vinopraba, T.K.Radhakrishnan, **N.Sivakumaran**, "Design of Fuzzy-PI Controllers for MIMO Process", *Control and Intelligent Systems (ACTA Press)*, 40 (4), 1-9, 2012. (DOI: 10.2316/Journal.201.2012.4.201-2220)

13. **Srinivasan K**, Singh J., Anbarasan K, Paik R., Medhi R. And Choudhury K.D. Paper tilted 'MPC and RTDA Controller for FOPDT & SOPDT Process' International Journal of Information Systems and Communication', Vol. 3, Issue 1, 2012, pp.109-113. (Impact value ICV: 4.57 ISSN: 0976-8742 & E-ISSN: 0976-8750)

2010-2011

1. K. Suresh, G. Uma, **M. Umapathy**, A new resonance based method for the measurement of non magnetic conducting sheet thickness, IEEE Transactions on Instrumentation and Measurement, 60 (12), pp 3892 – 3897, 2011.

2. K. Suresh**,** G. Uma, B.V.M.P. Santhosh Kumar, U. Varun Kumar, **M. Umapathy,** Piezoelectric based resonant mass sensor using phase measurement, Measurement, 44(2), pp. 320-325, 2011.

3. Dharmalingam, S., L. Sivakumar, T. Anandhi, **M. Umapathy**, Improved method to mitigate the effect of coal fuel switching on critical process parameters of a steam generator in a thermal power plant, Proc. IMechE Part A: J. Power and Energy, Vol. 225, pp. 1026-1040, 2011.

4. K. Dhanalakshmi, **M. Umapathy**, D. Ezhilarasi, B. Bandyopadhyay, Design and implementation of fast output sampling feedback control for shape memory alloy actuated structures", Journal of Smart Structures and Systems, Techno press, Vol. 8, No.4, PP 367- 384, 2011.

5. J. Arunshankar, **M. Umapathy**, B. Bandyopadhyay, D. Ezhilarasi, Multirate feedback control of piezo actuated structures with multisensor data fusion, International Journal of Image and Data Fusion, pp 1-16, 2011.

6. J. Arunshankar, **M. Umapathy**, D. Ezhilarasi, Sliding mode controller with multisensor data fusion for piezo-actuated structure, Defence Science Journal, Vol. 61, No.4, pp. 346-353, 2011.

7. K. Suresh, **G. Uma,** M. Umapathy, A new resonance based method for the measurement of non magnetic conducting sheet thickness, IEEE Transactions on Instrumentation and Measurement, Vol. 60, No.12, 3892-3897.

8. K. Suresh**, G. Uma,** B.V.M.P. Santhosh Kumar, U. Varun Kumar, M. Umapathy, Piezoelectric based resonant mass sensor using phase measurement, Measurement, Vol. 44, No.2, 320-325.

9. S. Seshadhri, & **R. Ayyagari**, "Dynamic controller for Network Control Systems with random communication delay," *Int. J. Systems, Control and Communications,* Vol. 3, No. 2, pp. 178-192, 2011. **IMPACT FACTOR: 1.952**

10. S. Seshadhri, & **R. Ayyagari**, "Platooning over packet-dropping links," *Int. J. Vehicle Autonomous Systems,* Vol. 9, Nos. 1-2, pp. 46 – 62, 2011.

11. **K Dhanalakshmi**, M. Umapathy, D Ezhilarasi, M Marimuthu, 'Experimental Evaluation of Periodic Output Feedback Control for SMA Actuated Structures', *International Journal of Advanced Mechatronic Systems*, 2(5/6), Dec 2010, 330-341.

12. Rajni Jain, **N. Sivakumaran**, T.K.Radhakrishnan, "Design of self tuning fuzzy controllers for nonlinear systems", *Expert Systems with Applications*, *Elsevier* 38, 4466–4476, 2011. (IF **1.965**)

13. P.Satheeshkumar, T.Vinopraba, **N.Sivakumaran**, S.Raghavan, "Design and implementation of Model Predictive controller for Type I diabetics, *Int. J. Biomedical Engineering and Technology*, Inderscience, 6(4), pp. 422-430, 2011.

14. S.Nithya, **N.Sivakumaran,** T.Balasubramanian, N.Anantharaman, "Intelligent controller Design for Nonlinear Processes using Genetic Algorithm", *IUP Journal of Mechanical Engineering*, IV(1), 7-24, 2011.

