

## **Shalini Prasad, Ph.D.**

### **Professional Preparation**

B.E., Electronics and Communication Engineering, 2000  
Department of Electronics and Communication Engineering, Madras University, Madras,  
Tamil Nadu, India

Ph.D., Electrical Engineering, 2004  
Department of Electrical Engineering, University of California, Riverside, California

### **Appointments**

2008-Present, Research Assistant Professor, Department of Electrical Engineering, Arizona  
State University, Tempe, AZ

2009- Present, Adjunct Associate Professor, Department of Physics, Portland State  
University, Portland, OR

2008-Present, Adjunct Assistant Professor, Department of Electrical and Computer  
Engineering Portland State University, Portland, OR

2005-2008 Assistant Professor, Department of Electrical and Computer Engineering  
Portland State University, Portland, OR

2005-present, Adjunct Assistant Professor, Department of Biomedical Engineering, Oregon  
Health and Sciences University, Portland, OR

2001-2004 Graduate Research Assistant, Department of Electrical Engineering  
University of California, Riverside

2001-2003 Graduate Teaching Assistant, Department of Electrical Engineering,  
University of California, Riverside

### **Journal Publications**

1. V. L. Venkatraman, R. K. Reddy, F. Zhang, D. Evans, B. Ulrich, and **S. Prasad** "Iridium  
oxide nanomonitors: Clinical diagnostic devices for health monitoring systems", *Biosensors  
and Bioelectronics*, Volume 24(10), 3078-3083 (2009)

2. S. Gupta, S.V.N.T. Kuchibhatla, M.H. Engelhard, V. Shutthanandan, P. Nachimuthu, W.  
Jiang, L.V. Saraf, S. Thevuthasan, and **S. Prasad**" Influence of samaria doping on the  
resistance of ceria thin films and its implications to the planar oxygen sensing devices",  
*Sensors and Actuators B: Chemical*, Volume 139( 2), 380-386 (2009)

3. S. Devabhaktuni and **S. Prasad** "Nanotextured Organic Light Emitting Diode Based  
Chemical Sensor", *Journal of Nanoscience and Nanotechnology*, Vol.9, 1-8, (2009)

4. D. Meka, L. George, S. Prasad, Triethanolamine Nanocomposite based Chemiresistive Nitrogen Dioxide Gas Sensor, *Journal of Assoc. of Lab Automation*, 14(2), 69-75, (2009)
5. M. Bothara, V. Venkatraman, R. K. K. Reddy, T. Barrett, J. Carruthers, **S. Prasad**, "Nanomonitor: electrical immunoassays for protein biomarker profiling", *Nanomedicine*, 3(4), 423-436 (2008)
6. R. K. Reddy, M. G. Bothara, T. W. Barrett, J. Carruthers, and **S. Prasad**, Nanomonitor: Protein Biosensors for Rapid Analyte Analysis, *IEEE Sensors Journal*, 8(6), 720-723,(2008)
7. F. Zhang, B. Ulrich, R. K. Reddy, V. L. Venkataraman, **S. Prasad**, T.Q. VU, and S.-T. Hsu, Fabrication of Submicron IrO<sub>2</sub> Nanowire Array Biosensor Platform by Conventional Complementary Metal–Oxide– Semiconductor Process, *Japanese Journal of Applied Physics* 47(2), 2008, 1147–1151,(2008)
8. S. K. Padigi, V. Kunduru and **S. Prasad**, "Multi-walled carbon nanotubes based aromatic hydrocarbon sensor using electronic dipole spectroscopy", Special Issue: Design and Development of Novel Analytical Devices and Related Applications *Chemical Engineering Communications*, 195 (2), 115-128 (2008).
9. R.K.K. Reddy, **S. Prasad**, T. Barrett, J. Carruthers, "Electrical Immunoassays towards clinical diagnostics: Identification of Vulnerable cardiovascular plaque," *Journal of the Association for Laboratory Automation*, 13 (1), 33-39, (2008).
10. Y. Yadav, **S. Prasad**, X. Song, "Multiwalled carbon nanotube cross-bar junction formation via microcontact printing, *Journal of the Association for Laboratory Automation* 13(1), 49-53 (2008)
11. Y. Yadav, S. K. Padigi, **S. Prasad**, and X. Song, "Towards Crossbar Nanoarray Structure Via Micro contact Printing," *Journal of Nanoscience and Nanotechnology*, 8, 1–8, (2008)
12. V. Kunduru and **S. Prasad**, " Electrokinetic Formation of "Microbridges for Protein Biomarkers as Sensors," *Journal of Association of Lab Automation*, 12 (5), 311–317, (2007)
13. **S. Prasad** and J. Quijano, "Nanoporous non-invasive cellular electrical activity based analysis devices," *Clinics in Laboratory Medicine*, 27(1), 75-90, (2007)
14. S. P. Padigi, R. K. Reddy and **S. Prasad**, Carbon nanotube based aliphatic hydrocarbon sensor, *Biosensors and Bioelectronics*, 22(6), 829-837 (2007)
15. **S. Prasad**, and J. Quijano, Development of nanostructured biomedical micro-drug testing device based on in situ cellular activity monitoring, *Biosensors and Bioelectronics* 21(7), 1219– 1229, (2006)

