

CURRICULUM VITAE

Professor Amlan Chakrabarti

PERSONAL DATA :

Current Position: Professor and Director, A.K.Choudhury School of Information Technology

Affiliation: University of Calcutta, India

Date of Birth: May 16, 1975

Nationality: Indian

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Technology Campus, University of Calcutta
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EDUCATION:

- **Post Doctoral Researcher, School of Engineering, Princeton University, U.S.A, August 2011-September 2012.**
 - Area of Research – Quantum Computing Algorithms, Quantum Circuit Synthesis and CAD Tool Development.
- **Ph.D. (Tech.), University of Calcutta, 2010**
 - Area: Quantum Computing
 - Place of Work: Indian Statistical Institute, Kolkata
 - Supervisor: Prof. Susmita Sur-Kolay, Indian Statistical Institute, Kolkata
- **M. Tech., University of Calcutta, 2001, Radiophysics and Electronics, 1st Class (82%)**
- **M.Sc., University of Calcutta, 1998, Electronic Science. 1st Class (77%)**

- **B. Sc. (Honors in Physics), University of Calcutta, 1996, 1st Class (63%)**

PROFESSIONAL EXPERIENCE:

1. University of Calcutta, India:

- Dean Faculty of Engineering and Technology (Dec., 2017-Dec. 2019).
- Professor, A.K.Choudhury School of Information Technology (04/2016-Present).
- Associate Professor, A.K.Choudhury School of Information Technology (04/2013-03/2016).
- Reader, A.K.Choudhury School of Information Technology (04/2010-03/2013).
- Assistant Professor, A.K. Choudhury School of Information Technology (04/2007 – 31st March,2010).
- Sr. Lecturer, A.K. Choudhury School of Information Technology (04/2007 – 03/2009).
- Lecturer, A.K. Choudhury School of Information Technology (08/2006 – 03/2007).

2. Hamied Visiting Professor Fellow, University of Cambridge, May-2018.

3. ERASMUS MUNDUS LEADERS Fellow, University of Oradea, Romania, April-2018.

4. JSPS Invitation Fellow, Kyushu Institute of Technology, Japan, Jan-Feb, 2017.

5. Associated Member- European Organization for Nuclear Research (CERN), Since June 2015.

6. Visiting Researcher – University of Bremen, Germany (Feb 2014).

7. Visiting Scientist – International Program Committee Member for Future Projects, GSI Helmholtz Research Centre, Germany (Dec-2010).

8. Visiting Research Fellow – New York State University at Buffalo, Dept. Of Computer Science and Engineering (08/2007 to 10/2007).

9. West Bengal University of Technology, India – Lecturer Dept. Of Computer Science and Engineering (06/2005- 08/2006).

10. **Meghnad Saha Institute of Technology, India** — Senior Lecturer Dept. Of Computer Science and Engineering (06/2002 to 07/2005).
11. **International Institute of Information Technology, Kolkata, India** — Faculty (04/2001 to 05/2002).
12. **Nikkel India Corporation. (Subsidiary of Orcad Inc. Design Systems), Bangalore, India** – Electronic Design and Automation Engineer (09/1998 to 01/2000).

AWARDS AND RECOGNITION:

1. **IEEE Computer Society, Distinguished Visitor 2020-2022.**
2. **Siksha Ratna Award, Department of Higher Education, Govt. of West Bengal, 2018.**
3. **ACM Distinguished Speaker (2017-2020).**
4. **Hamied Visiting Professor Fellowship, University of Cambridge, 2018**
3. **ERASMUS MUNDUS LEADERS Fellowship, 2017**
4. **DST International Travel Grant, 2017**
5. **Jt. Secretary IEEE CEDA, India Council, 2016-2021**
6. **JSPS Invitation Fellowship for Research in Japan, 2016**
7. **CERN Travel Fellowship, 2015**
8. **Honorable Mention Award in VLSI Design Conference 2015, Bangalore**
9. **INSA Visiting Faculty Fellow 2014**
10. **Awarded BOYSCAST Fellowship in Engineering, by Department of Science of Technology, Govt. of India, 2011.**

TEACHING RECORD	
<i>Courses Taught (UG Level)</i>	<i>Courses Taught (PG Level)</i>
1. Data Structure and Algorithms	1. Graph algorithms
2. Embedded Systems	2. Machine Learning
3. Computer Architecture	3. CAD for VLSI
4. Operating Systems	4. Computer Vision
5. Database Management system	5. High Performance Computing
6. Computer Networks	6. Distributed Systems
7. Digital Signal and Image Processing	7. Quantum Computing
8. Java /PythonProgramming	8. Cyberphysixal Systems and IoT
9. VLSI Design	9. Reconfigurable Computing
10. Multimedia Systems	10. Ethics in research

FUNDED RESEARCH PROJECTS:

Sl. No.	Project Title	Worked As	Funding Agency	Amount (Rs)	Duration	Period	Status
1.	New Generation Communications and Security	Principal Supervisor (Ph.D. Research Funding)	Intel India	8 lacs	1 year	2019-2020	Ongoing
2.	Real time image based Machine Learning techniques for site specific insect pest and disease management of crops	Principal Investigator	DST, West Bengal	9.83 lacs	3 years	April 2019-March 2022	Ongoing
3.	Developing Open Source Tool Using Quantum based Feature Selection for High Dimensional Datasets	Principal Investigator	DST, Govt. of India	4.21 lacs	2 years	Sept 2018-August 2020	Ongoing
4.	Detection of An Unknown Stream Cipher and Recovery of Its Embedded Keys Through Cryptanalysis of a Class of Iterative Ciphers Using Fault Analysis	Principal Investigator	DRDO, Govt. of India	25 lacs	2 years	April 2018-March 2020	Ongoing
5.	Open Hardware based Communicable Digital Bio-Sensing Platform	Principal Investigator	MietY, Govt. of India	49.874 lacs	2 years	September 2017-August 2019	Ongoing
6.	3D Visualization for Brain and Spine Tumor Detection	Principal Investigator	UGC (UPE-II), Govt. of India	20 lacs	3 years	September 2017-August 2020	Ongoing
7.	CBM-India Project	Co-Principal Investigator	DST, Govt. of India	20 lacs	3year	April 2016-March 2019	Ongoing
8.	Task Mapping and Scheduling in Dynamically Reconfigurable Heterogeneous Real-time Systems.	Principal Supervisor (Ph.D. research Funding)	Tata Consultancy Services	14 lacs	4 year	May 2014-April 2018	Completed
8.	Center for Systems Biology and Bio-Medical Engineering	Joint-Principal Investigator	MHRD (TEQIP-II)	5 Crores	3 years	September 2013-August 2016	Completed
9.	Measurement Of Lateral Curvature, Modelling And Measurement Of 3D	Principal Investigator	Ministry of Social Empowerment , Govt. Of India	11 lacs	3 years	April 2011-March 2014	Completed
10.	Development of FPGA based Data Acquisition System and related Hardware for CBM Muon Detection	Co-Principal Investigator	DST, Govt. of India	47 lacs	5 years	April 2009-March 2014	Completed
11.	Stereo Image Processing for Unmanned Ground Vehicle	Principal Investigator	DRDO, Govt. of India	5 lacs	2 Years	April 2004-March 2006	Completed

