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## Curriculum Vitae

### Teaching and Research Experience: -

More than 27 years of teaching experience at the Bharathidasan University, the National Institute of Technology, Tiruchirappalli and Durgapur. About 18 years of research experience in Digital Image Processing, Computer Vision, and Biometrics. Visited and participated in collaborative research at the [University of Texas, Arlington, U.S.A.](#) under TEQIP–I project and published an IEEE conference paper. One-week Guest faculty at [Caledonian College of Engineering, Muscat, Oman](#), and two faculty members completed Ph.D. under joint-supervision. Participated in collaborative research with [CSIR-Central Electrochemical Research Institute, Tamilnadu, India](#) and a scholar completed Ph.D. under joint-supervision. Participated in collaborative research with [CSIR-Advanced Materials and Processes Research Institute, Bhopal, Madhya Pradesh, India](#) and a scholar completed Ph.D. under joint-supervision. Member of Information Security Education and Awareness (ISEA) Phase I & II project and TEQIP – I and II project. Granted 1 patent, filed 2 patents, 3 books and 4 book chapters, 115 research articles published / accepted (SCI/SCIE/ESCI/SCOPUS/WOS 67 nos.) in international peer-reviewed journals / conferences, (Google citations-1092, h-index-16, i10-index-28, Total Impact factor > 40.733). One of our research articles has been first in the top 20 articles, during 2013-16. Developed M.Tech. programme on High Performance Computing and Ph.D. programme on Computer Science admitted two batches from the academic year 2014-15 in Computer Centre, NIT Durgapur. Received 80% positive feedback from students. Six research scholars awarded Ph.D. degree in the year 2013, 2015, 2017, 2018, 2021, and 4 research scholars working on Ph.D. 20 M.Tech., 11 M.C.A. 18 B.Tech., 20 B.Tech. internship projects supervised, 5 B.Tech. students and 2 M.Tech. scholars working on projects. Organized several conferences, seminars, and workshops. Reviewer in IEEE, Springer, Elsevier, Taylor & Francis, acm, etc. Board member in several peer-reviewed international journals. Nominated as a Board Member for Ph.D. viva voce and as an Indian examiner for several Ph.D. theses in various universities. Visited several countries for presenting research articles in various international conferences. Participating in social activities in rural areas near Durgapur, West Bengal.



## Honours and Awards:

1. **Best paper** awarded for article entitled *Classification of Buildings and Vehicles in Google Map Satellite Images using Random Forest Classifier*, Springer International Conference on Electronic Systems and Intelligent Computing, March 02-04, 2020 at NIT Arunachal Pradesh, India. <https://esic2020.in/>
2. **Best paper** awarded for article entitled *Convolutional Neural Network with Fourier Transform for Road Classification from Satellite Images*, 2018 International Conference on Computational Vision and Bio Inspired Computing (ICCVBIC), Springer, Coimbatore, 29-30, Nov. 2018, pp. 354-359. <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8597408>
3. **Guest of Honour**, National Conference on Advances in Computer Science and Information Technology, 14-10-2015, Guru Shree Shantivijai Jain College for Women, Chennai – 600 007.
4. **Best paper** awarded for research article entitled “*Enhancement of Palmprint using Median Filter for Biometrics Application*”, in the International Conference on Advance in Science and Technology (ICAST 2014), Pattaya, Thailand, 15<sup>th</sup> February 2014.
5. **Award** of Achievement in acm International Programming Collegiate Contest cosponsored by IBM, IIT Kanpur, December 15-16, 2008.
6. **Awarded Second prize** for proficiency in Computer Science in P.G.D.C.A. 16-03-1995.

## Editorial Board Member

1. Member of ‘Chief Advisory Board’ for IJSCE (International Journal of Soft Computing and Engineering) (2010-2017). <https://www.ijsce.org/editorial-board/>
2. Advisory Chair, International Journal of Emerging Science and Engineering (TM), (2012-2017) <https://www.ijese.org/editorial-board/>
3. Member of Editorial Board for *International Journal of Computer Science and Engineering and Technology*, 2010 <http://ijcst.com/editorial-board/>
4. Member of Editorial Board for *International Journal of Computer Science Engineering and Technology*, <http://ijcset.net/eb.php>
5. Member of Editorial Board for *International Journal of Electronics & Communication Technology*, <http://www.iject.org/editorial-board/>
6. Member of Editorial Board for Cosmic Journals Group, India, <http://www.cosmicjournalsgroup.com/board/#1454566977969-9421e964-9b54>
7. Member of Editorial Board for *International Journal of Image Processing*, 2009-2015
8. Member of Editorial Board for *Journal of Computing*, 2009-2015
9. Advisory Chair, Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.
10. Editorial Member, IJPAER