16. **S. Prasad** and J. Quijano, Nanoporous Noninvasive Cellular Electrical Activity-Based Analysis Devices, *J. Association Lab Automation*, 11, 65-74, (2006)
17. **S. Prasad**, E. Tuncel and M. Ozkan, Association of different prediction methods for determination of the efficiency and selectivity on neuron-based sensors, *Biosensors and Bioelectronics*, 21(7), 1045-1058, (2006)
18. S.P. Padigi, K. Asante, V. S. R. Kovvuri, R. K. Reddy, A. La Rosa and **S. Prasad**, Microphotonic cylindrical waveguide based protein biosensor, *J.Nanotechnology* 17, 4384-4390, (2006).
19. X. Zhang, **S. Prasad**, S.Niyogi, A.Morgan, R.Haddon, M.Ozkan, and C.S.Ozkan. Hybrid neurite growth on patterned carbon nanotube substrates, *Sensors and Actuators B*, 106 843-850,(2005)
20. M. Yang, **S. Prasad**, X. Zhang, A. Morgan, M. Ozkan, C.S. Ozkan, Cascaded Chemical Sensing using a Single Cell as a Sensor, *Sensor Letters* 2, 1-8 (2004)
21. **S. Prasad**, M.Yang, X.Zhang, C.S.Ozkan and M.Ozkan. Neurons as Sensors: Individual and Cascaded Chemical Sensing. *Biosens.Bioelectronics*. 19(12), 1599-1610 (2004)
22. **S. Prasad**, X. Zhang, M. Yang, Y. Ni, V. Parpura, C.S. Ozkan and M. Ozkan. Separation of individual neurons using dielectrophoretic alternating current fields *Journal of Neuroscience Methods*. 135(1-2), 79-88 (2004).
23. **S. Prasad**, and M.Ozkan. Cell Based Microarray Sensors for Environmental Sensing. *Electrophoresis*, 25 (21-22, 3746-3760. (2004).
24. M.Yang, **S. Prasad**, X.Zhang, A.Morgan, M.Ozkan, and C.S.Ozkan. Cellular Microarrays for Chemical Sensing. *Sensors and Materials* 15(6), 313-333 (2003)
25. **S. Prasad**, M.Yang, X.Zhang, C.S.Ozkan and M.Ozkan. Patterned Live Neural Networks by Induced Electrical Fields for Bio-sensing, *JALA*, 8(2) 81-85 (2003) (Cover Story)
26. **S. Prasad**, M.Yang, X.Zhang, C.S.Ozkan and M.Ozkan. Electrical field assisted patterning neuronal networks for the study of brain functions. *Journal of Biomedical Micro devices* 5(2),125-137 (2003).

### **Conference Proceedings**

1. V. Venkatraman, R.K.K. Reddy, F. Zhang, D. Evans, S.T. Hsu, B. Ulrich, and **S. Prasad**, "A Comparative Analysis of Iridium Oxide Nanowires in Electrical Detection of Biochemical Reactions," Materials Research Society 1095-EE08-22(2008)
2. Y. Yadav and **S. Prasad**, "Single walled carbon nanotube based ionic building blocks for nanoelectronic devices,NSTI-Nanotech 2008, ISBN 978-1-4200-8503-7 Vol1,

Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 1 (2008)

3. M. Bothara, **S. Prasad**, T. Barrett, and J. Carruthers, "Nanomonitors: Electrical Immunoassays towards Clinical Diagnostics", 558 – 561, ISBN: 978-1-4200-8504-4 Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008)

4. V. L. Venkatraman, R. K. Reddy, F. Zhang, V. Hsu, B. Ulrich, and **S. Prasad**, "A Comparative Analysis of Iridium Oxide Nanowires in Electrical Detection of Biochemical Reactions", 569 – 572, ISBN: 978-1-4200-8504-4, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008)

5. D.A. Meka, L. A. George, and **S. Prasad**, "Polymer nanocomposite based chemiresistive gas sensors", 595 – 598, ISBN: 978-1-4200-8504-4, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008)

6. V.L. Venkatraman, R.K. Reddy, F. Zhang, V. Hsu, B. Ulrich, and **S. Prasad**, "Iridium Oxide Nanowire Monitors for Protein Detection", 649-652, ISBN: 978-1-4200-8504-4, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008)

7. V. Kunduru, **S. Prasad**, P.K. Patra, and S. Sengupta 'Lab on a chip' Label Free Protein Sensor Systems Based on Polystyrene Bead and Nanofibrous Solid Supports, 335 – 338, ISBN: 978-1-4200-8505-1, Nanotechnology 2008: Microsystems, Photonics, Sensors, Fluidics, Modeling, and Simulation - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 3, (2008)

8. E. Casler, S. Chae, V. Kunduru, M. Bothara, E. Yang, S. Ghionea, P. Dhagat, and **S. Prasad**, Ferromagnetic Resonance Biochip for Diagnosing Pancreatic Cancer, 347 – 350, ISBN: 978-1-4200-8505-1, Nanotechnology 2008: Microsystems, Photonics, Sensors, Fluidics, Modeling, and Simulation - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 3, (2008)