RESEARCH GUIDANCE (Awarded):

Sl. No	Candidate Name	Thesis Title	Remark	Supervisor(s) Name
1.	Jyoti Prakash Singh	Temporal Characterization of Mobile Ad Hoc Network Environment	Awarded in 2016	Prof. Amlan Chakrabarti and Prof. Paramartha Dutta
2.	Arindam Ray	Effective Delivery Model for Technology Enabled Learning Using Physiological Signals	Awarded in 2018	Prof. Amlan Chakrabarti
3.	Saptarsi Goswami	Meta features and clustering based approaches for feature selection	Awarded in 2018	Prof. Amlan Chakrabarti and Prof. Basabi Chakraborty
4.	Suman Sau	Design of Efficient Secure Data Communication Techniques for Reconfigurable Hardware Platform	Awarded in 2018	Prof. Amlan Chakrabarti
5.	Chandrajit Pal	Implementation And Evaluation Of Image And Video Processing Algorithms On Reconfigurable Architecture	Awarded in 2018	Dr. Ranjan Ghosh and Prof. Amlan Chakrabarti
6.	Sangeet Saha	Task Mapping and Scheduling in Dynamically Reconfigurable Heterogeneous Real-time System	Awarded in 2018	Dr. Ranjan Ghosh Dr. Arnab Sarkar and Prof. Amlan Chakrabarti
7.	Rourab Paul	Studies and Design Exploration of Crypto Implementations on Reconfigurable Hardware	Awarded in 2018	Dr. Ranjan Ghosh and Prof. Amlan Chakrabarti
8.	Biswajit Patra	Development of CAD Techniques for Studying Signal Integrity and Power Delivery Network System for Wireless SOC with Advanced Technology Nodes (45nm and below)	Awarded in 2018	Prof. Amlan Chakrabarti and Dr. Sanatan Chattopadhyay
9.	Satyabrata Maity	Design and Implementation of Novel Summarization Technique for Video Analysis	Awarded in 2018	Prof. Amlan Chakrabarti and Prof. Debotosh Bhattacharjee
10.	Subhankar Bhattacharya	Design, Analysis and Implementation of Broadband Communication System Applicable to WLAN	Awarded in 2019	Prof. Sanjib Sil Prof. Amlan Chakrabarti

Patent:

1. Title: “A SYSTEM AND METHOD FOR ANALYZING VIDEOS OF APPLICATION AND FUNCTION FOR FUTURE IDENTIFICATION OF VIDEOS AND RELATED APPLICATION AND FUNCTION” Indian patent filed in July 2015, No. 628/KOL/2015.
2. Title: “FINDING OPTIMAL WATER CONSUMPTION AND LEAKAGE RATE IN A RESIDENTIAL AREA USING A SMART SYSTEM”, Indian Patent filed in October 2019, Application No. R20191032301.
3. Title: "A SYSTEM METHOD FOR DETECTING PLATELET FUNCTION USING UV LIGHT AND DEEP LEARNING ANALYSIS OF MICROSCOPIC IMAGES", Indian Patent filed in November 2019, Application No.: 201931048635
4. Title: “INTERNET-OF-THINGS BASED SYSTEMS AND METHODS FOR MONITORING QUALITY OF EDIBLE PRODUCTS” Indian Patent filed in April 2020, Application No.: 202031017818

Copyright:

“3D Reconstruction and Slicing of MR Images of Brain”, **A. Chakrabarti**, S. Ghoshal, P.Chatterjee and S. Banu, Indian Copyright Registration No.:L-69022/2017.

Books (Co-Authored):

1. **Denoising Filters for Image Enhancement: Design and Implementation:** C. Pal, **A. Chakrabarti**, D. Bhattacharjee, R. Ghosh, *Springer Singapore* (accepted for publication).
2. **Data Management, Analytics and Innovation**, V. E. Balas, N. Sharma and **A. Chakrabarti**, Springer Singapore, ISBN: 978-981-13-1274-8, 2019.
3. **Ad Hoc Networks: A Statistical Perspective:** J.P. Singh, P. Dutta and **A. Chakrabarti**, *Springer Singapore*, ISBN: 978-981-10-8769-1, 2018.
4. **Advances in Computing Applications**, Springer Singapore, **A. Chakrabarti**, N. Sharma and V. E. Balas, ISBN 978-981-10-2629-4, 2016.

List of Journal Publications (Selected):