15. C.Ahilan, S.Kumanan, **N.Sivakumaran**, "Optimization of CNC turning of AISI 304 Austenitic stainless steel using Grey based fuzzy logic with multiple performance characteristics", *Journal of Machining and Forming Technologies*, 3(3-4), 1–19, 2011.

16. C.Ahilan, S.Kumanan, **N.Sivakumaran**, "Online performance assessment of Heat Exchanger using Artificial Neural Network", Int. *Journal of Energy and Environment*, 2(5), 829-844, 2011

17. **Srinivasan K**. and Vinod Reddy T. Paper titled 'Design of multi-model-based controller design and implementation using microcontroller for blood glucose regulation of Type 1 diabetic system' published in *Int. J. Biomedical Engineering and Technology, Inderscince Publications, Vol. 5(4),pp. 343-359,2011.*

18. J. Arunshankar, M. Umapathy, **D. Ezhilarasi,** "Sliding mode controller with multisensory data fusion for piezoactuated structure", Defence Science Journal, vol.60. No.4, pp-346-352,July 2011

19. K. Dhanalakshmi, M. Umapathy, **D. Ezhilarasi** and B. Bandyopadhyay, "Design and implementation of fast output sampling feedback control for shape memory alloy actuated structures", Smart Structures and Systems, Vol. 8, No. 4 (2011)

20. J. Arunshankar, M. Umapathy, B. Bandyopadhyay and **D. Ezhilarasi**, "Multirate feedback control of piezo actuated structures with multisensor data fusion" International Journal of Image and Data Fusion (Taylor & Francis), pp.1-16, 2011

2009-2010

1. B.V.M.P. Santhosh Kumar, K. Suresh, U. Varun Kumar, G. Uma, **M. Umapathy**, Design and simulation of resonance based DC current sensor, International Journal of Interaction and Multiscale Mechanics, Vol.3, No.3, 257-266, 2010. *(SCI)*

2. M. Shanmugavalli, **M. Umapathy**, G. Uma, Smart coriolis mass flowmeter, Measurement, 43(4), pp. 549-555, 2010. *(SCI, Impact factor:1.526)*

3. D. Ezhilarasi, **M. Umapathy**, B. Bandyopadhyay, Design and experimental evaluation of simultaneous fast output feedback control for piezoelectric actuated beam structures, International Journal of Automation and Control (IJAAC), 4(1), pp. 42-64, 2010.

4. K. Dhanalakshmi, **M. Umapathy**, D. Ezhilarasi, M. Marimuthu, Experimental evaluation of periodic output feedback control for SMA actuated structures, International Journal of Advanced Mechatronic Systems (IJAMS), 2(4), 2010.

5. B.V.M.P. Santhosh Kumar, K. Suresh, U. Varun Kumar, **G. Uma** and M. Umapathy, Design and simulation of resonance based DC current sensor, International Journal of Interaction and Multiscale Mechanics, Vol. 3, No. 3, 257-266.

6. M. Shanmugavalli, M. Umapathy, **G. Uma**, Smart coriolis mass flowmeter, Measurement, Vol. 43, No. 4, 549-555.

7. N. Raju, S. Suresh, G. Ravichandran, & **R. Ayyagari**, "Analysis of distortion control during fabrication of industrial structure made of austenitic stainless steel," *WRI Journal,* 31, No. 2, pp. 11-18, 2010.

8. **K Dhanalakshmi**, M. Umapathy, D Ezhilarasi, M Marimuthu, 'Experimental Evaluation of Periodic Output Feedback Control for SMA Actuated Structures', *International Journal of Advanced Mechatronic Systems*, 2(5/6), Dec 2010, 330-341.

9. **K Dhanalakshmi**, Aditya Avinash, M. Umapathy, M Marimuthu, 'Experimental Study on Vibration Control of Shape Memory Alloy Actuated Flexible Beam', *International Journal of Smart Sensing and Intelligent Systems*, 3(2), June 2010, 156-174.

10. C.Ahilan, S.Kumanan, and **N.Sivakumaran** "Design and implementation of an intelligent controller for a split air conditioner with energy saving", *Journal of Advances in Modeling*,AMSE,65(1),21-40,2010.

11. S.Nithya, **N.Sivakumaran**, T.K.Radhakrishnan, and N.Anantharaman, "Control of Nonlinear Process using Soft Computing", The ICFAI J of Electrical & Electronics Engg., 3(1), 66-79 (2010).

