## DR. H.K. VERMA

# **Selective List of Research Papers Published/ Presented**

- 1. H.K. Verma and T.S.M. Rao, "Telecommunication of Odours", Journal of Institution of Telecom Engineers, vol. 18, no. 6, June 1972, pp. 281-284 (1).
- 2. P. Mukhopadhay and H.K. Verma, "Respiration Control and Tachometry", Journal of Institution of Instrumentation Scientists and Technologists, vol. 1, no. 1, 1972, pp. 11-14 (2).
- 3. T.S.M. Rao, H.K. Verma and G.P. Chaukiyal, "Development of Static Protective Relays for 25-kV Traction System", Journal of Institution of Engineers (India), vol. 53, pt. EL, no.3, Feb. 1973, pp. 106-108 (5).
- 4. H.K. Verma and T.S.M. Rao, "A New Working Principle for Static Distance Relays", Proceedings 43<sup>rd</sup> Annual Session, C.B.I. and P., vol. Power-IV, June 1973, pp. 1-4 (6).
- 5. H.K. Verma and T.S.M. Rao, "Improved Protection for 25-kV Traction Overhead Equipment", Proceedings of 43<sup>rd</sup> Annual Research Session, C.B.I. and P., vol. Power-IV-A, June 1973, pp. 13-16 (7).
- 6. H.K. Verma and T.S.M. Rao, "A New Approach to Distance Protection", CIGRE, Paris, Aug. 1974, paper no. 34-09 (12).
- 7. H.K. Verma, P. Mukhopadhyay and S.C. Saxena, "Artificial Respiration for Patients", Journal of Institution of Engineers (India), vol. 55, pt. IDGE, no. 1, Sep. 1974, pp. 23-25 (14).
- 8. S.C. Saxena, P. Mukhopadhyay & H.K. Verma, "Respirator Design", Proceedings IEE-IERE, Nov.-Dec. 1974, vol. 12, no. 6, pp. 235-239 *(15)*.
- 9. H.K. Verma, K. Bose and P. Mukhopadhyay, "A Telemetry Unit for Hospitals", Journal of Institution of Engineers (India), vol. 55, pt. IDGE, no. 2, Jan. 1975, pp. 53-55 (18).
- 10. H.K Verma, "A Simple Electronic Circuit for Temperature Measurement", Journal of Institution of Instrumentation Scientists and Technologists, vol. 4, no. 4, Oct. 1975, pp. 15-17 (20).
- 11. S.C. Saxena and H.K. Verma, "Urine Leakage Detector", Journal of Institution of Engineers (India), vol. 56, pt. IDGE, no. 2, Jan. 1976, pp. 36-38 (22).

- 12. H.K. Verma and T.S.M. Rao, "D.C. Supply for Static Relays from CTs and PTs", Journal of Institution of Engineers (India), vol. 57, pt. EL, no. 2, Oct. 1976, pp. 79-83 (24).
- 13. H.K. Verma and T.S.M. Rao, "A Note on Solid-State Integrating Demand Meter", Journal of Institution of Instrumentation Scientists and Technologists, vol. 6, no. 4, Oct. 1977, pp. 6-8 (28).
- 14. S. Mukhopadhyay and H.K. Verma, "An Electronic Energy Meter and its Remote Monitoring", Journal of Institution of Engineers (India), vol. 58, pt. ET, no. 3, Apr. 1978, pp. 75-79 (29).
- 15. H.K. Verma and T.S.M. Rao, "Solid-State Wrong-Phase-Coupling Relay for Protection of 25kV Traction System", I.E.E.E., P.E.S., Winter Meeting, Jan.-Feb. 1978 (30).
- 16. H.K. Verma and T.S.M. Rao, "Simpling Type Quadrilateral Distance Relay Using Operational Amplifiers", I.E.E.E., P.E.S., Winter Meeting, Jan.-Feb. 1978 (31).
- 17. H.K. Verma and T.S.M. Rao, "Novel Circuits Applying Operational Amplifiers for Sampling Distance and Directional Relays", Journal of Institution of Engineers (India), vol. 59, pt. EL, no. 1, Aug. 1978, pp. 27-33 (32).
- 18. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "A Microprocessor Based Under and Over Frequency Relay", Proceedings of National Systems Conference, Ludhiana, Sep. 4-6, 1978, pp. 107-110 *(34)*.
- 19. H.K. Verma, "Some Special-Purpose Comparator Circuits", Journal of Institution of Electronics and Telecom. Engineers, vol. 24, no. 12, Dec. 1978, pp. 556-558 *(35)*.
- 20. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "A Microprocessor Based Under-Frequency Relay with Decay Rate Compensation", Journal of Institution of Engineers (India), vol. 59, pt. EL, no. 4, Feb. 1979., pp. 208-211 (38).
- 21. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "Microprocessor Assisted Check Synchronizing", I.E.E.E., I.E.C.I., 5<sup>th</sup> Annual Conference on Industrial Control Applications of Micro-Processors, Philadelphia, U.S.A., March 19-21, 1979 (40).
- 22. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "A New Synchronizer for Small Power Houses", Proceedings of IFAC Symposium on Computer Applications in Large Power System, New Delhi, Aug. 16-18, 1979, vol. III, pp. 165-171 (43).