1. R. Paul, J. Mitra, H. Dey, S. Sau, P. Baidya, R. Ghosh, A. Chakrabarti, "Secure Multi-Gigabit Optical Link Design for High Energy Physics Experiment with Acceleration of More Secure RC4 Variant in Reconfigurable Platform," *IOP Journal of Instrumentation* (Accepted).
2. S. Ghoshal, S. Banu, **A. Chakrabarti**, S. Sur-Kolay, A. Pandit, "3D Reconstruction of Spine Image from 2DMRI Slices along One Axis", *IET Image Processing*, 2020, DOI: 10.1049/iet-ipr.2019.0800
3. B. Biswas, S. Bhattacharyya; **A. Chakrabarti**, K. N. Dey, J. Platos and V. Snasel, "Colonoscopy contrast-enhanced by intuitionistic fuzzy soft sets for polyp cancer localization," *Elsevier Applied Soft Computing*, June 2020, DOI: 10.1016/j.asoc.2020.106492
4. J. Mukherjee, M. Kar, **A. Chakrabarti** and S. Das, "A soft-computing based approach towards automatic detection of pulmonary nodule," *Elsevier Journal of Biocybernetics and Biomedical Engineering*, Vol. 40, Issue 3, July–September 2020, Pages 1036-1051.
5. S. Ghoshal, S. Banu, **A. Chakrabarti**, S. Sur-Kolay and A. Pandit, "3D Reconstruction of Spine Image from 2DMRI Slices along One Axis," *IET Image Processing*, 2020, doi:10.1049/iet-ipr.2019.0800
6. A. Mazumadar, S. Saha and **A. Chakrabarti**, "EAAM : Energy Aware Application Management Strategy for FPGA based IoT-Cloud Environments," *Springer The Journal of Supercomputing*, March 2020, <https://doi.org/10.1007/s11227-020-03240-y>
7. P. Das, C. Pal, **A. Chakrabarti**, A. Acharya, S. Basu, "Adaptive Denoising of 3D Volumetric MR Images Using Local Variance Based Estimator Biomedical Signal Processing and Control," *Elsevier Biomedical Signal Processing and Control*, Vol. 59, 2020, <https://doi.org/10.1016/j.bspc.2020.101901>
8. S. Chakraborty, S.H. Shaikh, A. Chakrabarti and R. Ghosh, "A hybrid quantum feature selection algorithm using a quantum inspired graph theoretic approach," *Springer Applied Intelligence*, Vol. 50, pp. 1775–1793 (2020). <https://doi.org/10.1007/s10489-019-01604-3>
9. J. Mukherjee, T. Poddar, M. Kar, B. Ganguly and **A. Chakrabarti**, "A Feature based Automated Classification of Imbalanced Subcentimeter Pulmonary Structures in Thoracic Computed Tomography Images", *Elsevier Computers and Electrical Engineering* (Accepted), Vol. 84, 2020, <https://doi.org/10.1016/j.compeleceng.2020.106629>

10. K. Guha, A. Majumder, D. Saha and **A. Chakrabarti** , “Dynamic Power Aware Scheduling of Real Time Tasks for FPGA based Cyber Physical Systems Against Power Draining Hardware Trojan Attacks,” *Springer The Journal of Supercomputing* (2020) , <https://doi.org/10.1007/s11227-020-03184-3>
11. B. Biswas, S. Kr Ghosh, S. Bhattacharyya, J. Platos, V. Snásel and **A. Chakrabarti**, “Chest X-ray enhancement to interpret pneumonia malformation based on fuzzy soft set and Dempster-Shafer theory of evidence,” *Elsevier Applied Soft Computing*, Vol. 86 (2020).
12. P.Ray and **A. Chakrabarti**, “A Mixed approach of Deep Learning method and Rule-Based method to improve Aspect Level Sentiment Analysis,” *Elsevier Applied Computing and Informatics*, <https://doi.org/10.1016/j.aci.2019.02.002>
13. K. Guha, D. Saha and **A. Chakrabarti**, “Stigmergy based Security for SoC Operations from Runtime Performance Degradation of SoC Components,” *ACM Transactions on Embedded Computing System*, Vol. 18, pp. 14:1--14:26, 2019.
14. T. Biswas, S. Mandal, D. Saha and **A. Chakrabarti**, “FPGA based dual microphone speech enhancement,” *Springer Microsystem Technologies*, Vol. 25, pp. 765-775, 2019.
15. M. Chakraborty, D. Saha, **A. Chakrabarti** and Sayani Bindai, “A CAD approach for pre-layout optimal PDN design and its post-layout verification,” *Elsevier Microprocessors and Microsystems - Embedded Hardware Design* Vol. 65, pp. 158-168, 2019.
16. K. Baital and **A. Chakrabarti**, “Dynamic Scheduling of Tasks for Multi-core Real Time Systems based on Optimum Energy and Throughput,” *IET Computers & Digital Techniques*, Vol. 13, pp. 93 – 100, 2019.
17. K. Baital and **A. Chakrabarti**, “Dynamic Scheduling of Real-Time Tasks in Heterogeneous Multicore Systems,” *IEEE Embedded Systems Letters*, Volume: 11, pp. 29-32, March 2019.
18. S. Goswami, A.K. Das, P. Guha, A. Tarafdar, S. Chakraborty, **A. Chakrabarti** and B. Chakraborty, "An approach of feature selection using graph-theoretic heuristic and hill climbing," *Springer Pattern Analysis Applications* (2017). Vol. 22, pp. 615–631, 2019
19. P. Ray, **A. Chakrabarti**, Bhaswati Ganguli and P. K. Das, “Demonetization and its aftermath: an analysis based on twitter sentiments,” *Springer Sadhana Indian National Science Academy Proceedings in Engineering Sciences*, Vol. 43, Issue 11, November 2018.

20. A. Pal, P. Dutta, **A. Chakrabarti**, J.P. Singh and S. Sadhu, "Biogeographic- Based Temporal Prediction of Link Stability in Mobile Ad Hoc Networks," *Springer Wireless Personal Communications*, Vol. 104, pp. 217-233, 2019.
21. R. Paul, **A. Chakrabarti** ; R. Ghosh and G. Sikdar, "A Hardware Variant NSP with Security Aware Automated Preferential Algorithm," *IET Computers & Digital Techniques*, Vol.12 , pp. 192-205, 2018.
22. K. Regan, **A. Chakrabarti** and C. Guan, "Algebraic and Logical Emulations of Quantum Circuits," *Springer Transactions on Computational Science*, Vol. XXXI, pp. 41-76, 2018.
23. S. Saha, A. Sarkar, **A. Chakrabarti** and R. Ghosh, "Co-scheduling Persistent Periodic and Dynamic Aperiodic Real-Time Tasks on Reconfigurable Platforms," *IEEE Transactions on Multi-Scale Computing Systems (TMSCS)* , Vol. 4, pp. 41-54, 2018.
24. T. Biswas, S. Mandal, D. Saha and **A. Chakrabarti**, "Coherence Based Dual Microphone Speech Enhancement Technique Using FPGA," *Elsevier Microprocessors and Microsystems*, Vol. 55, pp. 111-118, 2017.
25. M. Ghosh, **A. Chakrabarti** and N.K. Jha, "Automated Quantum Circuit Synthesis and Cost Estimation for the Binary Welded Tree Oracle," *ACM Journal on Emerging Technologies in Computing Systems*, Vol.13, Issue 4, pp. 51:1-51:14, 2017.
26. C. Pal, P. Das, **A. Chakrabarti** and R. Ghosh, "Rician noise removal in magnitude MRI images using efficient Anisotropic diffusion filtering", *Wiley-Blackwell International Journal of Imaging Systems and Technology* , Vol. 27, No. 3, pp. 248-264, Sept. 2017.
27. A.K. Das, S. Goswami, **A. Chakrabarti** and B. Chakraborty, "A new hybrid feature selection approach using Feature Association Map for supervised and unsupervised classification," *Elsevier Expert Systems with Applications*, Vol. 88, pp. 81-94, 2017.
28. S. Saha, A. Sarkar and **A. Chakrabarti**, "Spatio-Temporal Scheduling of Preemptive Real-Time Tasks on Partially Reconfigurable Systems," *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, Vol. 22, pp. 71:1-71:26, 2017.
29. S. Mandal, J. Saini, S. Sau, **A. Chakrabarti**, Wojciech Zabolotny and S. Chattopadhyay, "An FPGA based High Speed Error resilient Data aggregation and control for High Energy Physics Experiment" *IEEE Transactions on Nuclear Science*, Vol. 64 , pp. 933-944, 2017.

