

**VIVEK KUMAR VERMA**

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**EARLIER POSITION****National Post-Doctoral Fellow (NPDF)** at Samtel Centre for Display Technologies, Indian Institute of Technology, Kanpur-208016, India.**EDUCATIONAL CREDENTIALS**

Examination	Board/University	Subjects
High School	UP Board, Allahabad.	Hindi, English, Mathematics, Science, Social Science, Biology
Intermediate	UP Board, Allahabad.	General Hindi, English, Mathematics, Physics, Chemistry
BSc	CSJM University, Kanpur.	Physics, Mathematics, Chemistry
MSc	University Institute of Engineering & Technology, CSJM University, Kanpur.	Electronics
PhD	Institute of Science, Banaras Hindu University, Varanasi.	Electronics

**TOPIC OF RESEARCH** "Studies on Stochastic Resonance in Nonlinear Sensors"**SUPERVISOR** Prof. R.D.S. Yadava, Department of Physics, Institute of Science, Banaras Hindu University, Varanasi, India**FATHER'S NAME** Shri Rajendra Prasad Verma**MOTHER'S NAME** Smt. Saroj Verma**PERMANENT ADDRESS** 188-Shyam Nagar, Lakhimpur Kheri, UP-262701.

**RESEARCH INTEREST** My study focused on Studies on Stochastic Resonance in Nonlinear Sensors. My work plan consisted of identifying some physical and chemical sensors whose responses to stimuli are nonlinear, and then explore stochastic resonance in them with the objective to boost their performance and to investigate the stochastic resonance conditions in polymer functionalized surface acoustic wave (SAW) and microelectromechanical system (MEMS) cantilever sensors. The goal of work had been to develop novel sensor design methods using stochastic resonance for polymeric sensor performance optimization.

**RESEARCH PUBLICATIONS***1. Stochastic resonance in MEMS capacitive sensors***ARTICLE** in SENSORS AND ACTUATORS B CHEMICAL 235 (2016) 583-602**Impact Factor: 7.34** ISSN: 09254005 doi:10.1016/j.snb.2016.05.110*2. A diffusion limited sorption-desorption noise model for polymer coated SAW chemical sensors***ARTICLE** in SENSORS AND ACTUATORS B CHEMICAL 195 (2014) 590-602**Impact Factor: 7.34** ISSN: 09254005 doi:10.1016/j.snb.2014.01.067*3. Stochastic resonance in polymer coated SAW sensors induced by nonlinear viscoelastic effects***CONFERENCE PAPER** · JANUARY 2011

Conference: NSPTS-16, Proceedings of 16th National Seminar on Physics &amp; Technology of Sensors, Feb 11-13, 2011, Lucknow Journal of Science, Vol. 8, No.1, 2011

Print ISSN :0974-8121 Online ISSN:0974-813X

*4. Quantitative Recognition of Volatile Organics by Fuzzy Inference System Based on Discrete Wavelet Transform of SAW Sensor Transients***CONFERENCE PAPER** · JULY 2014

DOI: 10.1109/ICSPCT.2014.6884891

Conference: IEEE International Conference on Signal Propagation and Computer Technology (ICSPCT), 2014, At Ajmer

*5. Wavelet and PLSR Based Simulation Study of Identification and Quantification of Organic Vapours by Saw Sensor Transients***CONFERENCE PAPER** · MAY 2013

Conference: NCCC, Teerthanker Mahaveer University, Moradabad

*6. Sensing Cycle Based Information Fusion for Improving the Chemical Identification Efficiency by SAW Sensor Transients***CONFERENCE PAPER** · MAY 2013

Conference: NCFTEC, Teerthanker Mahaveer University, Moradabad

*7. Stochastic Resonance in Bagley-Torvik Equation***CONFERENCE PAPER** · SEP 2017

Conference: First International Conference on Advance Computational and Communicational Paradigms (ICACCP) Sept 08-10, 2017, Department of Computer Science and Engineering, SMIT, Sikkim, India.

Springer Proceedings, Volume on Lecture notes in Electrical Engineering (LNEE), (Paper ID-480)

**DECLARATION**

I hereby declare that above written particulars are true to the best of my knowledge and belief.

(VIVEK KUMAR VERMA)