9. S.K. Padigi, K. Aasante, R.K.K. Reddy, V.S.R., Kovvuri, A. Larosa and **S. Prasad**, "Microphotonic cylindrical waveguide based protein biosensor." Proceedings of SPIE, Integrated Optics: Devices, Materials and Technologies XI, Ed: Y. Sidrorin and C.A. Waechter Vol: 6475, 647503-1-10 (2007)

10. V. Kunduru, and **S. Prasad**, "Electrokinetic Alignment of Polymer Microspheres for

Biomedical Applications, Engineered Nanoscale Materials for the Diagnosis and treatment of disease,” MRS Proceedings Volume 1019E Editors: V.A. Hackley, A.K. Patri, J. Stein, B.M. Moudgil 1019-FF05-05 (2007)

11. **S. Prasad**, R. K Reddy, and V. Kunduru Electrical Immunoassays for Clinical Diagnostics, MRS Proceedings Volume 1019E Editors: V.A. Hackley, A.K. Patri, J. Stein, B.M. Moudgil 1019-FF08-04 (2007) (audio presentation)

12. V. Kunduru, S.P. Padigi, and **S. Prasad**, Platform based Detection Technologies from Micro scale to Nanoscale, *Mater. Res. Soc. Symp. Proc.* 915, 0915-R06-34, (2006)

13. R. K. Reddy, and **S. Prasad**, Nano Monitors for Identification of Vulnerable Cardio-Vascular Plaque, *Mater. Res. Soc. Symp. Proc.* 915, 0915-R06-27, (2006)

14. **S. Prasad**, Development of a Micro fluidic Nanoscale Protein Sensor Device for Improving Vascular Surgical Outcomes. *Mater. Res. Soc. Symp. Proc.* 888, 0888-V10-08.1, (2006)

14. **S. Prasad**, Ultra sensitive Bio-Chemical sensors Based on Optical Resonance, *Mater. Res. Soc. Symp. Proc.* 890, 0890-Y06-05.1, (2006)

15. **S. Prasad**, Development of a Micro fluidic Nanoscale Protein Sensor Device for Improving Vascular Surgical Outcomes. Symposium V, *Mat. Res. Soc. Symp. Proc. Fall Meeting*, Vol. 88, V 10.8 (2005)

16. **S. Prasad**, Ultra sensitive Bio-Chemical sensors Based on Optical Resonance Symposium Y, *Mat. Res. Soc. Symp. Proc. Fall Meeting*, Vol. 89, V 6.5 (2005)

17. **S. Prasad**, and M. Ozkan. Next generation sensing - Stainless sensing via single cell based sensors *Mat. Res. Soc. Symp. Proc.* W11.5 (2004)

18. **S. Prasad**, X. Zhang, M. Yang, Y. Ni, V. Parpura, C. S. Ozkan and M. Ozkan. Electric Field-Assisted Positioning of Neurons on Pt Microelectrode Arrays. *Mat. Res. Soc. Symp. Proc.* 773, N4.6.1-4.6.9 (2003).

19. M. Yang, **S. Prasad**, X. Zhang, A. Morgan, M. Ozkan, and C. S. Ozkan. Single Cell Based Microelectrode Array Biosensors. *Mat. Res. Soc. Symp. Proc.* 773, N11.6.1-N11.6.6 (2003).

20. **S. Prasad**, and M.Ozkan. Electric Field Assisted Patterning and Characterization of Live Neuronal Networks for the Study of Brain Functions. *Mat. Res. Soc. Symp. Proc. Vol EXS-1*, F5.26.1-F5.26.7 (2003).

### **Book Chapters**

1. D.A. Meka, S. Gupta, V. L. Venkatraman, R. K.K. Reddy, Y. Yadav, and S. Prasad “Nanomaterials based devices as bio-chemical sensors,” *Encyclopedia of Nanoscience and*

Nanotechnology (2008)

2. Y. Yadav, V. Kunduru and S. Prasad, "Carbon nanotubes: synthesis and characterization," Nanopackaging, Springer 1 edition, ISBN: 0387473254, (2008)

3. V. Kunduru, Y. Yadav, and S. Prasad, "Characteristics of carbon nanotubes for nanoelectronic device applications," Nanopackaging, Springer 1 edition, ISBN: 0387473254, (2008)

4. C. S. Ozkan, M. Ozkan M. Yang, X. Zhang, S. Prasad "Bridging Microelectronics and Biotechnology: Cell Based Microarray Biosensors". Encyclopedia of Sensors, American Scientific Publishers, United States, ISBN 158883056X (2006)

5. C.S. Ozkan, M. Ozkan Mihri, M. Yang, X. Zhang, S. Prasad, "Cell Based Sensors for Chemical Detection". BioMEMS and Biomedical Nanotechnology V4: Biomolecular Sensing, Processing and Analysis, Kluwer Publisher, United States, ISBN 978-0-387-25561-3 (2007)

6. M. Ozkan, C. Ozkan, S. Prasad, M. Yang and X. Zhang, "Microarray and Fluidic Chip for Extracellular Sensing", BioMEMS and Biomedical Nanotechnology V2 Micro/Nano Technologies for Genomics and Proteomics, Kluwer Publisher ISBN 978-0-387-25561-3 (2007)

