

## Profile for DC Member

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10.	<b>Publication details (Last 5 years: 2016-2020)</b>	: 18

### RESEARCH PUBLICATIONS (last 5 years)

#### Journals

1. R. Shanthapriya and **V. Vaithianathan**, "Block-healthnet: security based healthcare system using block-chain technology", pp. Security Journal, <https://doi.org/10.1057/s41284-020-00265-z>
2. Pavithra Guru, R., **Vaithianathan, V.** An efficient VLSI circuit partitioning algorithm based on satin bowerbird optimization (SBO). J Comput Electron 19, 1232–1248 (2020). <https://doi.org/10.1007/s10825-020-01491-9>
3. Shanthapriya.R, **Vaithianathan.V** "Secured healthcare monitoring system in wireless body area network using polynomial based technique" in Polish Journal of Medical Physics and Engineering, Volume 25, issue 3, pp 171-177, September 2019.
4. K.J.Jegadish Kumar, S. Joseph Gladwin, V. Karthick and **V. Vaithianathan**, "Realization of AES with Cellular Automata based S-Box for High-Speed Image Encryption", Asian Journal of Information Technology (ISSN: 1682-3915), 15(7), 1243-1248, March 2016

#### International Conferences

1. J. Kavivarman, B. Partibane and **V. Vaithianathan**, "Design of an Improved Gilbert Mixer for 5G Applications Using 45nm CMOS Technology", *5th International Conference on Communication and Electronics Systems (ICCES 2020)*, pp. 33-39, July 2020
2. Vishnu.KS, and **Vaithianathan.V.**, "Design of CMOS Low Noise Amplifier for 5G Applications Using 45nm Technology", 4th International Conference on Trends in Electronics and Informatics (ICOEI)(48184), pp. 99-104, June 2020
3. P. Guru R. and **V. Vaithianathan**, "Ant Colony Optimization Based Partition Model for VLSI Physical Design," 2020 International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, India, 2020, pp. 1-5, doi: 10.1109/ICCCI48352.2020.9104175.
4. K. Sudarshan and **V. Vaithianathan**, "Low Noise, High Gain and Low Power Bulk Injection Mixer for MB-OFDM based UWB Receiver", International Conference on Communication and Signal Processing (ICCSP), 4-6 April 2019.

5. Praveen S, Karthie S and **Vaithianathan V**, "Design and Simulation of Impulse Radio UWB transmitter using differential ring VCO" to the IEEE International Conference on Vision Towards Emerging Trends in Communication and Networking (ViTECoN'19) at Vellore Institute of Technology, Vellore on 30-31 March 2019.
6. Shanthapriya.R and **Vaithianathan.V**, "ECG-Based Secure Healthcare Monitoring System in Body Area Networks", 4th International Conference on Biosignals, Images and Instrumentation (ICBSII), 22-24 March 2018, Chennai.
7. Sadagopan PSSKP, Dr. V. **Vaithianathan** and Dr.Srinivasan R, "Performance Enhancement of Reconfigurable FET using Gate Workfunction, Inter-Gate Length and Inter-Gate Dielectric Permittivity", 4<sup>th</sup> International Conference on Signal Processing, Communications and Networking (ICSCN 2017), organized by Department of Electronics Engineering, Madras Institute of Technology Campus, Anna University, Chromepet, Chennai-600044 during March 16-18,2017. **Received Best Paper Award**
8. V.M. Sobana, Dr. R. Srinivasan, **Dr. V. Vaithianathan** and Dr. K.K. Nagarajan, "Performance Optimization of RingFET using LDD ", Symposium C – Nanoelectronic Materials and Devices of International Conference on NextGen Electronic Technologies: Silicon to Software (ICNETS2) VIT University, Chennai, during March 23-25, 2017.
9. **Dr. V. Vaithianathan**, V.H. Eshwar, S. Kamalakannan and James De Raja, "All-Digital Phase Locked Loop (ADPLL) with an Up-Down Counter Using Simulink", The international Conference on Wireless Communications, Signal Processing and Networking (WiSPNET 17), Department of Electronics and Communication Engineering, SSN College of Engineering, Chennai, India, during March 23-25, 2017.
10. Rajeshwari S and **Vaithianathan V**, "Design of Active Inductor Based Tunable Voltage Controlled Oscillator", 6<sup>th</sup> IEEE International Conference on Communication and Signal Processing (ICSSP 17), Department of Electronics and Communication Engineering, Adhiparasakthi Engineering College, Melmaruvathur.

#### **National Conferences**

1. M. Athia Farheen and **Dr. V. Vaithianathan**, "A Low Power UWB LNA with Body-Bias Technique For 3.1-4.85 GHz UWB receivers", National Conference on Research Challenges in VLSI Design and Embedded Systems for Wireless Communication (RCVEWC 2016), pp: 21-25, June 2016.
2. E. Elakkiya and **Dr. V. Vaithianathan**, "A 3-5 GHz Wide-Band CMOS LC-VCO with 4-Bit Capacitor Array", National Conference on Research Challenges in VLSI Design and Embedded Systems for Wireless Communication (RCVEWC 2016), pp: 85-90, June 2016.
3. M. Athia Farheen and **Dr. V. Vaithianathan**, " Analysis Of Current Reuse Techniques For Lower Band UWB LNA", National Conference on Research Challenges in VLSI Design and Embedded Systems for Wireless Communication (RCVEWC 2016), pp: 172-177, June 2016.
4. P. Arulvizhi and **Dr. V. Vaithianathan**, "Design of Down Conversion Mixer for Lower Band UWB Systems", National Conference on Research Challenges in VLSI Design and Embedded Systems for Wireless Communication (RCVEWC 2016), pp: 178-181, June 2016.