Brief Profile

Name:	Dr. Ram Kumar
Date of Birth:	15/11/1989
Educational Qualification:	
Ph. D.	NIT Silchar (Microelectronics and VLSI)
M. Tech	NIT Silchar (Microelectronics and VLSI)
B. Tech	RTU, Rajasthan (ECE)
Work Experience:	
• *Teaching*	3.5 Years
• *Research/Industry*	-
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Area/Subjects of Interest	RF Circuit Design, Circuit Optimization, VLSI
Teaching:	
Subjects Taught at UG level:-	Digital Electronics, Integrated Circuit, Analog& Digital Electronics
Subjects Taught at PG level	IOT
Research Guidance	
No. of Ph.D./M.Tech Guided:	-
Research Publications	
• Journals	12
• Conferences	12
• Book Chapters	4
Patent/IPR (Books Published etc.)	3 (Books)
No. of National/International Conferences attended/ Paper Presented	4
STC/FDP/Summer/Winter Schools/Workshops/Seminars attended	10
Memberships of the Professional Societies	IEEE EDS, IEEE AWP
Awards/Honors	CSIR NET JRF (AIR-110), 3 Times UGC NET JRF
Any other relevant Information	6 Times GATE Qualified

LIST OF PUBLICATIONS

Journal Papers

1. **Ram Kumar,** Ch Anandini and F.A Talukdar "Design of 5.5GHz Linear Low Noise Amplifier using Post Distortion Technique with Body Biasing" *Microsystem Technology* 22(11), 2681-2690 ***Springer*** 2015.
2. **Ram Kumar**, Abhishek Rajan, F.A Talukdar, Nilanjan Dey , V.Shanti and Valentina Emilia Balas "Parameter Optimization of Low Noise Amplifier using Firefly Algorithm" *Neural Computing and Application DOI 10.1007/s00521-016-2267-y* ***Springer.*** .
3. **Ram Kumar**, F.A.Talukdar, Nilanjan Dey and Valentina Emilia Balas "Quality Factor Optimization of Spiral Inductor using Firefly Algorithm and its Application in Amplifier" *International Journal of Advanced Intelligence Paradigms* ***Inderscience*** In Press.
4. **Ram Kumar,** Ch Anandini and F.A Talukdar "Optimization of 5.5 GHz Inductive Source Degeneration LNA using Multi-Objective PSO" **accepted** in *Journal of science research and development* 2 (12): 19-23, *2015 (**Thomson Reuter**).*
5. Ch Anandini, **Ram Kumar** and F.A Talukdar "Noise Optimization of 6 GHz Inductive Source Degeneration LNA using PSO" **accepted** in *Journal of science research and development 2015 (**Thomson Reuter**).*
6. Ch. Anandini, **Ram Kumar** and F.A Talukdar "A Review on Low Noise Amplifier for wireless communication" **accepted** in *International Journal of Computer Application 2015*.
7. Abahan Sarkar, Chakraborty S, **Ram Kumar**, B K Roy "Automatic Barcode Identification on FMCG Products using Image Processing" Discovery, 2015, 43(198), 105-111.
8. Abahan Sarkar, **Ram Kumar**, A Mohammad, B K Roy "Automatic Counting and Sorting of Balls. An Image Processing Approach" ISSN: 2231-4946 Volume -V, Special Issue, *IJCAES* January 2015.
9. **Ram Kumar,** Jitendra Mishra "A Low Noise Amplifier with improved Linearity and High Gain" *International Journal of Electronics and Computer Engineering* ISSN 2277-1956 Vol 2 no 4 October 2013 pp 1188-1193.
10. Ch Anandini, **Ram Kumar** and F.A Talukdar "A Comparative Study of Linearization Techniques of CMOS LNA" in International Journal of Recent Development in Engineering and Technology ISSN 2347-6435 Volume 3, Issue 2, August 2014 pp 95-100.
11. Ch Anandini, **Ram Kumar** and F.A Talukdar "A High Gain and Improved Linearity 5.7GHz CMOS LNA with Inductive Source Degeneration Topology" in International Journal of Emerging Technology and Advanced Engineering ISSN 2250-2459, Volume 4, Issue 8, August 2014 pp 257-261.
12. Ch Anandini, **Ram Kumar** and F.A Talukdar "A Low Noise Figure and High Gain 6 GHz CMOS LNA with Inductive Source Degeneration Topology" in International Journal of Engineering Research and Management ISSN 2349- 2058, Volume-01, Issue-05, August 2014 pp 186-189.