### ***Conference Presentations***

#### ***Significant Presentations as Speaker***

1. **Shalini Prasad** "Artificial Brain on a Chip" Session N4, Cell arrays and Tissue Engineering I, Material Research Society Spring Meeting, San Francisco CA, April 22-25, 2003
2. **Shalini Prasad** "Holmes on a Chip: Miniature Cellular Electrical Activity Based Analysis Tools" - Portland State University, Department of Electrical Engineering, Graduate Colloquium, Portland, OR. February 11th, 2005.
3. **Shalini Prasad** "Sleuths on a Chip: Miniature Cell Based Analysis Tools" - Department of Biomedical Engineering Oregon Graduate Institute, Colloquium, Beaverton, OR. March 8th 2005
4. **Shalini Prasad** "Miniature Cell Based Sensors" -Oregon Nanomedicine Interdisciplinary Research Group (ONIRG) Working Group Meeting, Beaverton OR, March 21st 2005.
5. **Shalini Prasad** "Nano Structured Platforms for Cellular Analysis Devices"- Nanostructured Interfaces - Protein and Cell Adhesion, Symposium M, Materials Research Society Spring Meeting 2005, San Francisco, CA. March 31st 2005

6. **Shalini Prasad** “Miniaturized Diagnostic Tools: A New Paradigm in Biotechnology”- **Keynote Talk**, Heart Research Center, Oregon Health Sciences University, Portland, OR. October 1st 2005
7. **Shalini Prasad** “Applications of Miniaturization Technologies in Sensor Development” –Physics Department Colloquium, Portland State University, Portland OR. October 3rd 2005
8. **Shalini Prasad** “BioSens: Biosensing Platform”, Lab2Market Initiative Presentation, Portland Business Accelerator, Portland, OR. October 14th 2005.
9. **Shalini Prasad** “Applications of Miniaturization Technologies towards “System-on-a-Chip” Devices, System Science Engineering Colloquium, Portland, OR. October 27th 2005
10. **Shalini Prasad** “Applications of Miniaturization towards “Lab-on-a-Chip” based Devices”- Department of Biology Colloquium, Portland, OR. November 3rd, 2005
11. **Shalini Prasad** “Development of a Microfluidic Nanoscale Protein Sensor Device for Improving Vascular Surgical Outcomes Materials and Devices for Smart Systems” – Symposium V, Sensor Materials and Devices, Materials Research Society, Fall 2005, Meeting, Boston, MA, December 1st 2005
12. **Shalini Prasad** “Nano Monitors for Identification of Vulnerable Cardio-vascular Plaque”, Symposium CC, Electrobiological Interfaces on Soft Substrates, MRS Spring Meeting, San Francisco, CA. April 18th 2006
13. **Shalini Prasad** “Chip Detectives: Miniature Biosensors”, Oregon State University, EECS Colloquium, Corvallis, OR, April 28th 2006.
14. **Shalini Prasad** “Carbon Nanotube Based “Electronic Nose” For Detection Of Aliphatic Hydrocarbons”, Material Science and Nanoparticles II, AAAS, Pacific Division, 87th Annual Meeting, University of San Diego, San Diego, CA. June 21st 2006.
15. **Shalini Prasad** and Sudhprasanna Kumar Padigi “Polymer Micro-Cylindrical Waveguide Based Protein Biosensor”, Material Science and Nanoparticles II, AAAS, Pacific Division, 87th Annual Meeting, University of San Diego, San Diego, CA. June 21st 2006
16. **Shalini Prasad** and RaviKiran K. Reddy “Nano Monitors for Identification of Vulnerable Cardio-Vascular Plaque” Material Science and Nanoparticles II, AAAS, Pacific Division, 87th Annual Meeting, University of San Diego, San Diego, CA, June 21st 2006

17. **Shalini Prasad** "Miniaturized Monitors for Analyte Detection", Oregon Graduate Institute, Seminar, October 27th, 2006
18. **Shalini Prasad**, Sudhapasanna Kumar Padigi, Kofi Asaante, Ravikiran K. Reddy, Vijay Sekar Reddy Kovvuri and Andres Larosa "Micro-photonic cylindrical waveguide based protein biosensor." Integrated Optics: Devices, Materials, and Technologies XI, SPIE Symposium on Integrated Optoelectronic Devices 2007, January 22 2007, San Jose, CA.
19. **Shalini Prasad**, Ravi K. Reddy, Tom Barrett and John Carruthers "Nanomonitor: Electrical Immunoassays for Clinical Diagnostics Applications". Lab Automation Conference 2007, "Nanotechnology in Molecular Imaging and Therapeutics", January 30, 2007, Palm Springs, CA
20. **Shalini Prasad**, Ravikiran K Reddy, and Vindhya Kunduru; Electrical Immunoassays for Clinical Diagnostics Session FF8: Nanomaterial - Based Imaging and Diagnostics Material Research Society, Spring Meeting, April 13, 2007, San Francisco, CA
21. Sudhapasanna Kumar Padigi, Kofi Asante, Vijay Sekar Reddy Kovvuri, Ravikiran .K. Reddy, Andres La Rosa and **Shalini Prasad**, Micro-photonic cylindrical waveguide based protein biosensor Session: NanoFab: Bottom-Up Approach: Bio-Nano Device Fabrication, NSTI Nanotech2007- May 24, Santa Clara, CA
22. Vindhya Kunduru and **Shalini Prasad**, Electrophoretic Flow Cell System for Biological Sensing, AAAS Pacific Division and American Chemical Society, Sensors and Sensor Technologies, June 18, 2007, Boise ID
23. Ravikiran K. Reddy, **Shalini Prasad**, Nanomonitor: Electrical Immunoassay, AAAS Pacific Division and American Chemical Society, Sensors and Sensor Technologies, June 18, 2007, Boise ID
24. **Shalini Prasad**, Ravikiran Reddy, Thomas Barrett, John Carruthers, Nanomonitor: Protein Biosensors for Rapid Analyte Analysis 2007 Nanoelectronic Devices for Defense & Security (NANO-DDS) Conference. Session II Electrically based Nanosensors Sensitivity & Discrimination Enhancement Mechanisms & Principles, June 18, 2007, Washington. D.C.
25. Ravikiran. K Reddy, **Shalini Prasad**, Thomas Barrett and John Carruthers, Nanomonitor-Electrical Immunoassays for Early Disease diagnosis, Gordon Research Conference: CHEMICAL SENSORS & INTERFACIAL DESIGN The Impact Of Interfacial Design On Novel Sensor Systems August 1, 2007, Salve Regina University, Newport, RI (Poster Talk, August 1st 2007)