## Reviewer

1. Reviewer in *Journal on Computing and Cultural Heritage*, acm
2. Reviewer in *IEEE Access*
3. Reviewer in *IEEE Transactions on Circuits and Systems for Video Technology*
4. Reviewer in *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization*, Taylor & Francis
5. Reviewer in *Journal of Medical Systems*, Springer.
6. Reviewer in *Journal of Visual Communication and Image Representation*, Elsevier.
7. Reviewer in *Pattern Recognition*, Elsevier
8. Reviewer in acm – *Transactions on Asian and Low Resource Language Information Processing*
9. Reviewer in *CAAI Transactions on Intelligence Technology*
10. Reviewer in *IET Image Processing*,
11. Reviewer in *Informatica*, Vilnius University Institute of Data Science and Digital Technologies, Lithuania
12. Reviewer in *Global Association of Research*, USA.
13. Reviewer in *International Journal of Mathematics and Engineering with Computers*.
14. Reviewer in *Inderscience Journals of IJTMCP, IJICT, IJKEDM, IJBIS*.
15. Reviewer in *Indian Journal Science and Technology*.

## Invited Lectures and Chairmanships

1. **Special Talk on Information Security**, IEEE SMC Society, IEE, Sai Ram Engineering College, Chennai, 28-03-2023.
2. **Expert Lecture, Introduction to Computer Vision and its Applications**, Two-week hybrid Faculty Development Program (FDP) on “Computer Vision and Image Processing using Deep Learning: Research Issues and Applications, 19-12-2022 to 30-12-2022, National Institute of Technology Sikkim.
3. **Expert talk** in AICTE FDP on “*Cloud based Reversible Dynamic Secure Steganography Model for Embedding Pathological Report in Medical Images*” on 09/04/2022 organized by Department of ECE, NIT Silchar.
4. **Expert talk** in AICTE FDP on “*Research Avenues in Machine Learning and AI for societal issues*” organized by Department of CSE and ECE, NIT Silchar, 15/03/2022.
5. **Plenary talk** on “*Artificial Intelligence in Security Systems*” in National conference at ECE department of Dr. Mahalingam College of Engineering and Technology, Pollachi, 23 April 2021.
6. **Session Chair**, 7th International Conference on Mathematics and Computing, ICMC 2021, Department of Information Technology, Indian Institute of Engineering Science and Technology, Shibpur, India, 2-5 March 2021.
7. **Keynote Speaker, Cyber Security Threats**, One Week Online FDP “Data Analytics on Real Time System”, sponsored by AKTU to be hosted by GITM, Lucknow from 26<sup>th</sup> to 30<sup>th</sup> December, 2020.
8. **Guest Speaker on Computer Vision based Biometric System**, AICTE sponsored STTP on Implementation of Medical Image Processing using Advanced Green Computing Technology from 14<sup>th</sup> to 19<sup>th</sup> Dec 2020.
9. **Guest Speaker on Computer Vision based Biometric System**, AICTE sponsored STTP on Implementation of Medical Image Processing using Advanced Green Computing Technology from 2<sup>nd</sup> to 7<sup>th</sup> Nov 2020.
10. **Expert Talk, Hypertext Markup Language (HTML) development tools**, AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on “Role of Artificial Intelligence in Science and Engineering Applications (RAISEA-2020)” 26 – 30 October 2020 for CBSE School Teachers Organized by National Institute of Technology Silchar.
11. **Guest Lecture on Information Security**, Air Force Station Arjan Singh, Panagarh, West Bengal, 22-11-2019.
12. **Session Chair, 11th International Conference on Neural Computation Theory and Applications (NCTA)**, Vienna, Austria, 17-19, September 2019.
13. **Keynote Speech and Session Chair on “Latest Research Trends in Biometrics”**, International Conference on Emerging Trends in Engineering Science & Technology, ICETEST 2018, Government Engineering College, Trichur, Kerala, 19, January 2018.
14. **Special Lecture on Image Recognition**, Government Engineering College, Trichur, Kerala, 10-11, November 2016.
15. **Key Note Speech**, International Conference on Engineering and Technology, Computer, Basic & Applied Sciences, ECBA-2016, Academic Fora, Sydney, Australia, August 3-4, 2016.
16. **Guest faculty** at Caledonian College of Engineering, Muscat, Oman from 05 to 10-12-2015.
17. **Invited as a Judge** for National Level Congress under ISTE Chapter, Durgapur for the year 2012-2016 to evaluate research articles of Technical Session II.
18. **Invited talk** on “Color Image to Greyscale Image Conversion” in National Conference on Advanced Computing, at the Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India, on 08-02-2011.
19. **Session Chair**, Second International Conference on Computer Engineering and Applications, Bali, Indonesia, 19-21, March 2010.