30. S. Mandal, R. Paul, S. Sau, **A. Chakrabarti** and S. Chattopadhyay, "Efficient Dynamic Priority Based Soft Error Mitigation Techniques For Configuration Memory of FPGA Hardware," *Elsevier Microprocessors and Microsystems*, Volume 51, pp. 313-330, 2017.
31. K. Guha, D. Saha and **A. Chakrabarti**, "Real Time SoC Security against Passive Threats using Crypsis Behavior of Geckos," *ACM Journal on Emerging Technologies in Computing Systems*, Vol. 13, Issue:3, pp. 41:1--41:26, 2017.
32. S. Mandal, R. Paul, S. Sau, **A. Chakrabarti** and S. Chattopadhyay, "A Novel Method for Soft Error Mitigation in FPGA using Modified Matrix Code" *IEEE Embedded System Letters*, 10.1109/LES.2016.2603918, August, 2016.
33. S. Maity, **A. Chakrabarti** and D. Bhattacharjee, "A Novel Approach for Human Action Recognition from Silhouette Images", *IETE Journal of Research*, DOI: 10.1080/03772063.2016.1242383, 2016.
34. A. Ray and **A. Chakrabarti**, "Design and Implementation of Technology Enabled Affective Learning using Fusion of Bio-physical and Facial Expression," *Journal of Educational Technology & Society*, Vol. 19, Issue 4, <http://www.ifets.info/upcoming/5201.pdf>
35. S. Goswami, **A. Chakrabarti**, B. Chakraborty, "An efficient feature selection technique for clustering based on a new measure of feature importance," *Journal of Intelligent & Fuzzy Systems*, DOI: 10.3233/IFS-162156
36. C. Pal, A. Kotal, **A. Chakrabarti**, and R. Ghosh, "An efficient FPGA implementation of Anisotropic diffusion filtering on Images," *Hindawi International Journal of Reconfigurable Computing*, <http://dx.doi.org/10.1155/2016/3020473>.
37. S. Sau, S. Mandal, J. Saini, **A. Chakrabarti** and S. Chattopadhyay, "High speed fault tolerant secure communication for muon chamber using FPGA based GBTx emulator," *IOP Journal of Physics Conference Series*, Vol. 664, No. 8.
38. M. Chakraborty, K. Guha, D. Saha, P. Mitra and **A. Chakrabarti**, "Pre-Layout Decoupling Capacitance Estimation and Allocation for Noise-Aware Crypto-SoC Applications," *Journal of Low Power Electronics (JOLPE)*, Vol. 11, No. 3, pp. 333-339, 2015.
39. R. Paul, **A. Chakrabarti** and R. Ghosh, "Multi Core SSL/TLS Security Processor Architecture and its FPGA Prototype Design with Automated Preferential Algorithm," *Elsevier Microprocessors and Microsystems*, Volume 40, pp. 124-136, 2015.

40. S. Ghosal, P. Chatterjee, **A.Chakrabarti** and K.N.Dey, "Medical Image Fusion using Daubechies Complex Wavelet and Near Set," *Springer Transactions on Computational Science XXV, Special Issue on Computer Vision / Image Processing Techniques and Applications*, LNCS, pp. 90-111, ISBN: 978-3-662-47073-2 (Print) 978-3-662-47074-9 (Online), 2015.
41. S.Saha, A.Sarkar and **A. Chakrabarti**, "Scheduling Dynamic Hard Real-Time Task Sets on Fully and Partially Reconfigurable Platforms," *IEEE Embedded System Letters* , Vol.7, Issue: 1, pp. 23-26, 2015.
42. S.B.Mondal, **A.Chakrabarti**, and S.Sur-Kolay, "Quantum Ternary Circuit Synthesis Using Projection Operations," *Journal of Multiple-Valued Logic and Soft Computing*, Vol 21, Issue 1-4, pp. 73-92, January 2015.
43. J. Mukherjee, R. Kundu, **A. Chakrabarti**, "Variability of Cobb angle measurement from digital X-ray image based on different de-noising techniques," *International Journal of Biomedical Engineering and Technology (IJBET) Inderscience*, Vol. 16, No. 2, 2014.
44. C.C. Lin, **A. Chakrabarti**, N. K. Jha, "QLib: Quantum module library," *ACM Journal on Emerging Technologies in Computing Systems (JETC)*, V. 11 Issue 1, Article No. 7, September 2014.
45. J. P. Singha, P. Dutta, and **A. Chakrabarti**, "Weighted delay prediction in mobile ad hoc network using fuzzy time series," *Egyptian Informatics Journal- Elsevier*, Vol. 15, Issue 2, pp. 105-104, July 2014
46. CC Lin, **A. Chakrabarti** and N.K.Jha, "'FTQLS: Fault-Tolerant Quantum Logic Synthesis," *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, Vol. 22, No.6, pp. 1350-1363, June 2014.
47. B.Patra, **A. Chakrabarti** and S. Chattopadhyay, "Post Optimization of a Clock Tree for Dynamic Clock Tree Power Reduction in 45nm and below Technology Nodes," *Journal of Low Power Electronics (JOLPE)*, Vol. 10, No. 1, pp. 32-37, April 2014.
48. C.C. Lin, **A. Chakrabarti**, N. K. Jha, "Optimized Quantum Gate Library for Various Physical Machine Descriptions," *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, Vol. 21, No.11, pp. 2055-2068, Nov. 2013
49. **A. Chakrabarti** and S. Sur-Kolay, "Nearest Neighbor based Synthesis of Quantum Boolean Circuits", *Engineering Letters*, vol. 15, no. 2, 2007.
50. **A. Chakrabarti** and S. Sur-Kolay, "Realization of Quantum Boolean Circuits using Garbage Free Fredkin Operations", *International Journal of Computer Sciences and Engineering Systems*, 2008.