26. Ravikiran K. Reddy, **Shalini Prasad**, Tom Barrett, and John Carruthers and, Micro Nano Break through Conference Green Track: Nanomedicine and Cancer Therapeutics Nanoscale Cardiovascular Risk Profiler, September 12, 2007, Portland, OR
27. **Shalini Prasad**, "Nanobiotechnology: Towards a Healthy Society", Oregon Bioscience Association-Panel Member September 21st, 2007, Oregon Zoo, Portland, OR
28. **Shalini Prasad**, "Nanomonitors: Clinically Relevant Immunoassays", The 11th Annual European Conference on Micro and Nanoscale Technologies for Biosciences, November 14th -16th, 2007, Montreux, Switzerland.(invitation)
29. **Shalini Prasad**, "Nanomonitors: Electrical Immunoassays for Clinical Diagnostics Applications", The 12th Annual European Conference on Micro and Nanoscale Technologies for Biosciences, November 17th -18th, 2008, Montreux, Switzerland.(invitation)
30. **Shalini Prasad**, Nanobiotechnology: Health and Pharma, 2nd Bangalore Nano, 11th-13th December 2008, Bangalore, India.
31. **Shalini Prasad**, Nanomonitor Technology: Clinically Relevant Electrical Immunoassays International Conference on Recent Trends in Nanostructured Materials and Their Applications (ICRNM-2008), December 19th-21st, Osmania University, Hyderabad, India
32. **Shalini Prasad**, SPIE Photonics West, Lab on a Chip I Micromonitors: waveguide based immunoassays for clinical [7220-18], 24-29 January 2009, San Jose CA (Invitation)
33. **Shalini Prasad**, Manish Bothara, Thomas Barrett, and John Carruthers, SPIE Smart Structures/NDE, Nano-, Bio-, and Info-Tech Sensors and Systems ( 7291-11)Nanomonitors: Nanoporous membrane based "lab-on-a-chip" devices toward clinical diagnostics March 9th-13th, 2009, San Diego, CA

### ***Significant Poster Presentations***

34. Mo, Yang, Xuan Zhang, Cengiz Ozkan, **Shalini Prasad** and Mihri Ozkan, New Microelectrode arrays for 2D accurate positioning of neurons and 3D positioning of Glia, Session N11: Microfluidics II, San Francisco CA, April 22-25, 2003,
35. Satyajith Ravindran, Mihri Ozkan, **Shalini Prasad**, Mo Yang, Xuan Zhang, Cengiz Ozkan Patterned carbon nanotube substrates for directed neural growth, April 22-25, San Francisco CA 2003
36. **Shalini Prasad** and Mihri Ozkan Next generation sensing-stainless sensing via single cell based sensors, Symposium W11 Biosensors and Tissue Engineering, San Francisco

CA, April 13-16, 2004

37. **Shalini Prasad** and Jorge Quijano, "Nanostructured Cell Based Analysis Devices" Nanotechnology, Nanobiology and Nanomedicine, Portland, OR. March 18th 2005
38. **Shalini Prasad**, "Nano-Order Cell-Based Monitoring Devices." Micro Nano Breakthrough Conference, Portland, OR. July 27th , 2005
39. Sudhaprasanna Kumar Padigi, and **Shalini Prasad**, "Measurement of High Q-Based Biochemical Sensors." Micro Nano Breakthrough Conference, Portland, OR. July 27th , 2005
40. **Shalini Prasad**, "Development of Dielectric Filtering-Based Noninvasive Detect-to-Warn Sensors for Identification of Combusted/Uncombusted Fossil Fuel." Micro Nano Breakthrough Conference, Portland, OR. July 27th , 2005
41. Jorge Quijano, Bharat Kumandan, and **Shalini Prasad**, "Micro Engineered Cellular Devices as In-Vitro Diagnostic Platforms", 16th Annual Symposium of the Pacific Northwest Chapter of the AVS Science and Technology Society, Troutdale, OR. September 15th 2005
42. **Shalini Prasad**, and SudhaPrasanna Kumar Padigi, "Tunable Nano Plasmons Based Micro cavity Bio-Chemical Sensors," Lab Automation 2006, Palm Springs, CA. Jan 23rd 2006
43. SudhaPrasanna Kumar Padigi, and **Shalini Prasad**, "Carbon Nanotube Based "Nose" For Detecting Of Aliphatic Hydrocarbons. Session Z3: Nano-materials and Composites. Materials Research Society, Spring Meeting 2006, San Francisco, CA. April 18th 2006
44. Ravikiran K. Reddy, and **Shalini Prasad**, "Nano Ordered High Throughput Diagnostic Platforms", Session R6, Inorganic Materials for Sensing, Materials Research Society, Spring Meeting 2006, San Francisco, CA. April 19th 2006.
45. Vindhya Kunduru, SudhaPrasanna Kumar Padigi, and **Shalini Prasad**, "Platform based Detection Technologies from Micro scale to Nanoscale", Session R6, Inorganic Materials for Sensing, Materials Research Society, Spring Meeting 2006, San Francisco, CA. April 19th 2006.