## Membership

1. **Senior Member** in I.E.E.E., No.90339544, 2009, Senior Member from 2-3-2017.
2. **Senior Member** in International Association of Computer Science and Information Technology (IACSIT), Singapore, No.80334084
3. **Senior Member** in Institute of Research Engineers and Doctors, California, USA.
4. **Professional member** in A.C.M., from 2009.

5. **Life member** in *Computer Society of India (C.S.I.)*, No.37185, from 15-06-1998.
6. **Life member** in *Indian Society for Technical Education (I.S.T.E.)*, No.40666, 2004.
7. **Member** in *International Association of Engineers (IAENG)*, Hong Kong, No. 109167, from 27-09-2010.
8. **Member** of Science Publications, Member ID SP-2013-1138, Thailand.
9. **Member** of Vijnana Bharati, from 09-05-2016.
10. **Regular Member** of *Institute for Systems and Technologies of Information, Control, and Communication, INSTICC #17032, since July 1, 2019.*

### Workshop / Training / Programs Attended

1. TEQIP-II Sponsored Faculty Development Program on Pedagogy, NIT Durgapur, March 24-25, 2017.
2. TEQIP-II sponsored One day Symposium on “Machine Learning and its Applications” on 22<sup>nd</sup> March, 2017, NIT Durgapur.
3. Workshop on Algorithms, 08-10 August 2008, NIT, Tiruchirappalli.
4. MIDLET Technologies for Mobile and Interactive Devices, 26-30 December 2007, NIT Tiruchirappalli.
5. Short Term Course under Quality Improvement Programme on Information Technology in Healthcare, 17-21 December 2007, IIT Delhi.
6. Digital Image Processing and Applications in VLSI, 6-7 December 2007, NIT, Durgapur.
7. International Workshop on Numerical Linear Algebra in Signals, Systems, and Control, 09-11 January 2007, IIT Kharagpur.
8. Training on "LATEX", 27-28 October 2006, NIT, Tiruchirappalli.
9. IEEE-Three-day Workshop on Randomized Algorithms, 8-10 September, 2000, NIT, Tiruchirappalli.

### Seminar / Workshop / Conference Organized

1. **National Conference on Modern Trends of Operating Systems (MTOS-2009)**, 28-29 March 2009, Konark Institute of Science and Technology, Bhubaneswar, India.
2. **Seminar on Application of MATLAB Tools in Engineering Education**, 19-06-2012, D.M. Sen Hall, NIT Durgapur, organized by Computer Centre, NIT Durgapur.
3. **MHRD sponsored One Day Workshop on NMEICT Awareness**, 09-05-2013, Peerless Sarovar, Durgapur, organized by ITIC, NIT Durgapur.
4. **Energy System Modeling and Optimization Conference (ESMOC 2013)**, Local Organizing Committee, 9-11, December, 2013, NIT Durgapur.
5. **IEEE International Conference on Soft-computing and Network Security, in association with “KYUNGPOOK NATIONAL UNIVERSITY”, South Korea**, National Advisory Committee, Coimbatore, Tamilnadu, India, 25-27, February 2015.
6. **International Conference on Computing and Intelligence System ICCIS 2015**, Technical Advisory Committee, 19-21, March 2015, Chennai, India,
7. **IEEE 2<sup>nd</sup> International Conference on Applied and Theoretical Computing and Communication Technology**, Technical Program Committee, 21-23 July 2016, SJB Institute of Technology, Bengaluru, India.
8. **IEEE 2<sup>nd</sup> International Conference on Advances in Computing, Communication & Automation (FALL)**, Technical Program Committee, 30<sup>th</sup> September to 1<sup>st</sup> October 2016, MJP Rohilkhand University, Bareilly, India.
9. **National Conference on Innovations in Computing and Information Technology**, Advisory Committee, Thanjavur, Tamilnadu, 27<sup>th</sup> December 2016.
10. **ISEA-II Sponsored Workshop on Digital Forensics from Theory to Practice**, 9-13, January 2017, NIT Durgapur and C-DAC Kolkata, Committee.
11. **IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy, and Materials, ICSTM-2017**, 2-4, August 2017, Veltech University, Chennai, India. Member of National Technical Programme Committee.
12. **ISEA-II Sponsored One Week Short Term Course on BIOMETRICS**, 07-11, August 2017, Organising Secretary, National Institute of Technology, Durgapur, West Bengal, India.
13. **International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques, ICEECCOT-2017**, 15-16 December 2017, GSSS Inst of Engg & Tech. Mysuru, Technical Programme Committee.
14. **International Conference on Cutting Edge Technologies in Computing and Communications (ICCETCC-2018)**, 10-11, January 2018, Advisory Committee, Sairam Engineering College, Chennai.
15. **IEEE International Conference on Soft-computing and Network Security (ICSNS-2018), in association with “KYUNGPOOK NATIONAL UNIVERSITY”, South Korea**, National Advisory Committee, Coimbatore, Tamilnadu, India, 14-16, February 2018.
16. **IEEE International Conference on Soft-computing and Network Security**, NIT Durgapur, Member of Technical Advisory Committee, 14-16, February 2018.