12. C.Ahilan, S.Kumanan, **N.Sivakumaran**, "Application of Grey based Taguchi method in multi response of optimization of turning process", *Advances in Production Engineering and Management*, 5(3), 171-180, 2010.

13. S.C.Lee, Q.G. Wang, W.X. Zheng, **N. Sivakumaran,** "Stabilization and Control of Unstable Processes with Large Dead Time", *Transactions of the Institute of Measurement and Control*, 32 (3), pp.286-306,2010. (IF **0.736**)

14. **Srinivasan K,** Vinod Reddy T and Sriram R., Paper titled 'Internal model control design for blood glucose in Diabetic patients' 'International Journal of Pharmaceutical and Applied Sciences', Vol. 1, pp. 48-51, 2010. (ISSN 0976-6936).

15. **D. Ezhilarasi**, M. Umapathy, b. Bandyopadhyay, "Design and Experimental Evaluation of Simultaneous Fast Output Feedback control for Piezoelectric Actuated Beam structures", International Journal of Automation and Control, vol. 4, No.1 pp.42-64, 2010.(Impact)

16. K. Dhanalakshmi, M. Umapathy, **D. Ezhilarasi** and M. Marimuthu, "Experimental evaluation of periodic output feedback control for SMA actuated structures", *International Journal of Advanced Mechatronic Systems 2010 - Vol. 2, No.5/6 pp. 330 - 341*

2008-2009

1. M. Shanmugavalli, G. Uma, **M. Umapathy**, Uncertainty analysis of micro differential pressure sensor using interval analysis, International Journal on Smart Sensing and Intelligent Systems, 2(3), pp. 463-476, 2009.

2. B. Vasuki, **M. Umapathy**, A. R. Senthilkumar, Uncertainty analysis of strain gage circuits: interval method and interval algorithms, International Journal on Smart Sensing and Intelligent Systems, 2(3), pp.477-489, 2009.

3. S. Neduncheliyan, **M. Umapathy**, D. Ezhilarasi, Simultaneous periodic output feedback control for piezoelectric actuated structures using interval methods, International Journal on Smart Sensing and Intelligent Systems, 2(3), pp. 417-431, 2009.

4. M. Shanmugavalli, G. Uma, **M. Umapathy**, Modeling and analysis of micro fluidic channels, Sensors & Transducers Journal, 106(7), pp.155-163, 2009.

5. D. Ezhilarasi, **M. Umapathy**, B. Bandyopadhyay, Design and experimental evaluation of simultaneous periodic output feedback control for piezoelectric actuated beam structure, Structural Control and Health Monitoring, Vol.16, pp.335-349, 2009.

6. L. R. Karl Marx, **M. Umapathy**, D. Ezhilarasi, Embedded output feedback controllers for piezoelectric actuated structures, World Journal of Modeling and Simulation, Vol. 5 , No. 2, pp. 113-119, 2009

7. L. R. Karl Marx, **M. Umapathy,** A. Girija, D. Ezhilarasi, Discrete time sliding mode control using fast output sampling feedback for piezoelectric actuated structures**,** Sensors & Transducers Journal, Vol. 102, Issue 3, pp. 71-83, 2009.

8. G. Uma, **M. Umapathy**, K. Suneel Kumar, K. Suresh, A. Maria Josephine, Microcontroller based split mass resonant sensor for absolute and differential sensing, Journal of Smart Structures and Systems, Techno press, Vol. 5, No.3,pp 279-290, 2009.

9. B. Vasuki, **M. Umapathy**, S .K. Velumani, Uncertainty analysis of thermocouple circuits, Sensors & Transducers Journal, Volume 100, Issue 1, pp.11-15, 2009.

10. **G. Uma**, M. Umapathy, K. Suneel Kumar, K. Suresh, A. Maria Josephine, Microcontroller based split mass resonant sensor for absolute and differential sensing, Journal of Smart Structures and Systems, Vol. 5, No.3, 279-290.

11. M. Shanmugavalli, **G. Uma**, M. Umapathy, Uncertainty analysis of micro differential pressure sensor using interval analysis, International Journal on Smart Sensing and Intelligent Systems, Vol. 2, No. 3, 463-476.

12. M. Shanmugavalli, **G. Uma**, M. Umapathy, Modeling and analysis of micro fluidic channels, Sensors & Transducers Journal, Vol. 106, No.7, 155-163.

13. N. Raju, S. Suresh, D Jebaseelan & **R. Ayyagari**, "Analysis of angular deformation in a full penetration un-symmetrical tee joint. *J.Manufacturing & Industrial Engineering,* Technical University of Kosice, Slovakia, vol. 4, pp. 58-61, 2009.