Book Chapters:

1. N. Chatterjee, **A. Chakrabarti**, PP.Das, "Software Regression and Migration Assistance Using Dynamic Instrumentation,." Advanced Computing and Systems for Security. Advances in Intelligent Systems and Computing, vol 897. Springer, Singapore, 2019.
2. T. Biswas, S. Bhattacharjee, S. B. Mandal, D. Saha and **A. Chakrabarti**, FPGA-Based Novel Speech Enhancement System Using Microphone Activity Detector, Advanced Computing and Systems for Security, Print ISBN 978-981-13-3249-4, 2018.
3. S. Mukherje, F. Costa, R. Paul, **A. Chakrabarti**, S. A. Khan, J. Mitra, and T. Nayak, "Implementation and Evaluation of Glue Logic for Various Configuration Schemes Based on I2C and HDLC Protocol for ALICE Common Readout Unit (CRU)," Advanced Detectors for Nuclear, High Energy and Astroparticle Physics. Springer Proceedings in Physics, vol 201. 2018.
4. S. Guha Roy and **A. Chakrabarti**, A Novel Graph Clustering Algorithm Based On Discrete Time Quantum Random Walk, Quantum Inspired Computational Intelligence, Morgan Kaufmann, 2017, ISBN: 9780128044094.
5. K. Baital and **A. Chakrabarti**, "An Efficient Dynamic Scheduling of Tasks for Multicore Real-Time Systems, "Advances in Computing Applications. Springer, Singapore, Print ISBN 978-981-10-2629-4, 2016
6. R. Kundu, **A.Chakrabarti** and P. K. Lenka, "Automated Vertebral Segmentation from CT Images for Computation of Lumbolumbar Angle", Springer Applied Computation and Security Systems, pp. 71-81, Print ISBN 978-81-322-1984-2, 2015.
7. S. Ghosal, P. Chatterjee, **A.Chakrabarti** and K.N.Dey, "Medical Image Fusion using Daubechies Complex Wavelet and Near Set", Springer Transactions on Computational Science XXV, Special Issue on Computer Vision / Image Processing Techniques and Applications, LNCS, pp. 90-111, ISBN: 978-3-662-47073-2 (Print) 978-3-662-47074-9 (Online), 2015.
8. S. Maity, **A. Chakrabarti** and D. Bhattacharjee, "An Innovative Technique for Adaptive Video Summarization", Springer Communications in Computer and Information Science, 1, Volume 157, Computer Networks and Intelligent Computing, Part 10, pp. 592-600, 2011.
9. S. Samanta, S. Paik, S. Gangopadhyay and **A. Chakrabarti**, "Processing of Image Data Using FPGA-Based MicroBlaze Core", Springer Communications in Computer and Information Science, 1, Volume 169, High Performance Architecture and Grid Computing, Part 2, pp. 241-246, 2011.

10. A. Ray and A. Chakrabarti, Design and Implementation of Affective E-Learning Strategy Based, Volume 132, pp. 613-622, 2012.

Publications in Proceedings of International Conferences:

1. K. Guha, D. Saha and A. Chakrabarti, "Blockchain Technology Enabled Pay Per Use Licensing Approach for Hardware IPs," Accepted for Publication in the Proc. Of Design, Automation and Test in Europe Conference (DATE) 2020.
2. K. Guha, D. Saha and A. Chakrabarti, "Multi-Agent Co-operative Model to Facilitate Criticality based Reliability for Mixed Critical Task Execution on FPGA based Cloud Environment," Proc. Of 33rd International Conference on VLSI Design and 16th International Conference on Embedded Systems (VLSID 2020).
3. K. Guha, D. Saha and A. Chakrabarti, "Zero Knowledge Authentication for Reuse of IPs in Reconfigurable Platforms," TENCON 2019 - 2019 IEEE Region 10 Conference (TENCON), Kochi, India, 2019, pp. 2040-2045, doi: 10.1109/TENCON.2019.8929584.
4. S. Sarkar, A. Chakrabarti and D. P. Mukherjee, "Generation of Ball Possession Statistics in Soccer Using Minimum-Cost Flow Network," Proc. Of IEEE Conference on Computer Vision and Pattern Recognition Workshops, CVPR Workshops, 2019.
5. K. Guha, D. Saha and A. Chakrabarti, "Zero Knowledge Authentication for Reuse of IPs in Reconfigurable Platforms," Proc. Of IEEE Region 10 Conference (TENCON), pp.2040-2045, 2019.
6. M. Acharya, S. Basu, B. Narayan Behera and A. Chakrabarti, "Approximate Computing Based Adder Design for DWT Application," Proc. of 23rd International Symposium on VLSI Design and Test (VDATE-2019), July 4-6, 2019, Indore.
7. S. Sarkar, A. Chakrabarti and D. P. Mukherjee, "Generation of Ball Possession Statistics in Soccer using Minimum-Cost Flow Network," Proc. of IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW) , 2019.

8. S. Mandal, S. Sarkar, W. M. Ming, A. Chattopadhyay, A Chakrabarti, "Criticality Aware Soft Error Mitigation in the Configuration Memory of SRAM based FPGA," *Proc. of 32nd International Conference on VLSI Design and 15th International Conference on Embedded Systems (VLSID 2019)*.
9. K. Guha, A. Majumder, D. Saha, A. Chakrabarti, "Reliability Driven Mixed Critical Tasks Processing on FPGAs Against Hardware Trojan Attacks," *Proc. of 21st Euromicro Conference on Digital System Design (DSD 2018)*.
10. K. Guha, D. Saha, and A. Chakrabarti, "SARP: Self Aware Runtime Protection Against Integrity Attacks of Hardware Trojans," *Proc. of 22nd International Symposium on VLSI Design and Test (VDATE 2018)*.
11. K. Guha, S. Saha and A. Chakrabarti, "SHIRT (Self Healing Intelligent Real Time) Scheduling for Secure Embedded Task Processing," *Proc. of 31st International Conference on VLSI Design and 15th International Conference on Embedded Systems (VLSID 2018)*.
12. A. Majumder, Sangeet Saha, A. Chakrabarti, "Task Allocation Strategies for FPGA Based Heterogeneous System on Chip", *Proc. of International Conference on Computer Information Systems and Industrial Management, CISIM 2017*.
13. C. Pal, D. Biswas, K. Maharatna and A. Chakrabarti, "Architecture for complex network measures of brain connectivity", *Proc. of IEEE International Symposium on Circuits and Systems (ISCAS 2017)*.
14. M. Chakraborty, D. Saha and A. Chakrabarti, "A CAD approach for on-chip PDN with power and supply noise reduction for multi-voltage SOCS in pre-layout stage", *Proc. of IEEE 7th International Symposium on Embedded computing and system Design (ISED 2017)*.
15. S. Ghoshal, P. Chatterjee, S. Banu, A. Chakrabarti and Eleni Mangina, "A Software tool for 3D visualization and slicing of MR images" *Proc. of 10th EAI International Conference on Simulation Tools and Techniques (SIMUtools 2017)*.