- 23. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "Inverse Time Over Current Relays Applying a Mircroprocessor", Proceedings of IFAC Symposium on Computer Applications in Large Power Systems, New Delhi, Aug. 16-18, 1979, vol. "Short Papers', pp. 16-17 (44).
- 24. H.K. Verma, "A Simple Phase-Sequence and Phase-Lead/Lag Detector", Journal of Institution of Electronics & Telecom. Engineers, vol. 25, no. 10, Oct. 1979, pp. 437-438 (45).
- 25. H.K. Verma and S. Mukherjee, "A Solid-State Lag-Type Demand Indicator", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 2, Oct. 1979, pp. 46-48 (46).
- 26. H.K. Verma and A.J. Kellogg, "Transient Torque and Speed Meter", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 3, Dec. 1979, pp. 108-111 (47).
- 27. H.K. Verma, "Novel Time-Lag Under Frequency and Over Frequency Relays", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 5, April 1980, pp. 205-207 (49).
- 28. H.K. Verma and E. Vasu, "Magnetic and Electric Wave Analyser Using Hall Devices", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 5, April 1980, pp. 220-223 (50).
- 29. P.K. Tandon and H.K. Verma, "Temperature Scanning of Machine Surfaces by Monitoring Infrared Radiations", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 5, April 1980, pp. 224-226 (51).
- 30. H.K. Verma & A.K. Ghai, "A Microprocessor-Bases Waveform Generator for Biomedical Application", Journal of Institution of Engineers (India), vol. 60, pt. ET, no. 3, April 1980, pp. 96-98 (52).
- 31. H.K. Verma and A.K. Saxena, "Electronic Methods for Automatic Testing of Energy Meters", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 5, April 1980, pp. 99-102 (53).
- 32. H.K. Verma, A.K. Ghai and A.K. Saxena, "A Novel Method of Testing Energy Meters Using Microprocessor", Journal of Institution of Engineers (India), vol. 60, pt. EL, no. 5, April 1980, pp. 103-105 (54).
- 33. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "Microprocessor Controlled Load Shedding and Restoration", I.E.E.E., P.E.S., Summer Meeting, July 1980 *(55)*.
- 34. H.K. Verma and P.K. Tandon, "A Novel Infrared Pyrometer", Transactions of Indian Institute of Metals, July 1980 (56).

- 35. H.K. Verma and E. Vasu, "Phase-Locked Loop for Generating Constant-Amplitude Synchronized Sinusoidal Signal", Journal of Institution of Engineers (India), vol. 61, pt. ET, no. 1, Aug. 1980, pp. 16-18 (57).
- 36. P.K. Tandon and H.K. Verma, "An Infrared Temperature Scanner", Journal of Institution of Engineers (India), vol. 6, pt. ET, no. 1, Aug. 1980, pp. 19-21 (58).
- 37. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "Microprocessor Based Directional Relay", Journal of Institution of Engineers (India), vol. 61, pt. EL, no. 2, Oct. 1980, pp. 43-45 (59).
- 38. A.K. Ghai, H.K. Verma and P. Mukhopadhyay, "Floating Integration Time Block Maximum Demand Indicator and Energy Meter", Journal of Institution of Engineers (India), vol. 61, pt. EL, no. 2, Oct. 1980, pp. 66-69 (60).
- 39. H.K. Verma and A.K. Saxena, "Electronic Test Scheme With Automatic error Computation for Energy Meters", Journal of Institution of Engineers (India), vol. 61, pt. EL, no. 3, Dec. 1980, pp. 107-110 (61).

- 40. G.C. Ray and H.K. Verma, "Interval Detector for Bio-Electric Signals", Journal of Institution of Engineers (India), vol. 61, pt. IDGE, no. 1-2, Oct. 1980- Feb. 1981, pp. 1-3 (62).
- 41. H. K. Verma and S.K. Verma, "Frequency Discriminator From a Common I.C. Package", Journal of Institution of Engineers (India), vol. 63, pt. ET, no. 1, Aug. 1982, pp. 37-38 *(63)*.
- 42. H.K. Verma, "Digital Bed and Water Level Monitor for Alluvial Channels", Journal of Institution of Engineers (India), vol. 63, pt. CI, no. 2, Sep. 1982, pp. 85-88 (64).
- 43. A.K. Ghai and H.K. Verma, "A New Quadrilateral Distance Relay Using Microprocessor", Journal of Institution of Engineers (India), vol. 63, pt. EL, no. 5, April 1983, pp. 215-219 (65).
- 44. V.N. Pande, H.K. Verma and P. Mukhopadhyay, "QRS-Complex and Baseline Determination with Microprocessor", Proc. Institute of Instrumentation Scientists and Technologists, vol. 5, no. 1-4, 1983, pp. 39-45 (66).
- 45. V.S. Julka and H.K. Verma, "Design and Testing of a Four-Step Sequence Controller Used to Simulate Desired Switching and Reswitching Conditions", BHEL Journal, vol. 5, no. 2, 1984, pp. 18-24 (67).