14. G.Balasubramanian, K. Hariprasad, **N. Sivakumaran** and T.K.Radhakrishnan, "Adaptive Control of Multivariable Process Using Recurrent Neural Networks", Instrumentation Science & Technology (Taylor & Francis), 37, 615–630 (2009). (IF **0.8**)

15. G. Balasubramanian, K. Hariprasad, **N. Sivakumaran** and T.K.Radhakrishnan, "Adaptive Control of Neutralization Process using Recurrent Neural Networks", Instrumentation Science & Technology (Taylor & Francis), 37(4), 383-396(2009). (IF **0.8**)

16. S.Narayanan, N.Sivakumaran, **T.Vinopraba**, N.Selvaganesan, "IMC Based $PI^\lambda D^\delta$ Controller Design for Gas Turbine Plant", *Modeling and Simulation*, AMSE 10 (1), pp. 63-72, 2009.

17. L. R. Karl Marx, M. Umapathy, A. Girija, **D. Ezhilarasi**, "Discrete Time Sliding Mode Control Using Fast Output Sampling Feedback for Piezoelectric Actuated Structures," Sensors & Transducers Journal, Vol. 102, Issue 3, March 2009, pp.71-83.

18. S.Neduncheliyan, M.Umapathy, **D.Ezhilarasi**, "Simultaneous Periodic Output Feedback Control for Piezoelectric Actuated Structures Using Interval Methods, International Journal on Smart Sensing and Intelligent Systems, vol.2, No. 3, September 2009

19. L.R. Karlmarx, M. Umapathy, **D. Ezhilarasi, "**Embedded output feedback controllers for piezoelectric actuated structures", World Journal of Modeling and Simulation Vol. 5 (2009) No. 2, pp. 113-119

20. D. **Ezhilarasi**, M. Umapathy, B.Bandyopadhyay, "Design and experimental evaluation of Simultaneous periodic output feedback control for structural vibration suppression using PZT patches" Journal of Structural control and health monitotoring, Wiley Interscience, 16, 335-349, 2009

21. Prakash J. and **Srinivasan K**. 'Design of nonlinear PID controller and nonlinear model predictive controller for a continuous stirred tank reactor' ISA Transactions, Elsevier Publications, Vol. 48, pp.-273-282, 2009. (5 Year Impact factor: 2.015 Current Impact factor: 2.256)

2007-2008

1. G. Uma, M. Umapathy, A. Maria Josephine, S. Aishwarya, Design of microcontroller based resonant sensor with piezoelectric excitation and detection, Journal of Instrumentation Science and Technology, Taylor and Francis Group, Vol. 36, No. 4, pp. 367 – 374, 2008.

2. K Dhanalakshmi, **M Umapathy**, Active vibration control of SMA actuated structures using fast output sampling based sliding mode control, Journal of Instrumentation Science and Technology, Taylor and Francis Group, Vol. 36, No.2, pp. 180 – 193, 2008.

3. K Dhanalakshmi, **M Umapathy**, C Chandravathanam, Control of shape memory alloy actuated beam using periodic output feedback control, The Mediterranean Journal of Measurement and Control, pp.8-14, 2008.

4. B. Vasuki, **M. Umapathy**, G. Uma, Uncertainty analysis of temperature measurement system using analytical and interval algorithm, Journal of Instrumentation Science & Technology, Vol. 36, No.2, pp.81-87, 2008.

5. R. Maheswari, **M. Umapathy**, L. R. Kralmarx, D. Ezhilarasi, Design and implementation of output feedback control for piezo actuated structure using embedded system, Sensors and Transducers Journal, Vol. 93, Issue 6, pp. 29-36, 2008.

6. R. Maheswari, **M. Umapathy**, L. R. Karalmarx, S. Neduncheliyan, Design of PID, fuzzy, fuzzy-PID gain conditioner for piezo actuated structures, Journal of System Simulation, Vol.2, No.2, 2008

7. **G. Uma,** M. Umapathy, A. Maria Josephine, S. Aishwarya, K. Suresh, Design of microcontroller based resonant sensor with piezoelectric excitation and detection, Journal of Instrumentation Science and Technology, Vol. 36, No. 4, 367-374.

8. B. Vasuki, M. Umapathy, **G. Uma**, M. Shanmugavalli, Uncertainty analysis of temperature measurement system using analytical and interval algorithm, Journal of Instrumentation Science & Technology, Vol. 36, No.2, 81-87.