16. K. Guha, D. Saha and A. Chakrabarti, "Self Aware SoC Security to Counteract Delay Inducing Hardware Trojans at Runtime", *Proc. of 30th International Conference on VLSI Design and 15th International Conference on Embedded Systems (VLSID 2017)*.
17. S. Maity, A. Chakrabarti and D. Bhattacharjee, "Block-Based Quantized Histogram (BBQH) for efficient background modeling and foreground extraction in video," *Proc. of 2nd International Conference on Data Management, Analytics and Innovation (ICDMAI 2017)*.
18. M. Chakraborty, A. Chakrabarti, P. Mitra, D. Saha and K. Guha, "Pre-layout module wise decap allocation for noise suppression and accurate delay estimation of SoC," *Proc. of 20th International Symposium on VLSI Design and Test (VDATE 2016)*.
19. B. Patra, A. Brahmachari, S. Ganguly, A. Singh, V. Subramanian, A. Chakrabarti and S. Chattopadhyay, "Integrated chip and package co-analysis for early data-driven package bump & ball optimization on Value-Tier Smartphone products", *Proc. of 53rd Design Automation Conference 2016 (DAC 2016)*.
20. S. Basu, S. B. Mandal, A. Chakrabarti and Susmita Sur-Kolay, "An Efficient Synthesis Method for Ternary Reversible Logic", *Proc. of IEEE International Symposium on Circuits and Systems 2016 (ISCAS 2016)*.
21. J. Mitra, S. Ahmad Khan, R. Paul, S. Mukherjee, A. Chakrabarti and T. Kumar Nayak, "Error Resilient Secure Multi-Gigabit Optical Link Design for High Energy Physics Experiment," *Proc. of 29th International Conference on VLSI Design and 15th International Conference on Embedded Systems (VLSID 2016)*.
22. S. Mandal, Suman Sau, A. Chakrabarti, Sushanta Pal, and Subhasish Chattopadhyay, "FPGA Implementation of High Speed Latency Optimized Optical Communication System Based on Orthogonal Concatenated Code," *Proc. of 24th ASIAN TEST SYMPOSIUM (ATS 2015)*.
23. S. Mandal, Suman Sau, A. Chakrabarti, Sushanta Pal, and Subhasish Chattopadhyay, "FPGA based Novel High Speed DAQ System Design with Error Correction," *Proc. of IEEE Annual Symposium in VLSI (ISVLSI 2015)*.

24. P. Niemann, S. Basu, A. Chakrabarti, Niraj K. Jha and Robert Wille, "Synthesis of Quantum Circuits for Dedicated Physical Machine Descriptions," *Proc. of 7th Conference on Reversible Computation (RC 2015)*.
25. K. Guha, Debasri Saha and A. Chakrabarti, "RTNA: Securing SOC Architectures from Confidentiality Attacks at Runtime using ART1 Neural Networks," *Proc. of 19th International Symposium on VLSI Design and Test (VDATE 2015)*.
26. C. Pal, P. Das, S.B Mandal, S. Basu, A. Chakrabarti and R. Ghosh, "An efficient hardware design of SIFT algorithm using fault tolerant reversible logic," *Proc. of 2nd IEEE International Conference on Recent Trends in Information Systems (RETIS 2015)*.
27. B. Biswas, A. Chakrabarti and K. N. Dey, "Image Registration Method using Harris Corner and Modified Hausdorff Distance with Near Set," *Proc. of 2nd IEEE International Conference on Recent Trends in Information Systems (RETIS 2015)*.
28. S. Ghosh, S. J. Das, R. Paul and A. Chakrabarti, "Multicore Encryption and Authentication on a Reconfigurable Hardware," *Proc. of 2nd IEEE International Conference on Recent Trends in Information Systems (RETIS 2015)*.
29. S. Goswami, A. Chakrabarti, B. Chakraborty, "Analysis of correlation structure of data set for efficient pattern classification," *Proc. of 2nd IEEE International Conference on Cybernetics (CYBCONF 2015)*.
30. B. Biswas, R. Choudhuri, A. Chakrabarti and K. N. Dey, "A New Multi-focus Image Fusion Method Using Principal Component Analysis in Shearlet Domain," *Proc. of ACM Permin15, 2015*.
31. B. Biswas, S. Ghoshal, P. Chatterjee, A. Chakrabarti, K. N. Dey, "Multi-focus Image Fusion Method Based on Linked Twist Map (LTM) in Shearlet Domain," *Proc. of 4th IEEE International Conference on Signal Processing and Integrated Networks (SPIN-15)*.