- 46. H.K. Verma and A.M. Basha, "Multistage Frequency Relay with Under-Voltage and Under-Load Blocking", JI. of Microcomputer Applications, vol. 7, no. 2, April 1984, pp. 159-166 (68).
- 47. V.N. Pande, H.K. Verma and P. Mukhopadhyay, "Characterization of QRS-Complex and its Detection with Microprocessor", JI. of Institute of Engineers (India), vol. 65, pt. IDGE, no. 2, Feb. 1985, pp. 39.44 (70).
- 48. A.K. Ghai and H.K. Verma, "Automatic Testing of Frequency Relays", Journal of Institution of Engineers (India), vol. 66, pt. EL, no. 1, Aug. 1985, pp. 12-17 (71).
- 49. A.M. Basha and H.K. Verma, "Microprocessor Based Load Shedding and Restoration Equipment", Journal of Institution of Engineers (India), vol. 66, pt. EL, no. 1, Aug. 1985, pp. 32-37 (72).
- 50. V.N. Pande, H.K. Verma and P. Mukhopadhyay, "Multitask Coronary Care Unit A Distributed Processing Approach", Journal of Microcomputer Applications, vol. 8, 1985, pp. 195-202 (73).
- 51. V.N. Pande, H.K. Verma and P. Mukhopadhyay, "Beside ECG Monitor Using Microprocessor", Medical and Biological Engg. & Computing, vol. 23, Sept. 1985, pp. 487-492 (74).
- 52. V.N. Pande, H.K. Verma and P. Mukhopadhyay, "Software Detection of ECG Baseline and QRS-Complex for Coronary Intensive Care", Journal of Microcomputer Applications, vol. 8, 1985, pp. 203-214 (75).
- 53. H.K. Verma, S. Mukherjee and P.K. Saha, "Microprocessor Based Controllers for Single and Multiple Batch Digesters for Pulping", Journal of Microcomputer Applications, vol. 9, 1986, pp. 179-195 (78).
- 54. H.K. Verma and A.M. Basha, "Transformer Differential Relay Based on Waveform Approach", Journal of Institution of Engineers (India), vol. 67, pt. EL, no. 3, 1986, pp. 132-137 (79).
- 55. H.K. Verma and A.M. Basha, "A Microprocessor Based Inrush-Restrained Differential Relay for Transformer Protection", Journal of Microcomputer Applications, vol. 9, 1986, pp. 313-318 (80).
- 56. H.K. Verma and A.M. Basha, "Microprocessor Based Variable-Bias Differential Relay for Bus-Bar Protection", Journal of Institution of Engineers (India), vol. 67, Pt. EL, no. 4, 1987, pp. 178-181 (82).
- 57. H.K. Verma and S.S. Chhajta, "Microprocessor Based Variable-Bias Differential Relay for Generator Protection", Journal of Microcomputer Applications, vol. 10, 1987, pp. 63-69 (83).

- 58. H.K. Verma and A.M. Basha, "Microprocessor Based Over Fluxing Relay for Generator-Transformer", Journal of Microcomputer Applications, vol. 10, 1987, pp. 229-236 (84).
- 59. H.K. Verma and G.C. Kakoti, "Simplified Fourier Coefficients for Distance Relaying", Journal of Microcomputer Applications, vol. 10, 1987, pp. 333-342 (87).
- 60. G.C. Kakoti and H.K. Verma, "New Algorithms for Digital Distance Relaying", Proceedings of International Conference on Power System Protection, Institution of Engineers (India), Bangalore, Jan. 11-13,1988, pp. C.6.1 C.6.5 (90).
- 61. H.K. Verma and S.C. Verma, "Zero Phase-Difference Check-Synchronizer Employing Microprocessor", Journal of Microcomputer Applications, vol. 11, 1988, pp. 67-74 *(91)*.
- 62. H.K. Verma and S.S. Chhajta, "Microprocessor Relaying for Generator Protection on Stator Asymmetrical Short-Circuits, Rotor Over Heating and Field Failure", Journal of Microcomputer Applications, vol. 11, 1988, pp. 117-126 (92).
- 63. G.C. Kakoti and H.K. Verma, "New Algorithms for Microprocessor Based Distance Relaying", Electric Power Systems Research, vol. 15, no. 3, 1988, pp. 233-238 (93).
- 64. H.K. Verma and K. Soundararajan, "Digital Differential Relaying for Generator Protection: Development of Algorithm and Offline Evaluation", Electric Power Systems Research, vol. 17, no. 2, 1989, pp. 109-117 (95).
- 65. H.K. Verma, P. Mukhopadhyay and V.N. Pande, "Microprocessor Controlled D.C. Cardioverter in Management of Critically Ill", Journal of Microcomputer Applications, vol. 12, 1989, pp. 333-341 (96).
- 66. H.K. Verma and G.C. Kakoti, "Algorithm for Harmonic-Restraint Differential Relaying Based on Discrete Hartley Transform", Electric Power Systems Research", vol. 18, no. 2, 1990, pp. 125-129 (98).
- 67. R.S. Anand, Vinod Kumar and H.K. Verma, "Ultrasonic Multi-Flaw Location Indicator", Journal of Institution of Engineers (India), vol. 70, pt. ET, no. 4, Feb. 1990, pp. 93-96 (99).
- 68. H.K. Verma and A.M. Basha, "Microprocessor Based Comprehensive Relaying Scheme for Power Transformer Protection", Electric Power Systems Research, vol. 19, no. 2, 1990, pp. 115-127 (100).

- 69. H.K. Verma and G.C. Kakoti, "Discrete Cosine Transform Application to Transformer Differential Relaying", Journal of Institution of Engineers (India), vol. 71, pt. EL, no. 2, June 1990, pp. 76-81 (101).
- 70. H.K. Verma and K. Soundrarajan, "Digital Differential Relaying for Generator Protection", Journal of Institution of Engineers (India), vol. 71, pt. EL, no. 2, June 1990, pp. 97-103 (102).