46. Sunil Kumar Penna, Sandeep Devabhatuni, SudhaPrasanna Kumar Padigi, and **Shalini Prasad**, "Multi-Layered Organic Luminescent Diode (OLED) Based Biosensors", Second Annual Columbia-Willamette Sigma Xi Student Research Symposium, Portland, OR. April 21st 2006
47. SudhaPrasanna Kumar. Padigi, Kofi Kasaante, Vijay Sekar Reddy Kovvuri, Ravikiran K. Reddy, Andres. LaRosa, and **Shalini Prasad**, Cylindrical Optical Waveguide based Detection and Characterization of Protein- Anti Protein Binding Events, Second Annual Columbia-Willamette Sigma Xi Student Research Symposium, Portland, OR. April 21st 2006.
48. John L. Ledesma, **Shalini Prasad** and Lemmy Meekisho, "Development of a Microfluidic Based Pump System for Stress Response Monitoring and Analysis," McNair Conference, Portland, OR. June 1st 2006
49. Ravikiran. K. Reddy, **Shalini Prasad**, Thomas W.. Barrett, Cory Bystrom, and John Carruthers, "Nano Monitors for Identification of Vulnerable Cardio- Vascular Plaque", Material Science and Nanoparticles II, AAAS, Pacific Division, 87th Annual Meeting, University of San Diego, San Diego, CA. June 21st 2006
50. SudhaPrasannaKumar Padigi and **Shalini Prasad** "Carbon Nanotube-based "Electronic Nose" for Detection of Aliphatic Hydrocarbons", Micro Nano Breakthrough Conference, Vancouver, WA. July 25th 2006
51. Vindhya Kunduru, SudhaPrasanna Kumar Padigi and **Shalini Prasad**, Electrical Assembly of Microbridge Based Detectors For Protein Sensing.; Session: A3.18. Materials Research Society Fall Meeting, November 27, 2006, Boston, MA
52. **Shalini Prasad**, SudhaPrasanna Kumar. Padigi and Ravikiran K. Reddy, Multiwalled Carbon Nanotube Based Hydrocarbon Differentiator, Session E6.17, Nanomaterials /Nanotransduction for Biological and Chemical Detection, Materials Research Society, Fall Meeting, November 28, 2006, Boston, MA
53. Sandeep. Devabhaktuni, Sunil Kumar Penna, SudhaPrasanna Kumar Padigi and **Shalini Prasad**; Multi-Layered Organic Light Emitting Diode Based Bio-Chemical. Session E9.26, Nanomaterials/Nanotransduction for Biological and Chemical Detection, Materials Research Society, Fall Meeting, November 28, 2006, Boston, MA
54. Sandeep Devabhaktuni, Sunil Kumar Penna, Sudhakumar Prasanna Padigi, **Shalini Prasad**, Multi-Layered Organic Light Emitting Diode (OLED) Based Bio-Sensors, Lab Automation 2007, January 29, 2007, Palm Springs, CA