32. B. Biswas, S. Ghoshal, P. Chatterjee, A. Chakrabarti, K. N. Dey, iMedical Image Fusion by Combining SVD and Shearlet Transform, *Proc. of 4th IEEE International Conference on Signal Processing and Integrated Networks (SPIN-15)*.
33. B. Biswas, K. N. Dey, A. Chakrabarti, iMedical Image Registration Based on Grid matching using Hausdorff Distance and Near set, *Proc. of IEEE ICPAR, 2014*.
34. B. Biswas, A. Chakrabarti, K. N. Dey, iMedical Image Fusion Using Regional Statistics of Shift-invariant Shearlet Domain, *Proc. of IEEE Conference on Biomedical Engineering and Sciences (IECBES 2014)*.
35. K. Guha, R. R. Sahani, M. Chakraborty, A. Chakrabarti, D. Saha, iAnalysis of Secret Key Revealing Trojan Using Path Delay Analysis for Some Cryptocores, *Proc. of Frontiers in Intelligent Computing, Theory and Application (FICTA 2014)*.
36. M. Chakraborty, K. Guha, A. Chakrabarti, D. Saha, iAnalysis of power distribution network for some cryptocores, *Proc. of 3rd International Conference on Advances in Computing, Communications and Informatics (ICACCI 2014)*.
37. T. Biswas, C. Pal, S. B. Mandal, A. Chakrabarti, iAudio de-noising by spectral subtraction technique implemented on reconfigurable hardware, *Proc. of Seventh International Conference on Contemporary Computing (IC3 2014)*.
38. S.B.Mondal, S.Sur-Kolay and A.Chakrabarti, iSynthesis of Ternary Grover's Algorithm, *Proc. of IEEE 41st International Symposium on Multiple-Valued Logic (ISMVL 2014), Bremen Germany, 19-21 May 2014*.
39. S. Ghoshal, P. Chatterjee, B. Biswas, A. Chakrabarti and K. N. Dey, "A Novel Method for Automatic Image Registration Based on Wavelet and Near Fuzzy Set, *Proc. of IEEE INDICON 2013, 13-15 Dec 2013, IIT Mumbai*.
40. C. Pal, C. Pal, K. N. Chaudhury, A. Samanta, A. Chakrabarti and Ranjan Ghosh, "Hardware software co-design of a fast bilateral filter in FPGA, *Proc. of IEEE INDICON 2013, 13-15 Dec 2013, IIT Mumbai*.

41. S. Saha, A. Chakrabarti and Ranjan Ghosh, "Exploration of Multi-thread Processing on XILKERNEL for FPGA Based Embedded Systems, *Proc. of 19th International Conference on Control Systems and Computer Science, 29-31 May 2013, Romania.*
42. A.Chakrabarti, CC Lin and N.K. Jha, "Design of Quantum Circuits for Random Walk Algorithms, *Proc. of IEEE Annual Symposium on VLSI (ISVLSI-2012), University of Massachusetts, Amherst, USA, Aug 19-21. 2012.*
43. S.B. Mandal, A.Chakrabarti and S. Sur-Kolay, "A Synthesis Method for Quaternary Quantum Logic Circuits, *Proc. of the VLSI Design and Test Symposium (VDAT-2012), Kolkata, July 2012. DOI: 10.1007/978-3-642-31494-0_31.*
44. B.Patra, S. Chattopadhyay and A. Chakrabarti, "A Novel Approach To Voltage-Drop Aware Placement in Large SoCs, in Advanced Technology nodes," *Proc. of the VLSI Design and Test Symposium (VDAT-2012), Kolkata, July 2012. DOI: 10.1007/978-3-642-31494-0_44.*
45. S.B.Mondal, S.Sur-Kolay and A.Chakrabarti, "Synthesis Techniques For Ternary Quantum Logic," *Proc. of IEEE 41st International Symposium on Multiple-Valued Logic (ISMVL 2011), Tuusula Finland, 23-25 May 2011, IEEE DOI: 10.1109/ISMVL.2011.55.*
46. S. Sau, C. Pal and A.Chakrabarti, "Design and implementation of real time secured RS232 link for multiple FPGA communication," *Proc. of 2011 International Conference on Communication, Computing & Security (ICCCS 2011), NIT Rourkela, 12th -14th February, 2011, ACM DOI: 10.1145/1947940.1948022.*
47. A. Som and A. Chakrabarti, "A New BSQDD Approach for Synthesis of Quantum Circuits," *Proc. of International Symposium on Electronic System Design (ISED) 2011, published by IEEE Computer Society, 19th -21st December 2011, Kochi, India.*
48. S. Bhattacharjee, S. Sil, S. Dey and A. Chakrabarti, "Simulation, Design and Analysis of a Low Power MIMO-OFDM System and its Implementation on FPGA," *Proc. of International Conference on Recent Trends in Information Systems (RETIS-2011),*

published by IEEE Computer Society 21st- 23rd Dec. 2011, Jadavpur University, Kolkata.

49. A. Pal, T. Roy, B. Das, S. Maity, S. B. Mandal, A. Chakrabarti, Design of an Efficient Quantum Circuit Simulator, *Proc. of International Symposium on Electronic System Design (ISED 2010)*, 20-22nd December, Bhubaneswar, India.
50. A. Chakrabarti and S. Sur-Kolay, iDesigning Quantum Adder Circuits and Evaluating Their Error Performance, *Proc. IEEE International Conference on Electronic Design 08*, Penang, Malaysia, December 2008.
51. A. Chakrabarti and S.Sur-Kolay, iRules for Synthesizing Quantum Boolean Circuits using Minimized Nearest-Neighbour Templates", *Proc. 15th International Conference on Advanced Computing & Communication (IEEE-ADCOM) 2007*, December 18-21, IIT Guwahati India.
52. S.Misra and A.Chakrabarti, "An Efficient Approach to Estimate Velocity Fields Using Optical Flow and Wavelet Transform," *Proc. WORLDCOMP '07 : IPCV-07*, Las Vegas U.S.A., June 25-28, 2007.
53. A.Chakrabarti, S.Sur-Kolay and Mousumi Malakar; iA Programming Model for Quantum Computing Simulator, *Proc. IEEE International Conference on Computer and Devices for Communication CODEC -2006*, Kolkata.

Invited Lectures Abroad:

- (i) IEEE Distinguished Lecture Series Webinar on "Demystifying Medical Image Analysis and Visualization using Machine Learning", 10th June 2020
- (ii) Invited lecture titled "Trends in Computer-Aided Diagnosis Using Deep Learning", IEEE TENSYP, 7th June 2020.
- (iii) IEEE Webinar on "Data Science in Epidemiology: A Tool To Combat COVID-19", 31st May 2020, IEEE BUET Chapter, Bangladesh
- (iv) ACM Distinguished Speaker Lecture titled "Medical Image Processing: Analysis and Visualization", International Symposium on Advanced Electrical and Communication Technologies, ISAECT 2018, Rabat Morocco, 21st November 2018.