- 71. H.K. Verma and S.C. Verma, "Hydro-Set Start-Stop Sequencer using Microprocessor", Journal of Institution of Engineers (India), vol. 71, pt. EL, Feb. 1991, pp. 258-262 (105).
- 72. H.K. Verma, S. Mukherjee and P.K. Saha, "Microcomputer Control of Digesters for Paper Mills", Journal of Institution of Engineers (India), vol. 71, pt. PR, March 1991, pp. 67-72 (106).
- 73. K. Soundararajan and H.K. Verma, "Microcomputer Based Digital Differential Relaying for Generator Protection: Real Time Test Results", Electric Power Systems Research, vol. 20, 1991, pp. 237-243 (107).
- 74. H.K. Verma and M.M.S. Bharaj, "DCT Based Differential Relay for Improved Protection of Generators", JI. of Microcomputer Applications, vol. 14, 1991, pp. 379-385 (108).
- 75. H.K. Verma, Vinod Kumar and R.S. Anand, "Ultrasonic Imaging System for Flaw Characterization" JI. of Microcomputer Applications, vol. 15, 1992, pp. 79-87 (109).
- 76. H.K. Verma and S. Srivastava, "High-Accuracy Measurement of Low Frequencies Using an 8-Bit Microprocessor", Journal of Institution of Engineers (India), vol. 73, pp. ET, Aug. 1992, pp. 93-96 (110).
- 77. S.S. Mehta, S.C. Saxena and H.K. Verma, "Recognition of P&T Waves in Electrocardiograms using Fuzzy Theory", Proceedings of Regional Conference of Engineering in Medicine and Biology Society, IEEE, New Delhi, Feb. 1995, pp. 2.54-2.55. (111)
- 78. S.S. Mehta, S.C. Saxena and H.K. Verma, "Computer Aided Interpretation of ECG for Diagnostics", International Journal of Systems Science, vol. 27, no. 1, 1996, pp. 43-58. (116)
- 79. H.K. Verma and R.P. Maheshwari, "Adaptive Digital Differential Protection of Transformer: Improvement over Fixed-Bias Scheme", Journal of Institution of Engineers (India), vol. 76, Pt. EL, Feb. 1996, pp. 218-221. (117)

- 80. R.H. Chile, S.C. Saxena and H.K. Verma, "Algorithm for On-line Estimation of Parameters of Digital PID Controller", Proceedings of National Conference on Mathematics and its Applications in Engineering and Industry, Roorkee, 1996, pp. 214-221. (118)
- 81. H.K. Verma, S.C. Saxena and R.H. Chile, "Digital Adaptive Control Techniques in Process Industry Part II: Control Techniques", Electrical India, 31 July 1996, pp. 14-19. (120)
- 82. H.K. Verma, S.C. Saxena and R.H. Chile, "Digital Adaptive Control Techniques in Process Industry Part III: Comparative Study and Conclusions", Electrical India, 15 Aug.1996, pp. 19-25. (121)
- 83. R.P. Maheshwari and H.K. Verma, "Adaptive Digital Differential Relay with Over-excitation and Inrush Restraint", Electric Power Systems Research, vol. 41, 1997, pp. 175-184. (122)
- 84. G. Vijaya, Vinod Kumar and H.K. Verma, "Artificial Neural Network Based Wave- Complex Detection in Electrocardiograms", International Journal of Systems Science, UK, vol. 28, no. 2, 1997, pp. 125-132. (123)
- 85. P.K. Kulkarni, Vinod Kumar and H.K. Verma, "Direct Data Compression Techniques for ECG Signal: Effects of Sampling Frequency on Performance", International Journal of Systems Science, UK, vol. 28, no. 3, March 1997, pp. 217-228. (124)
- 86. P.K. Kulkarni, Vinod Kumar & H.K. Verma, "ECG Data Compression using Fast Walsh Transform and its Clinical Acceptability", International Journal of Systems Science, UK, vol. 28, no. 8, Aug. 1997, pp. 831-836. (125)
- 87. P.K. Kulkarni, Vinod Kumar and H.K. Verma, "Diagnostic Acceptability of FFT-Based ECG Data Compression", Journal of Medical Engg. and Tech., UK, vol.21, no.5, Sep.-Oct. 1997, pp. 185-189. (126)
- 88. G. Vijaya, Vinod Kumar and H.K. Verma, "Training Neutral Networks for Wave-Complex Detection in Electrocardiograms", Proceedings of National System Conference, Hyderabad, 1997. (127)
- 89. H.K. Verma and R.P. Maheshwari, "Intelligent digital differential relay for transformer protection", Journal of Institution of Engineers (India), vol. 78, Pt. EL, Dec. 1997, pp. 158-163. (128)
- 90. Ranjan Maheshwari, G. Vijaya, Vinod Kumar and H.K. Verma, "Signal analysis and a Heurologistic Interpretation of Multilead Electrocardiograms", International Journal of Systems Science, UK, vol. 29, no. 3, March 1998, pp. 323-334. (129)
- 91. G. Vijaya, Vinod Kumar and H.K. Verma, "ANN-based QRS-Complex Analysis of ECG", Journal of Medical Engg. & Tech., vol. 22, no. 4, July/Aug. 1998, pp. 160-167. (130)

- 92. R.P. Maheshwari and H.K. Verma, "Accuracy Improvement of Distance Relays through Adaptive Amplification", Proceedings of International Conference on Modern Trends in the Protection Schemes of Electric Power Apparatus and Systems, CBIP & CIGRE, New Delhi, 28-30 Oct. 1998, pp V-1 to V-9. (131)
- 93. P.K. Kulkarni, Vinod Kumar and H.K. Verma, "Computer Based Systematized Approach for ECG Boundary Detection", Proceedings of 23<sup>rd</sup> National Systems Conference, Varanasi, 9-11 Dec. 1999, pp. 253-257. *(132)*
- 94. S.A. Lone, Vinod Kumar and H.K. Verma, "Analysis of Signal-Averaged ECG in Time and Frequency Domain for Detection of Late Potential in Patient Prone to Vertical Tachycardia", Proceedings of Seminar on Medical Diagnostics Techniques & Procedures, 2000, pp. 38-42. (133)
- 95. S.C. Saxena, H.K. Verma and R.H. Chile, "Application of Combined Direct and Indirect Adaptive Control Algorithm for Temperature Control of Counter-Flow Heat Exchanger", IETE Journal of Research, vol. 46, no. 4, July-Aug. 2000, pp. 265-275. (134)