55. Vijay Sekhar Reddy Kovvuri, Sudhaprasanna Kumar Padigi, Kofi Kasaante, Ravi Kiran Kondama Reddy, **Shalini Prasad**, Andres LaRosa, Cylindrical Optical Waveguide Based Detection and Characterization of Protein-Anti Protein Binding Events, Lab Automation 2007, January 29, 2007, Palm Springs, CA
56. Vindhya Kunduru, Sudhaprasanna Kumar Padigi, **Shalini Prasad**, Electrokinetic Formation of "Microbridges" for Protein Biomarkers as Sensors, Lab Automation 2007, January 29, 2007, Palm Springs, CA
57. Ravikiran Reddy, **Shalini Prasad**, Sujata Iyer, A Nanoscale Immunoassay Device for Electrical Detection of Protein Biomarkers, Lab Automation 2007, January 29, 2007, Palm Springs, CA
58. Yamini Yadav, Sudhaprasanna Kumar Padigi, **Shalini Prasad**, Xiaoyu Song, Multiwalled Carbon Nanotube Based High Density P-N Junction Arrays, Lab Automation 2007, January 29, 2007, Palm Springs, CA
59. Ravikiran Reddy, **Shalini Prasad**, Thomas Barrett, John Carruthers, Nanoscale Cardiovascular Risk Profiler, Lab Automation 2007, January 29, 2007, Palm Springs, CA
60. Divakara Atchuta B.S. Meka, **Shalini Prasad**, and Linda George; Polymer Nanocomposite Based Chemiresistive Gas Sensors. Session V3.22: Poster Session: Functional Materials for Chemical and Biochemical Sensors I, Materials Research Society, Spring Meeting, April 10, 2007, San Francisco, CA
61. Vijay Sekhar Reddy Kovvuri, Sudhaprasanna Kumar Padigi, Kofi Kasaante, Andres LaRosa, and **Shalini Prasad**; Microphotonic Cylindrical Waveguide Based Protein Biosensor Session V3.27: Poster Session: Functional Materials for Chemical and Biochemical Sensors I, Materials Research Society, Spring Meeting, April 10, 2007, San Francisco, CA
62. Vinu L. Venkatraman, Ravikiran K Reddy, Fengyan Zhang, Victor Hsu, Bruce Ulrich, **Shalini Prasad**, Iridium Oxide Nanowire Monitors for Protein Detection, AAAS Pacific Division Sensors and Sensor Technologies and ACS, June 18, 2007, Boise ID
63. Divakara A.B.S. Meka, Linda A. George, **Shalini Prasad**, Polymer Nanocomposite Based Chemiresistive NO<sub>x</sub> Sensor AAAS Pacific Division and ACS Sensors and Sensor Technologies, June 18, 2007, Boise ID.

64. **Shalini Prasad**, Divakara A.B.S. Meka, Linda A. George, Polymer Nanocomposite Based Chemiresistive Gas Sensors, Nanoelectronic Devices for Defense & Security, June 20, 2007, Washington D.C.
65. Ravikiran. K Reddy, **Shalini Prasad**, Thomas Barrett and John Carruthers, Nanomonitors-Electrical Immunoassays for Early Disease diagnosis, Gordon Research Conference: CHEMICAL SENSORS & INTERFACIAL DESIGN The Impact Of Interfacial Design On Novel Sensor Systems August 1, 2007, Salve Regina University Newport, RI.
66. Yamini Yadav, **Shalini Prasad** and Xiaoyu Song, “Cross-bar Nano-array Structure using Fluidic Alignment Technique,” Micro-nano breakthrough Conference, September 11, 2007, Portland, OR
67. Divakara Atchuta B.S. Meka, **Shalini Prasad**, and Linda George; Polymer nanocomposite Based Chemiresistive Gas Sensors. Micro-nano breakthrough Conference September 11, 2007, Portland, OR
68. Vinu L. Venkatraman, Ravikiran K Reddy, Fengyan Zhang, Victor Hsu, Bruce Ulrich, **Shalini Prasad**, Iridium Oxide Nanowire Monitors for Protein Detection Micro-nano breakthrough Conference September 11, 2007, Portland, OR
69. Vindhya Kunduru, **Shalini Prasad**, Electrokinetic “Microbridges” for Protein Biomarkers Sensors, Micro-nano breakthrough Conference September 11, 2007 Portland, OR
70. Ravikiran Reddy, **Shalini Prasad**, Tom Barrett, John Carruthers, Nanoscale Cardiovascular Risk Profiler, Micro-nano breakthrough Conference September 11, 2007 Portland, OR
71. Vinu Venkatraman, Ravikiran K. Reddy, Fengyang Zhang, David Evans, Victor Hsu, Bruce Ulrich, and **Shalini Prasad**, “A Comparative Analysis of Iridium Oxide Nanowires in Electrical Detection of Biochemical Reactions,” Materials Research Society 1095-EE08-22(2008), March 25 - 27, 2008 San Francisco CA
72. Yamini Yadav and **Shalini Prasad**, “Single walled carbon nanotube based ionic building blocks for nanoelectronic devices, NSTI-Nanotech 2008, ISBN 978-1-4200-8503-7 Vol1, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 1 (2008), NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA
73. Manish Bothara, **Shalini Prasad**, Thomas Barrett, and John Carruthers, “Nanomonitors: Electrical Immunoassays towards Clinical Diagnostics”, 558 – 561, ISBN:

978-1-4200-8504-4 Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008) NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA

74. Vinu L. Venkatraman, Ravikiran . K. Reddy, Fengyang Zhang, Victor Hsu, Bruce Ulrich, and **Shalini Prasad**, "A Comparative Analysis of Iridium Oxide Nanowires in Electrical Detection of Biochemical Reactions", 569 – 572, ISBN: 978-1-4200-8504-4, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008) NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA

75. Divakara A. Meka, Linda A. George, and **Shalini Prasad**, "Polymer nanocomposite based chemiresistive gas sensors", 595 – 598, ISBN: 978-1-4200-8504-4, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008) NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA

76. Vinu L. Venkatraman, Ravikiran Reddy, Fengyang Zhang, Victor Hsu, Bruce Ulrich, and **Shalini Prasad**, "Iridium Oxide Nanowire Monitors for Protein Detection", 649-652, ISBN: 978-1-4200-8504-4, Nanotechnology 2008: Life Sciences, Medicine & Bio Materials - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 2 (2008) NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA

77. Vindhya Kunduru, **Shalini Prasad**, Prabir K. Patra, and S. Sengupta 'Lab on a chip' Label Free Protein Sensor Systems Based on Polystyrene Bead and Nanofibrous Solid Supports, 335 – 338, ISBN: 978-1-4200-8505-1, Nanotechnology 2008: Microsystems, Photonics, Sensors, Fluidics, Modeling, and Simulation - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 3, (2008) NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA

78. Eric Casler, Suguen Chae, Vindhya Kunduru, Manish Bothara, Edward Yang, Simon Ghionea, Pallavi Dhagat, and **Shalini Prasad**, Ferromagnetic Resonance Biochip for Diagnosing Pancreatic Cancer, 347 – 350, SBN: 978-1-4200-8505-1, Nanotechnology 2008: Microsystems, Photonics, Sensors, Fluidics, Modeling, and Simulation - Technical Proceedings of the 2008 NSTI Nanotechnology Conference and Trade Show, Volume 3, (2008) NSTI June 1<sup>st</sup>-5<sup>th</sup>, 2008, Boston, MA

79. Siddartha. Bhowmik, Oksana Ostrovherkova, Sridhar Balasubramanian, **Shalini Prasad**, and Sundar Atre, Highly Ordered Nanopatterned Metal/Polymer, Electro-optic Structures Micro Nano Breakthrough Conference, Vancouver, WA, September 8-10, 2008

***Synergistic Activities***

1. 2009- Present- Societal and Ethical Issues in Nanotechnology, ASU-NSF-NNIN Node Coordinator
2. 2008-Present Scientific Advisory Board Member- Nanotech –Montreux, Switzerland
3. 2008- Co-organizer, AAAS Pacific Division, 89th Annual Meeting, Materials Science and Nanotechnology Symposium, Waimea, HI
4. 2008- Short Course Instructor: “Micro and Nanoscale Technologies for Life Sciences,” The 11th Annual European Conference on Micro and Nanoscale Technologies for Biosciences, November 15<sup>th</sup> -17<sup>th</sup>, 2008, Montreux, Switzerland.
5. 2007- Short Course Instructor: “Micro and Nanoscale Technologies for Life Sciences,” The 11th Annual European Conference on Micro and Nanoscale Technologies for Biosciences, November 13<sup>th</sup>, 2007, Montreux, Switzerland.
6. 2007- NSF Summer Institute Fellowship Recipient for Nano Mechanics and Materials, Foundational Interrogation Modalities and Novel Applications Forged at the Intersection of Micro/Nanotechnology and Medicine, Northwestern University, July 16<sup>th</sup>-19<sup>th</sup>, UCLA. Received the Summer Institute fellowship for the workshop, Co-sponsors: ASME
7. 2007- NSF CAREER Proposal Writing Invited Workshop, Hawaii Tokai International College (Honolulu), sponsored by NSF program in the Civil, Mechanical and Manufacturing Innovation (CMMI) Division and Kansas State University.
8. 2007- Co-organizer, AAAS Pacific Division, 88th Annual Meeting, Sensors and Sensor Technology Symposium, Boise, ID
9. 2006-Present, Journal of Lab Automation Editorial Member
10. 5 pending, US patents
11. 2005-2008 Mentored 3 NSF REU students
12. 2006-2008, Intel Undergraduate Grant-Mentored and funded 5 undergraduate students

***Selected Awards and Honors***

1. Research selected for Poster in Oregon Biotechnology Showcase (2008)
2. Marquis Who’s Who in American Women (2008-2009)
3. Marquis Who’s Who in the World (2008-2009)
4. Marquis Who’s Who in Science and Engineering (2006-2007)

5. Third place, poster award, Gordon Research Conference- CHEMICAL SENSORS & INTERFACIAL DESIGN, The Impact Of Interfacial Design On Novel Sensor Systems, Newport, RI (2007)
6. Third place, poster award AAAS Pacific Division 88th Annual Meeting, Sensors and Sensor Technologies, Boise, ID (2007)
7. First place, poster award AAAS Pacific Division 88th Annual Meeting, Sensors and Sensor Technologies, Boise, ID (2007)
8. Lab Automation Innovation Award Finalist (2007)
9. Developed a workshop: Johns Hopkins Center for Talented Youth: Hosting 200 middle school students from across the United States for a one day workshop on Nanotechnology.(2007)
10. Marquis Who's who in the World (2007-2008)
11. Invited Panel Member "Nanobiotechnology: Towards a Healthy Society Oregon Bioscience Association, September 21st, 2007, Portland, OR (2007)
12. Pre- lecture presentation at Portland State University with Dr. Meyya Meyyapan, NASA Ames. Co-hosted the event for approximately 80-100 students, parents and school teachers, (2006)
13. Lab 2 Market Mentor Team: Crystal Clear Technologies Inc, Portland, OR (2006-2007)
14. Oregon Lab2 Market Program Technology Development (2005)
15. Graduate Research Award University of California Riverside, CA (2004)
16. Whitaker Award for Poster Presentation in BioMEMS and Nanotechnology World Conference, Washington D.C. (2003)
17. Lab Automation Poster Award for BioMEMS, Microfluidics, and Nanotechnology (2002)
18. University of California Riverside Dean's Fellowship (2001)