9. **G. Uma,** M. Umapathy, A. Maria Josephine, S. Aishwarya, K. Suresh, Design of microcontroller based resonant sensor with piezoelectric excitation and detection, Journal of Instrumentation Science and Technology, Vol. 36, No. 4, 367-374.

10. B. Vasuki, M. Umapathy, **G. Uma**, M. Shanmugavalli, Uncertainty analysis of temperature measurement system using analytical and interval algorithm, Journal of Instrumentation Science & Technology, Vol. 36, No.2, 81-87.

11. P.L.K. Priyadarsini, Hemalatha Thyagarajan, & **R. Ayyagari**, "A Randomized Approximation Algorithm for a Linear Control Design Problem," *Int. J. Combinatorics, Information & System Sciences*, vol. 33, No. 3-4, pp. 209-218, 2008

12. **K Dhanalakshmi,** M. Umapathy, 'Active Vibration Control of SMA Actuated Structures using Fast Output Sampling Based Sliding Mode Control', *Instrumentation Science and Technology,* 36(2), March 2008, 180-193. Science Citation Index, IF - **0.8**

13. **K Dhanalakshmi,** M. Umapathy, D. Ezhilarasi and C. Chandravathanam, 'Control of Shape Memory Alloy Actuated Beam using Periodic Output Feedback Control', *The Mediterranean Journal of Measurement and Control*, 4(1), January 2008, 8-14.

14. S.Nithya, **N.Sivakumaran,** T.Balasubramanian, N.Anantharaman, "Design of Controller for Nonlinear process using Soft Computing", *Instrumentation Science and Technology*, Taylor and Francis ,36(2), pp. 437-450,2008. (IF **0.8**)

15. **N.Sivakumaran** and T.K.Radhakrishnan, "Modeling and Control of Multivariable Processes using Recurrent Neural Networks", *International Journal of Modeling and Simulation*, ACTA Press 28(1), pp. 20-26, 2008.

16. S.Nithya, **N.Sivakumaran,** T.Balasubramanian, N.Anantharaman, "Intelligent control of interacting nonlinear process in real time", *International Journal of Applied Engineering Research*, 3(4), 491-503, 2008.

17. S.Nithya, Abhay Singh Gour , **N.Sivakumaran**, and N.Anantharaman, "Measurement and control of Process using soft computing", *Instrumentation Science and Technology*, Taylor and Francis ,36(2), pp. 194-208,2008. (IF **0.8**)

18. G.Balasubramanian, **N.Sivakumaran,** T.K.Radhakrishnan, Adaptive Control of Neutralization Process using Neural Networks, *Instrumentation Science & Technology*, Taylor & Francis,36, pp. 146-160,2008. (IF **0.8**)

19. S.Nithya, Abhay Singh Gour, **N.Sivakumaran**, T.K.Radhakrishnan, T.Balasubramanian and N.Anantharaman, "Design of Controller Implementation for non-linear processes using Intelligent Controller", *Asian Journal of Applied Sciences*, pp.1-13, ISSN 1996-3343, 2008.

20. R. Maheshwari, M. Umapathy, L.R. Karlmarx, **D. Ezhilarasi**, „design and Implementation of –Output Feedback Control for Piezo actuated structure Using Embedded System", Sensors & Transducers Journal, vol. 93, Issue 6, June 2008, pp 29-36

21. K. Dhanalakshmi, M. Umapathy, **D. Ezhilarasi**, C. Chandravadhanam, "Control of SMA Actuated beam using periodic Output Feedback Control", The Mediterranean journal of Measurement and Control, Vol.4, No.1, 8-14(pp), 2008

2006-2007

1. **M. Umapathy**, B. Bandyopadhyay, Design of simultaneous periodic output feedback control for smart structures, International Journal of Modeling and Simulation, Vol. 27, No. 1, 2007.

2. **M. Umapathy**, B. Bandyopadhyay, Design of fast output sampling feedback control for smart structure model, Journal of Control and Intelligent Systems, Vol. 35, No.1, 2007.

3. G. Uma, Sumy Jose, V. Natarajan, **M. Umapathy**, M. Kathiresan, Design and simulation of PVDF-MOSFET based MEMS hydrophone, Journal of Instrumentation Science & Technology, Vol. 35, No.3, pp. 329-339, 2007.