- 96. H.K. Verma and Vinod Kumar, "Digital Instrumentation for Bridges–Possibilities and Limitations", Proceedings of National Workshop on Research Interests in Bridge Engineering Present and Future, New Delhi, March 15, 2001, pp. 135 142. (137)
- 97. S.C. Saxena, H. K. Verma and R.H. Chile, "Modified Approach to Model–Reference Adaptive Controller", Journal of Institution of Engineers (India), vol. 82, pt. ET, July 2001, pp. 43 54. (138)
- 98. H.K. Verma and Vinod Kumar, "Remote Monitoring of Bridge Structures: Instrumentation and Internet Access", Bridge Engineering: Some Issues of Research Interest, Roorkee, June 2002, pp. 227 240. (139)
- 99. K. Upendra, Harsimrat Singh, Vinod Kumar and H. K. Verma, "Information Security through Biometrics", Proceedings of National Conference on Research and Practices in Current Areas of Interest (RPIT 2004), SLIET Longowal, March 26 27, 2004, pp. 102 106. (140)
- 100. H.K. Verma, N.M. Bhandari, Vinod Kumar, Pradeep Bhargava, A.K. Dwivedi and Amit A. Linge, "Instrumentation of Bridges for Monitoring Thermal Gradients: Laboratory Model Studies", Highway Research Bulletin No. 70, 2004, pp. 167-180. *(141)*

- 101. H.K. Verma and Arun Kumar, "Instrument Networking for Efficiency Measurement in Small Hydro Power Stations", Proceedings of IGHEM–2004, Proceedings of International Conference for Innovation in Hydraulic Efficiency Measurement, Lucerne, Switzerland, July 14–16, 2004, Paper No. 1. (142)
- 102. Sukhwinder Singh, Vinod Kumar and H.K. Verma, "Removing Blocking Artifacts in Compressed Medical Images", Proceedings of 1st International Bio–Engineering Conference (IBEC–2004), NTU, Singapore, Sept 8–10, 2004, pp 101-104. (143)
- 103. H.K. Verma, "Performance Testing of SHP Stations: Scope, Tests and Methodology", Proceedings of Workshop on Performance Testing of SHP Stations, Roorkee, Oct. 7–9, 2004, Paper No. 2. (144)
- 104. H.K. Verma, "Current Meters and IEC Provisions", Proceedings of Workshop on Performance Testing of SHP Stations, Roorkee, Oct. 7–9, 2004, Paper No. 10. (145)
- 105. Manoj Tripathy, R.P. Maheshwari, H. K. Verma, "Advances in Transformer Protection: A Review," Electric Power Components & Systems, USA, 2005, vol. 33, No.11, pp.1203 1209. (146)
- 106. Roop Pahuja, H.K. Verma and Vinod Kumar, "Virtual Instrument for Real Time Monitoring and Control of Temperature", Proceedings of the International Conference on Emerging Technologies in Intelligent Systems and Control: Exploring, Exposing and Experiencing the Emerging Technologies (EISCO 2005), Coimbatore, January 5–7, 2005, vol. 1, pp. 276-282. (147)
- 107. Arun Kumar and H. K. Verma, "Standards and Testing of Small Hydropower Stations", Proceedings of the International Congress on Renewable Energy, Pune, Jan. 20–22, 2005, pp. 1-9. (148)
- 108. H. Sinvhal, H.K. Verma, A.K. Pant, V.K. Nangia, J.D. Sharma and Vinod Kumar, "Public Private Partnership in e-Governance: The Uttaranchal Experience", Proceedings of the International Conference on E-Governance in the Developing World: Best Practices and Critical Success Factors (eGov-2005), Hyderabad, July 29-31, 2005, pp. 1-8. (149)
- 109. Sukhwinder Singh, Vinod Kumar and H.K. Verma, "Adaptive Threshold for Block Classification for DCT–Based Medical Image Compression", Proceedings of 3<sup>rd</sup> International Conference on Computer Application in Electrical Engineering–Recent Advances (CERA 05), IIT Roorkee, Sept 29–Oct.1, 2005, vol. I, pp. 475-478. *(150)*
- 110. Manoj Tripathy, R.P. Maheshwari and H. K. Verma, "RBFNN Algorithm for Power Transformer Protection," Proceedings of International Conference on Computer Applications in Electrical Engineering Recent Advances (CERA 05), IIT Roorkee, Sept. 29 Oct. 1, 2005, vol. I, pp.589-592. (151)

