

1. Dr. (Mrs.) V.A. Sonetha

Name of Teaching Staff : Dr. (Mrs.) Vaibhavi Ashik Sonetha

Designation: Assistant Professor

Department: Biomedical Engineering

Date of Joining the Institution: 1st August, 2003



Qualifications with Class / Grade:

1. Ph.D. (Technology), 2017, IIT Bombay
2. M.Tech. (Biomedical Engineering), 2007, IIT Bombay, CPI: 9.81
3. B.E. (Biomedical Engineering), 2002, D. J. Sanghvi COE, First Class with Distinction.

Total Experience in Years :

Teaching: **14 Years**

Assistant Professor in D. J. Sanghvi College of Engineering from October 2008 till date.

Lecturer in D. J. Sanghvi College of Engineering from July 2003 till September 2008.

Papers Published:

International Journal:

1. Microelectromechanical Systems in Medicine. Journal of Medical and Biological Engineering, 37(4):580-601, 2017.
DOI: 10.1007/s40846-017-0265-x.
2. Mathematical Modeling and Simulation of an Occlusion Device in a Blood Vessel. Cardiovascular Engineering and Technology, 7(4):420-431, 2016.
DOI: 10.1007/s13239-016-0278-6.
3. Simulation of pulsatile blood flow through various cardiac defects and quantitative measurements of blood volume. Procedia Material Science, 10:706 - 713, 2015.
DOI: 10.1016/j.mspro.2015.06.078
4. Flow simulation of cardiac defects to evaluate effectiveness of occlusion device. Journal of Medical Devices, 8:020940 1-3, 2014.
DOI: 10.1115/1.4027066
5. Evolution of a Novel Intraductal Patent Ductus Arteriosus Occlusion Device. Journal of Medical Devices, 5:035001 1-6, 2011.
DOI:10.1115/1.4003674

Papers Presented in Conferences:

1. Web based radiology viewer. IJCA Proceedings on International conference on Computer Technology, 1:6–9, 2015.
2. Fatigue analysis of knee joint. Procedia Computer Science, 45:250 – 255, 2015.
DOI: 10.1016/j.procs.2015.03.131

3. Review on Simulation and Evaluation of Intravascular Prosthetic Device Using Finite Element Method and Computational Fluid Dynamics and Application to Simulate Aneurysm Formation. Proceedings of 15th International conference on Biomedical Engineering, Springer International Publishing Switzerland, 43:797-800, 2014.
DOI: 10.1007/978-3-319-02913-9_205
4. Non-invasive technique for measurement of electrical activity of stomach. Conference proceedings at International conference in Engineering Technology and Management, Rajiv Gandhi college of Engineering and Technology, 221-225, 2012.
ISBN: 978-93-81583-52-4
5. Patent Ductus Arteriosus closure device. International Journal on Biomedical Engineering and Nanotechnology 2(3): 28-33, 2009. ISSN - 0974 – 2743.

Books Published / IPRs / Patents :

1. Electrical and Electronic Measurements. Tech Max Publication, July 2013.
Revised Edition: 2014, 2015, 2016, 2017.
2. Electronic Instruments and Measurements. Tech Max Publication, July 2013.
Revised Edition: 2014, 2015, 2016, 2017.
3. Electronic Instruments and Measurements. Tech Max Publication, July 2013.
Revised Edition: 2014, 2015, 2016, 2017.
4. Electronics Instrumentation Systems. Tech Max Publication, January 2011.
Revised Edition: 2012.
5. Electronic Instrumentation. Tech Max Publication, August 2009.
Revised Edition: 2010, 2011, 2012.
6. Electronic and Electrical Measuring Instruments and Machine. Tech Max Publication, January 2009. Revised Edition: 2010, 2011.

STTP/Workshops/Conferences:

1. INUP hands-on training workshop on Nanofabrication technologies, held at IIT Bombay from 24th October to 28th October, 2016.
2. Training course at Boston Scientific Engineering and Technology Pvt. Ltd., Gurgaon from 5th September to 8th September, 2016.
3. Saksham IT championship programme at DJSCE on 31st August, 2016.
4. 2nd international conference on nanomaterials and Nanotechnologies CNT 2014 held at Vardhaman college of engineering, Hyderabad on 18th October, 2015.
5. Design of medical device conference held at University of Minnesota, Minneapolis, USA from 7th April to 10th April, 2014.
6. Attended 15th International conference on Biomedical Engineering at National University of Singapore, 4th – 7th December 2013.
7. Attended workshop on “Credit and Grading System” at Sardar Patel Institute of Technology on 26th July, 2012.

8. Attended “18th International Medical Fair and Conference” organized by Messe Düsseldorf GmbH at Mumbai, March 2012.
9. Attended ISTE approved STTP on “Upcoming Trends in Biomedical Engineering” organized by Watumull Institute of Electronics Engineering and Computer Technology from 4th – 15th July, 2011.
10. Attended International conference on “Biomedical Engineering and Nanotechnology” organized by D. Y. Patil College of Engineering and Technology, Kolhapur.
11. INDO – US Workshop on “Cardiovascular Prosthetic Devices: In Vitro Studies to Clinical Implantation” at Sree Chitra Tirunal Institute for Medical Science and Technology, Thiruvananthapuram from 1st – 3rd February, 2007.
12. 34th ISTE Annual convention and national seminar at Netaji Subhash Institute of Technology, Hyderabad from 18th – 20th December, 2004.
13. Refresher course on “Digital Signal Processing” at Jawaharlal Nehru technological University, Hyderabad from 17th November – 7th December 2004.
14. Staff development Programme on “Enhancing Skills of Engineering Faculty” at Nirma University of Science and Technology, Ahmedabad from 28th June – 10th July, 2004.
15. ISTE approved Summer school on “Biomedical Instrumentation and Health care” at D. J. Sanghvi C.O.E. from 16th – 28th June, 2003.

Projects at Bachelors level: 15

Professional Memberships: ISTE Member

Awards:

1. 3rd prize winner of “ASM India 2017-Doctorate award” for distinguished PhD research in the area of Material Science and Engineering on 15th October 2017 at College of engineering, Pune.
2. Honored with “Woman in Engineering” award by ASM international India chapter for research work in Biomedical engineering (2016).
3. Awarded BEST PAPER – “Patent Ductus Arteriosus (PDA) closure device” at International conference on “Biomedical Engineering and Nanotechnology” organized by D. Y. Patil College of Engineering and Technology, Kolhapur (2008).
4. Honored with Nitish V. Thakor M.TECH AWARD for excellence in ongoing work in biomedical engineering by I.I.T. Bombay (2007).

Grants Fetched:

1. “MEMS based Drug Delivery System using Polymer Microneedles”
Mumbai University, July 2016 – May 2017
2. “Non-invasive technique for measurement of Electrical Activity of Stomach”
Sahajanand Laser Technology, July 2011 – May 2012