4. S. Neduncheliyan, **M. Umapathy**, D. Ezhilarasi, Control of piezo actuated structure using an interval method, Journal of Instrumentation Science & Technology, Vol. 35, No.4, pp. 385-397, 2007.

5. S. Neduncheliyan, **M. Umapathy**, Design of state feedback controller for smart cantilever beam using interval method, International Journal of COMADEM, Vol. 10, No.3, pp. 9-12, 2007.

6. B. Vasuki, **M. Umapathy**, S. Akhilan, Uncertainty analysis of temperature measurement system using interval arithmetic, Sensors & Transducers Journal, Volume 84, Issue 10, pp.1619-1624, 2007.

7. **G. Uma**, Sumy Jose, V. Natarajan, M. Umapathy, M. Kathiresan, Design and simulation of PVDF-MOSFET based MEMS hydrophone, Journal of Instrumentation Science & Technology, Vol. 35, No.3, 329-339.

8. N. Raju, G. Ravichandran, S. Suresh, & **R. Ayyagari**, "An overview of stress measurement techniques, *WRI journal*, vol. 28, No. 3, pp. 15-20, 2007.

9. S.Nithya, Abhay Singh Gour, **N.Sivakumaran**, T.K.Radhakrishnan and N.Anantharaman, "Model based Controller design of shell and tube Heat exchanger", *Sensors & Transducers* Journal, 84(10), pp.1677-1686, 2007. (IF **0.705**)

10. A.Siddique, M.R.Jayashree, O.Muthukumar, R.Maheswari and **N.Sivakumaran**, "Control of Pressure Process using Infineon Microcontroller", *Sensors & Transducers* Journal, 81(7), pp. 1373-1380,2007. (IF **0.705**)

11. S. Neduncheliyan**, D. Ezhilarasi**, M. Umapathy, B. Vasuki, Control of Piezo actuated structure using an Interval method, Journal of instrumentation Science & Technology, Vol.35,No.4,pp 385-397 (13), 2007

2005-2006

1. G. Uma, A. Girija, **M. Umapathy**, Optimized design of micro resonators using genetic algorithm, Sensors and Transducer Journal, Vol.72, Issue 10, pp. 740-753, 2006.

2. D. Ezhilarasi, **M. Umapathy**, B. Bandyopadhyay, Design and experimental evaluation of piecewise output feedback control for structural vibration

suppression using PZT patches, Journal of Smart Materials and Structures,Vol.15, pp. 1927-1938, 2006.

3. Jagadeesh Pandian, **M. Umapathy**, S. Balachandar, S. Ramaswamy, M. Arumugam, Modeling & simulation of novel three arm MEMS actuators & its applications, Journal of Physics, Conference Series 34, pp. 436-441, 2006.

4. Jagadeesh Pandian, **M. Umapathy**, S. Balachandar, S. Ramaswamy, M. Arumugam, Design of industrial vibration transmitter using MEMS accelerometer, Journal of Physics, Conference Series 34, pp. 442-447

5. S.A Anbalagan, G. Uma**, M. Umapathy**, Modeling and simulation of capacitive micro machined ultrasonic transducer (CMUT), Journal of Physics, Conference Series 34, pp. 595-600, 2006.

6. **G. Uma**, A. Girija, M. Umapathy, Optimized design of micro resonators using genetic algorithm, Sensors and Transducer Journal, Vol.72, No. 10, 740-753.

7. S. A. Anbalagan, **G. Uma,** M. Umapathy, Modeling and simulation of capacitive micro machined ultrasonic transducer (CMUT), Journal of Physics, Conference Series 34, 595-600.

8. J. Vijay, Ivan Saha, **G.Uma**, M. Umapathy**,** Modeling and simulation of multi-port RF switch, Journal of Physics, Conference Series 34, 715-721.

9. M. Shanmugavalli, **G. Uma**, B. Vasuki, M. Umapathy, Design and simulation of MEMS device using interval analysis, Journal of Physics, Conference Series 34, 601-605.

10. S.Nagammai, **N.Sivakumaran,** T.K.Radhakrishnan, "Control System Design for a Neutralization Process using Block Oriented Models", *Instrumentation Science & Technology*, Taylor & Francis, 34 (6), 653-668, 2006. (IF **0.8**)

11. **D. Ezhilarasi**, M. Umapathy, B.Bandyopadhyay, "Design and experimental evaluation of piecewise output feedback control for structural vibration suppression using PZT patches" Journal of Smart Materials and Structures, Vol.15 No. Page number: 1927-1938, 2006.