- 111. Manoj Tripathy, R.P. Maheshwari and H. K. Verma, "Advances in Transformer Protection: A Review", Electric Power Components and Systems, 2005, pp.1203-1209. (152)
- 112. Prem V.K. Mandimala, H.K. Verma and Arun Kumar, "Accuracy Improvement of Numerical Integration for Discharge Calculation from Multi-path UTTF Measurement," International Conference on Computer Applications in Electrical Engineering Recent Advances (CERA 05), IIT Roorkee, Sept. 28 Oct. 1, 2005, vol. II, Paper No. 298. (153)
- 113. Roop Pahuja and H.K. Verma, "RS–485 Network Based Virtual Instrumentation System for Data Monitoring Applications", Proceedings of National Conference on Sensors NCS-2005, TIET, Patiala, Nov. 25-26, 2005, pp. 179-182. (154)
- 114. Vinod Kumar, Ranjan Maheshwari and H. K. Verma, "Toxicity and Symptomatic Identification of Species involved in Snakebites in the Indian Subcontinent", J. Venom. Anim. Toxins including Tropical Disease, vol. 12, No. 1, Feb., 2006, pp. 3-18. (155)
- 115. M.P.S. Chawla, H.K. Verma and Vinod Kumar, "A New Approach to ECG Modeling using Principal Component Analysis", Proceedings of the National Conference, NCCCB–2006, Engineering College, Kota, March 8–10, 2006, Paper No. 042. (156)
- 116. Manoj Tripathy, R.P. Maheshwari and H.K. Verma, "Power Transformer Protection Based on HMM and ANN Technique", Proceedings of the National Conference on Technical Challenges in Power Systems, KNIT, Sultanpur, March 24-25, 2006, pp. 157-162. (157)
- 117. Ranjan Maheshwari, Vinod Kumar and H.K. Verma, "Toxicity and Symptomatic Identification of Species Involved in Snakebites in the Indian Subcontinent", Journal of Venomous Animals and Toxins Including Tropical Diseases, vol.12, No. 1, 2006, pp. 3-18. (158)
- 118. Arun Kumar and H.K. Verma, "Standards and Performance Testing for Small Hydropower Development", Workshop on Development of Small, Mini & Micro Hydropower Plants-Challenges & Related Issues, Central Board of Irrigation & Power, New Delhi, June 16, 2006. (159)
- 119. M.P.S. Chawla, H.K. Verma and Vinod Kumar, "ECG Modeling and QRS Detection Using Principal Component Analysis", 3rd International Conference on Advances In Medical, Signal and Information Processing, MEDSIP 2006, Glasgow, UK, July 17-19, 2006, Paper No. 04. (160)
- 120. Arun Kumar and H.K. Verma, "Standards and Guidelines for Small Hydropower Development: The Indian Initiative," Proceedings of Himalayan Small Hydropower Summit (HSHS), Dehradun, Oct. 12-13, 2006, pp. 310-316. *(161)*

- 121. Manoj Tripathy, R. P. Maheshwari, H. K. Verma, "HMM Based Technique Operating Condition Detection, Proceedings of International Conference on Large Power Transformers Modern Trends in Application, Installation, Operation and Maintenance (CIGRE), pp. 21-34, Oct. 12-13, 2006, New Delhi. (162)
- 122. M.P.S. Chawla, H.K. Verma and Vinod Kumar, "Modeling and Feature Extraction of ECG Using Independent Component Analysis", Advances in Power Systems Controls and Management Systems, 7<sup>th</sup> IEE International Conference on Advances in Power System Control, Operation and Management, APSCOM-2006, Hongkong, Oct. 31-Nov. 2, 2006, Paper No. 040, pp. 14-18. *(163)*
- 123. M.P.S. Chawla, H.K. Verma and Vinod Kumar, "Independent Component Analysis: A Novel Technique for Removal of Artifacts and Base Line Wander in ECG", Third Control Instrumentation System Conference (CISCON-2006), Manipal, Nov. 3-4, 2006, Paper no. 09. (164)
- 124. Manoj Tripathy, R. P. Maheshwari, H. K. Verma, "Application of BPNN for Power Transformer Protection", Proceedings of 14<sup>th</sup> National Power Systems Conference, Indian Institute of Technology Roorkee, December 27-29, 2006, Paper no. 94. **(165)**
- 125. Manoj Tripathy, R. P. Maheshwari and H. K. Verma, "PSO Based Probabilistic Neural Network for Power Transformer Protection", Proc. of IEEE International Conference on Industrial Technology, December 15-17, 2006, Mumbai, pp. 70-71. (166)
- 126. Sukhwinder Singh, Vinod Kumar and H.K. Verma, "Reduction of Blocking Artifacts in JPEG Compressed Images", Journal of Digital Signal Processing, vol.17, No. 1, Jan. 2007, pp. 225-243. (167)
- 127. K. Upendra, Sukhwinder Singh, Vinod Kumar and H.K. Verma, "Online Fingerprint Verification", Journal of Medical Engineering and Technology, vol.31, No. 1, Jan. 2007, pp. 36-45. (168)
- 128. Manoj Tripathy, R. P. Maheshwari and H. K. Verma, "Application of Probabilistic Neural Network for Differential Relaying of Power Transformer", Proceedings IET, Generation, Transmission & Distribution, vol. 1, no. 2, March 2007, pp. 218-222. (169)
- 129. Sukhwinder Singh, Vinod Kumar and H.K. Verma, "DWT-DCT Hybrid Scheme for Medical Image Compression", Journal of Medical Engineering and Technology, vol. 31, issue 2, March 2007, pp. 109-122. (170)
- 130. Sukhwinder Singh, Vinod Kumar and H.K. Verma, "Optimization of Block Size for DCT-Based Medical Image Compression", Journal of Medical Engineering and Technology, vol. 31, issue 2, March 2007, pp. 129-143. (171)