Conference Papers:

1. **Ram Kumar,** F.A Talukdar and Anandini Devi "Improvement in Linearity of Low Noise Amplifier using Post Distortion technique with Body Biasing" *IEEE 1st International conference on Microelectronics, Circuit & Systems Micro-2014* Vol 1 pp 6-9 (***IEEE***).
2. **Ram Kumar**, F.A Talukdar, and Ch Anandini "Modeling and Optimization of CMOS Spiral Inductor" accepted in *IEEE 2nd International conference on Microelectronics, Circuit & Systems Micro-2015* (***IEEE***).
3. **Ram Kumar,** Pragati Singh, Ch Anandini and F.A Talukdar "Linearity analysis and optimization of 5.5 GHz Inductive Source Degeneration Low Noise Amplifier" accepted in *1st International Conference on Nano-electronics, Circuits & Communication Systems* (***Springer Proceedings***) 2015.
4. **Ram Kumar,** Pragati Singh, Abahan Sarkar and F.A Talukdar " Noise and Linearity Optimization of 5.5 GHz Inductive Source Degeneration LNA using NSGA II Algorithm" accepted in *1st International Conference on Nano-electronics, Circuits & Communication Systems* (***Springer Proceedings***) 2015.
5. **Ram Kumar,** F.A Talukdar, Nilanjan dey, Amira Ashour and V.E.Balas "Histogram Thresholding in Image Segmentation: A Joint Level Set Method and Lattice Boltzmann Method based Approach accepted in *International Conference on Information Technology and Intelligent Transportation Systems, China 2015(**Springer Proceeding**).*
6. Abahan Sarkar, **Ram Kumar** and B.K Roy "On online Counting of Cigerate in Packet – An image Processing Approach", *1st International Conference on Nano-electronics, Circuits & Communication Systems* (***Springer Proceedings***) 2015.
7. **Ram Kumar**, S.S Devi, Abahan Sarkar and F.A Talukdar "State of the art Survey on Image segmentation Technique" *3rd International Conference on 'Computing, Communication and Sensor Network 2014* Vol no 5 pp 87-91**.**
8. S.S Devi, **Ram Kumar** and R.H.Laskar Recent Advances on Erythrocyte Image Segmentation for Biomedical Applications accepted in *4th International Conference on Soft Computing for Problem Solving* SocProS14 (***Springer Proceedings***)**.**
9. Abahan Sarkar, **Ram Kumar** and B.K Roy counting and Sorting of Ball - Freely Falling under Gravity", *3rd International Conference on 'Computing, Communication and Sensor Network 2014* Vol no 5.
10. **Ram Kumar,**Pragati Singh, Abahan Sarkar F.A Talukdar and Amulya Pandey "Integrated Edge Region based active contour using texture information" accepted in *CCEEDS* 2015.
11. Ch Anandini, **Ram Kumar** and F.A Talukdar "Low Noise Nanoscale Amplifier Design using Cascode" is accepted in *ICANN-2015* (***IEEE***).
12. Ch Anandini, F.A Talukdar and **Ram Kumar** "RF CMOS Low Noise Amplifier-A Review" accepted *in IEEE 2nd International conference on Microelectronics, Circuit & Systems* Micro-2015 *(**IEEE**).*

Book Chapter

1. **Ram Kumar**, Sweta Rani, Abahan Sarkar F.A.Talukdar "GPU Accelerated Level Set Method for MRI Brain Tumor Segmentation using Modified Probabilistic Clustering" *Classification and Clustering in Biomedical Signal Processing* (IGI Global) 2015.

2. Abahan Sarkar and **Ram Kumar,** "Study of Various Image Segmentation Methodologies-an Overview" is accepted *in* Applied Video Processing in Surveillance and Monitoring Systems (IGI Global) 2016.
3. Jyostna Rani, **Ram Kumar**, Abahan Sarkar and F.A.Talukdar "A Study on Various Image Processing Techniques and Hardware Implementation using Xilinx System Generator" *accepted in* Feature Detectors and Motion Detection in Video Processing (IGI Global) 2016.
4. Jyostna Rani, **Ram Kumar**, F.A.Talukdar and Nilanjan Dey "MRI Brain Tumor Segmentation using Fuzzy C- Means Technique- A Study " *accepted in* Recent Advances in Applied Thermal Imaging for Industrial Applications(IGI Global) 2016.