- (v) ACM Distinguished Speaker Lecture titled "Software-Hardware Co-design for New Generation IoTs", City University of London, UK, June 5th 2018.
- (vi) Invited Lecture titled "Scheduling Tasks for Reconfigurable Architectures", Computer Laboratory, University of Cambridge, UK, 18th May 2018.
- (vii) ACM Distinguished Speaker Lecture titled "Computer Aided Design for Quantum Computing Circuits", 7th International Conference on Computers Communications and Control (ICCCC 2018), Oradea, Romania, 9th May 2018.
- (viii) ACM Distinguished Speaker Lecture titled "Software-Hardware Co-design for New Generation IoTs", Stefan cel Mare University Suceava, Romania, 2nd May 2018.
- (ix) Invited Lecture titled "Task Scheduling and Hardware Design in Reconfigurable Space", Iwate Prefectural University Japan, 30th January, 2017
- (x) Colloquium Lecture titled "Data Analytics for IoT", Kyushu Institute of Technology Japan, January 23rd, 2017.
- (xi) IEEE Tutorial talk titled "Real-Time Task Scheduling on FPGAs", Penang Malaysia, June 6, 2016.
- (xii) Invited lecture titled "Real Time Task Scheduling For Reconfigurable Hardware", at 3rd Test Symposium 2016 Symposium, Fukuoka, Japan, 1st March, 2016
- (xiii) Invited lecture titled "Multi Metric Preferential Algorithm for Partially Re-Configurable Targets", at DISC 2016 Symposium, Kyushu Institute of Technology, Japan, Feb 29th, 2016
- (xiv) Workshop lecture on System on Chip Design, NEPCON 2015, Penang Malaysia, June 9-10, 2015.
- (xv) A Tutorial Lecture On: Health Informatics Recent Trends and Upcoming Challenges, Lincoln University College, Malaysia, Nov 20th 2014.
- (xvi) Design Automation Tool for Quantum Computing Circuits, Bremen University, Feb 6th, 2014.

- (xviii) Multi/Many-Core Embedded System Design: Recent Trends and Challenges, University of Arad, Romania, June 1st 2013.
- (xix) Quantum Algorithm and Coding for the Binary Welded Tree Problem, University of California, Santa Barbara, April 26th, 2012.
- (xx) Data Fusion for Computer Vision and Related Applications, Princeton Knowledge Engineering Meetup, Princeton, USA, Dec 5, 2011.
- (xxi) Design considerations: Read-Out Board for MUCH, CBM /DAQ Workshop, Frankfurt Institute of Advanced Studies, Germany, November 30th 2010.
- (xxii) Workshop Lecture on “Advances In Electronic Design And Automation”, NEPCON 2008, Penang Malaysia, June 3, 2008.
- (xxiii) Workshop Lecture on “Computer for Future Devices”, NEPCON 2008, Penang Malaysia, June 3, 2008.
- (xxiv) Workshop Lecture on “Wireless Electronic Devices”, NEPCON 2008, Penang Malaysia, June 3, 2008.
- (xxv) Colloquium talk on “Rules for Quantum Circuit Synthesis”, Department of Computer Science, New York State University at Buffalo, October 4, 2007.

Invited Lectures in India (Selected):

- (i) Invited Lecture titled “Best Practices in Research Data Management”, Research Methodology Course, IEST Shibpur, 20th Feb. 2019.
- (ii) Invited Lecture titled “Machine Learning for Computer Aided Diagnosis”, Ashoka University, Sonapat, Haryana, 14th November 2018.
- (iii) ACM DSP Lecture titled “Software-Hardware Co-design for New Generation IoTs”, Kristu Jayanti College, Bangalore, 7th September, 2018.
- (iv) Keynote lecture titled “Scheduling Tasks for Reconfigurable Architectures”, International Conference On Electrical Sciences, SASTRA UNIVERSITY, 11th August, 2018.
- (v) Invited Lecture titled “Engineering for a Changing World: A Roadmap to the Future”, West Bengal State Science & Technology Congress, 2018, 5th March 2018.

- (vi) Tutorial lecture titled "Hardware Cryptocore: A Design Space Exploration", FDP at NIT Patna, 21st February, 2018
- (vii) Tutorial lecture titled "On- Chip Self Awareness to Facilitate Embedded Security at Runtime", National Institute of Technology, February 21st, 2018.
- (viii) Tutorial lecture titled "Fundamentals of Machine Learning", J.S.S. Academy of Technical Education, Noida, 13th Feb, 2018.
- (ix) Tutorial lecture titled "Hardware Cryptocore: A Design Space Exploration", National Institute of Technology, February 20th, 2018.
- (x) Tutorial lecture titled "Medical Image Processing: Analysis and Visualization", ICDMAI 2018 Tutorial Lecture, Pune, Jan 18th 2018.
- (xi) Tutorial lecture titled "Machine learning using R", MAMI 2017, C.V.Raman College of Engineering, Bhubaneswar, Odisha, 22nd December 2017.
- (xii) Tutorial lecture titled "Real-Time Scheduling in Reconfigurable Space", National Institute of Technology Durgapur, ISED 2017, 17th December 2017.
- (xiii) Tutorial lecture on "Task Scheduling and Hardware Design in Reconfigurable Platform", Haldia Institute of Technology, 2nd November, 2017.
- (xiv) Invited lecture titled "Accelerated Computing using FPGAs", Reva University Bangalore, 10th October 2017.
- (xv) Keynote lecture titled "Task Scheduling and Hardware Design in Reconfigurable Space", ICCDN 2017, Sikkim Manipal Institute of Technology, 4th June 2017.
- (xvi) Invited Lecture titled "Task Scheduling and Hardware Design in Reconfigurable Space", Dept. of CSE, IIT Kanpur, India, 19th August, 2016.
- (xvii) Tutorial Lecture Titled on "Quantum Circuit Synthesis Based on Physical Machine Descriptions", Workshop Lecture, NIT Meghalaya, March 19th 2015.

PROFESSIONAL ACTIVITIES:

- **Associate Editor** of Elsevier Journal of Computer and Electrical Engineering
- **Guest Editor** of Springer Nature Journal on Applied Sciences.
- **Reviewer** of IEEE Transactions on Computers.
- **Reviewer** of IEEE Transactions on VLSI Systems
- **Reviewer** of IEEE Transactions on Neural Networks and Learning Systems
- **Reviewer** of IEEE Access
- **Reviewer** of ACM TODAES.
- **Reviewer** of ACM JETC.
- **Reviewer** of Elsevier Journal of Parallel and Distributed Computing.
- **Reviewer of** Elsevier Journal of Medical Image Analysis.
- **Reviewer** of Elsevier Journal of Microprocessor and Microsystems.
- **Reviewer** of Springer Journal of Electronic Testing: Theory and Applications.
- **Reviewer** of Elsevier journal on Simulation Modeling Practice and Theory (SIMPAT).
- **Reviewer** of IET Computers & Digital Techniques.
- **Reviewer** of Inderscience Int. J. of Innovative Computing and Applications.
- **Reviewer** of Journal of The Institution of Engineers (India): Series B.