- 131. Sukhwinder Singh, Vinod Kumar and H.K. Verma, "Adaptive Threshold Based Block Classification in Medical Image Compression for Teleradiology", Computer in Biology and Medicine, vol. 37, 2007, pp. 811-819. (172)
- 132. Ranjan Maheshwari, Vinod Kumar and H.K. Verma, "Neural Network Based Species Identification in Venom Interacted Cased in India, accepted 2007, published online. (173)
- 133. Manoj Tripathy, R.P. Maheshwari and H.K. Verma, "Probabilistic Neural Network Based Protection of Power Transformer" Proceedings IET Electric Power Applications, vol. 1, no. 5, September 2007, pp. 789-798. (174)
- 134. H.K. Verma and Arun Kumar, "Performance Testing and Evaluation of Small Hydropower Plants", Proceedings of the International Conference on Small Hydropower, Kandy, Sri Lanka, Oct. 22-24, 2007, pp 197-205 (175).
- 135.B.K. Gandhi and H.K. Verma, "Simultaneous Multi-point Velocity Measurement using Propeller Current Meters for Discharge Evaluation in Small Hydro Power Stations", Proceedings of the International Conference on Small Hydropower, Kandy, Sri Lanka, Oct. 22-24, 2007, pp 215-223 (176).
- 136. Arun Kumar and H.K. Verma, "Indian Initiative to Develop Standards, Guidelines and Manuals for Small Hydropower", Proceedings of the International Conference on Small Hydropower, Kandy, Sri Lanka, Oct. 22-24, 2007, pp 461-467 (177).
- 137. Manoj Tripathy, R.P. Maheshwari and H.K. Verma, "Radial Basis Probabilistic Neural Network for Differential Protection of Power Transformer" Proceedings IET Generation, Transmission and Distribution, vol. 2, no. 1, January 2008, pp. 43-52 (178).
- 138. Manoj Tripathy, R.P. Maheshwari and H.K. Verma, "Neuro-Fuzzy Technique for Power Transformer Protection" International Journal of Electric Power Components and Systems, Taylor and Francis, vol. 36, no. 3, March 2008, pp. 299-316 (179).
- 139.B.K. Gandhi, H.K. Verma and S.S. Patnaik, "Discharge Measurement in Small Hydropower Stations using Acoustic Doppler Current Profiler", Proceedings of 7<sup>th</sup> International Conference on Hydraulic Efficiency Measurements, IGHEM 2008, Milano, Italy, Sept. 3-6, 2008, Paper no. 3.2 (180).
- 140. H.K. Verma, H. Sinvhal, V.K. Nangia, J.D. Sharma, Vinod Kumar and A.K. Pant "Citizen-Centric e-Governance Project in Uttarakhand, India", The Journal of Community Informatics, Special Issue on E-Governance and Community Informatics, vol. 4, no. 2, 2008, pp. 1-7 (181).

- 141. Hari Babu Srivastava, Vinod Kumar, H.K. Verma and S.S. Sundaram "Image Pre-processing Algorithms for Detection of Small/Point Airborne Targets", Defence Science Journal, DESIDOC, vol. 59, no. 2, March 2009, pp. 166-174 (182).
- 142. Bhavesh Bhajla, R.P. Maheshwari, Saurabh Nema and H.K. Verma, "Neuro-fuzzy-based Scheme for Stator Winding Protection of Synchronous Generator", vol. 37, no. 5, May 2009, pp. 560-576 (183).
- 143. Manoj Tripathy, R.P. Maheshwari and H.K. Verma, "Power Transformer Differential Protection Based on Optical Probabilistic Neural Network", IEEE Transactions on Power Delivery, January 2010, Vol. no. 25 (184).
- 144. Neelam Verma, H.K. Verma and R.P. Maheshwari, "Hotel Building Automation for Optimizing Energy Efficiency and Guest Comfort", Proceedings of the National Conference on Computing, Communication and Control (CCC-2009), UIET 2009, Chandigarh, Oct. 23-24, 2009, Paper no. CCC-09-35 (185).
- 145. Roop Pahuja, H.K. Verma and Moin Uddin, "WSN Application for Power-Aware Data Acquisition and Transmission", Proceedings of National Conference on Computer Communication & Control (CCC-09), UIET Chandigarh, Oct. 23-24, 2009, pp. 109-114 CCC-09-93 (186).
- 146. Jignesh G. Bhatt and H.K. Verma, "RS-485/Modbus based Intelligent Building Automation System using LabView", Proceedings of 4<sup>th</sup> International Conference on Computer Applications in Electrical Engineering Recent Advances (CERA-2009), IIT Roorkee, Feb. 19-21, 2010, Paper no. 04 (187).
- 147. Mrutyunjay Rout and H.K. Verma, "A Test-Bed Application of Analog and Digital Sensor for Wireless Sensor Networks", Proceedings of National Conference on Computational Instrumentation, CSIO Chandigarh, March 19-20, 2010, pp 134-137 (188).
- 148. Shantaram S. Patil, H.K. Verma and Arun Kumar, "Efficiency Measurement of Hydro Machine by Thermodynamic Method", IGHEM-2010, AHEC, IIT Roorkee, Oct. 21-23, 2010, pp 181-189 (189).
- 149. B.K. Gandhi, H.K. Verma and Boby Abraham, "Investigation of Flow Profile in Open Channels using CFD", IGHEM-2010, IIT Roorkee, Oct. 21-23, 2010, pp 243-251 (190).
- 150. Roop Pahuja, H.K. Verma and Moin Uddin, "Design and Implementation of VI Tool for WSN Applications", Proceedings of the World Congress on Engineering and Computer Science 2012, WCECS 2010, San Francisco, USA, October 20-22, 2010, pp 838-843(191).

151. Neelam Verma, H.K. Verma and R.P. Maheshwari, "Energy Efficiency Gain in Building through Automatic Lighting Control", Proceedings of International Conference ICAECT-2010, Manipal, Paper No. 013 (192).

### **2011 Onward**

- 152. Mrutyunjay Rout and H.K. Verma, "Integration of Wireless Sensor Networks and RFID for Effective Management of Library Assets", International Conference on Electronic Systems, NIT Rourkela, January 7-9, 2011 (193).
- 153. Arun M. Dongardive, H.K. Verma and Vinod Kumar, "Energy Optimization of Turbine Test Laboratory and Building", Proceedings of Seminar on Energy Management in Buildings and Services, Military Engineer Services, Bareilly, Feb. 4, 2011, pp. 68-81 (194).
- 154. Roop Pahuja, H.K. Verma and Moin Uddin, "Design and Implementation of Fuzzy Temperature Control VI System for WSN Applications", International Journal of Computer Science and Network Security, Feb. 2011, vol. 11, no. 2, pp 1-10 (195).
- 155. Viral Shah, H.K. Verma and M.L. Dewal, "FF Based Instrumentation and Control System for Turbine Test Laboratory", Proceedings of International Conference on Communication Systems and Network Technologies, 2011, pp 402-405 (196).
- 156. S.S. Patnaik, H.K. Verma and B.K. Gandhi, "New Technology for Discharge Measurement at Small Hydro Stations", Hydropower & Dams, issue 5, 2011, pp 103-108 (197).
- 157. Roop Pahuja, H.K. Verma and Moin Uddin, "Design and Implementation of GUSNI 1.1: VI Tool for WSN Data Monitoring Applications", Journal of Communication and Computer, vol. 8, no. 7, July 2011, pp. 550-559 (198)
- 158. A. Sharma, P.S. Chani, A.M. Dongardive and H.K. Verma, "Energy Performance Analysis of a Hydro-Turbine Test Lab An Architectural Approach", Proceedings of IEEE Conference on Sustainable Utilization and Development in Engineering and Technology, Kuala Lumpur, 6-9 Oct. 2012, pp. 63-67 (199)
- 159. Utsav Bhatt, H K Verma and Arun Kumar, "Automation and Remote Control of Volumetric Calibrator using RS-485/MODBUS Protocol", Proceedings of IEEE 2<sup>nd</sup> International Conference on Power, Control and Embedded Systems (ICPCES), Allahbad,17-19 Dec. 2012, pp. 1-6 (200)
- 160. Roop Pahuja, H.K. Verma and Moin Uddin, "A Wireless Sensor Network for Greenhouse Climate Control", IEEE Pervasive Computing, vol.12, issue 2, April-June 2013, pp. 49-58 (201)

- 161. Ranjan Maheshwari, Vinod Kumar and H.K. Verma, "Species-Specific Venom Manifestations in ECG", Proceedings of 40<sup>th</sup> International Congress on Electrocardiology (ICE-2013), University of Glasgow, Glasgow, Scotland, Aug. 7-10, 2013, pp. 41-47 (202)
- 162.B.K. Gandhi, Arun Kumar and H.K. Verma, "Discharge and Efficiency Measurements in Bassi Hydro-Power Station in India", Proc. 10th Intl. Conference on Hydraulic Efficiency Measurement, IGHEM-2014, Itajuba-MG, Brazil, Sep. 16-18, 2014 (203)
- 163. Roop Pahuja, Harish Kumar Verma and Moin Uddin, "Implementation of greenhouse Control simulator based on Dynamic Model and Vapor Pressure Deficit Controller", Engineering in Agriculture, Environment and Food (an Elsevier journal), vol. 8, 2015, pp 273-288 (204)
- 164. Jignesh Bhatt and H.K. Verma, "Design and Development of Wired Building Automation Systems", Energy and Buildings (an Elsevier journal), vol. 103, 2015, pp. 396-413 (205)
- 165. Umar Shuaibu, H.K. Verma, Rabiu Aliyu Abdulkadir and C. Mohan, "Design and Development of Intelligent Electronic Travelling Aid for Visually Impaired (IETA-VI)", International Journal of Research in Engineering and Technology (IJRET), vol. 04, issue 11, November 2015, pp. 340-348, available online at <a href="http://www.ijret.org">http://www.ijret.org</a> (206)
- 166. Aminu Tijjani, H.K. Verma and Chhaya Sharma, "Development of Improved PID Controller for Single-Effect Evaporator", International Journal of Research in Engineering and Technology (IJRET), vol. 05, issue 01, January 2016, pp. 1-4, available online at <a href="http://www.ijret.org">http://www.ijret.org</a> (207)
- 167.B.K. Gandhi, H.K. Verma and Boby Abraham, "Mathematical Modeling and Simulation of flow-Velocity Profile for Rectangular Channels", ISH Journal of Hydraulic Engineering (Taylor & Francis), vol. 23, no. 2, 2016, pp. 1-11 (208)
- 168. Farhana Fayaz, Abubakar Isa, H.K Verma and Soma Deb, "Improved ANN-Based Algorithm for Detection and Classification of Faults on Transmission Lines", Proc. India International Conference on Information Processing (IICIP-2016), New Delhi, August 12-14, 2016, paper no. 395 *(209)*
- 169. Suman Lata, H K Verma and Shreya Mohan, "Recording Temporal and Spatial Variations in Greenhouse using WSN", Proc. IEEE-Sponsored International Conference on Quality, Productivity, Reliability, Optimization and Modeling (ICQPROM 2017), Faridabad, January 5-7, 2017, pp. 1-4 (210)
- 170. Farhana Fayaz, Sujit Kumar, H.K. Verma and Soma Deb "Simulation of Various Faults on Transmission Line with Static VAR Compensator", Proc. IEEE-Sponsored International Conference on Quality, Productivity, Reliability, Optimization and Modeling (ICQPROM 2017), Faridabad, January 5-7, 2017, pp. 272-277 (211)
- 171. Soma Deb and H.K. Verma, "Modeling, Simulation and Signal Analysis for Faults on Two-Terminal HVDC Transmission System", Proc. IEEE-Sponsored International Conference on Quality,

Productivity, Reliability, Optimization and Modeling (ICQPROM 2017), Faridabad, January 5-7, 2017, pp. 285-291 (212)

172. Shreya Mohan, Suman Lata and H.K. Verma, "Design and Simulation of Temperature and Luminosity Controllers for Green House using LabVIEW", Proceedings of IEEE-Sponsored International Conference on Quality, Productivity, Reliability, Optimization and Modeling (ICQPROM 2017), Faridabad, January 5-7, 2017, pp. 303-308 (213)

173.....