17. **International Conference on Intelligent Systems and Wireless Technologies (ICISWT 2018)**, Dayananda Sagar University, Bangalore, 28 - 30 June 2018, Member of Technical Programme Committee.
18. **International Conference on Next Gen Information Systems and Technologies**, 19-20, July 2018, NSS College of Engineering, Palakkad, Kerala, Member of Technical Committee.
19. **International Conference on Advanced Research in Power Electronics and Energy Engineering, ICARPEEE 2018, July 20-21, 2018**, CIET, Guntur, India, Member of Advisory Committee.
20. **4th International Conference of Networks, Communications, Wireless and Mobile Computing (NCWC 2018)**, August 25~26, 2018, Dubai, UAE, Member of Program Committee.
21. **International Conference on Emerging Technology in Modelling and Graphics, (IEMGraph 2018)**, Institute of Engineering and Management, Kolkata, 6-7 September 2018, Member of Technical Programme Committee.
22. **4th International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT - 2018)**, 6-8, September 2018, AIET, Mangalore, Karnataka, Member of Technical Programme Committee.
23. **International Conference on Computational Techniques, Electronics and Mechanical Systems-CTEMS'18**, K.L.S. Gogte Institute of Technology, Belagavi, Karnataka, 4-6, October 2018, Member of Technical Programme Committee.
24. **IEEE Third International Conference on contemporary computing and informatics IC<sup>3</sup>I 2018** Amity University, Delhi, 10-12, October 2018, Member of Steering Committee.
25. **Second International Conference on Big Data Analytics and Computational Intelligence**, 24-27 October 2018, St. Joseph's College of Engineering, Chennai, Member of Technical Programme Committee.
26. **IEEE Third International Conference on Electronics, Communication, Computer Technologies and Optimization Techniques (ICECCOT-2018)**, 14 - 15 December 2018, GSSSIETW, Mysuru, Member of Technical Programme Committee.
27. **IEEE International Conference on Circuits and Systems in Digital Enterprise Technology (ICCSDET 2018)**, 21-22, December 2018, SAINTGITS College of Engineering, Kottayam, Kerala, Member of Technical Programme Committee.
28. **Intelligent Computing and Communication for Smart World**, Kongu Engineering College, 14-15, December 2018, Member of Technical Committee.
29. **First International Conference on Advanced Technologies in Intelligent Control, Environment, Computing and Communication Engineering (ICATIECE-2019)** 19th - 20th March, 2019, National Advisory Committee.
30. **2019 International Conference on Software Engineering and Computational Intelligence (CSECI 2019)**, Rome, Italy July 29-31, 2019, Technical Committee.
31. **2nd International Conference on Big Data Analytics and Computational Intelligence**, 24 - 26 October 2019, St. Joseph's College of Engineering, Chennai, India, Member.
32. **IEEE Fourth International Conference on Electronics, Communication, Computer Technologies and Optimization Techniques (ICECCOT-2019)**, 13 - 14 December 2019, GSSSIETW, Mysuru, Member of Technical Programme Committee.
33. **Member of Advisory Board**, 4th International Conference on Computational Intelligence & Informatics (ICCI-2020) Organized by Department of Computer Science and Engineering JNTUH College of Engineering Hyderabad, India, 14-15 February 2020.
34. **Member of Technical Advisory Board / Reviewer**, ICEEE-2020: 3rd International Conference on Engineering, Education and Entrepreneurship, New Delhi, India, May 24, 2020
35. **Member of Scientific and Academic Committee** of 6th Brazilian Technology Symposium'20 26-28, Oct 2020, at the Pontificia Universidade Católica de Campinas (PUC-Campinas), Campinas/SP, Brazil.
36. **Member of Scientific and Academic Committee** of BTSym'20 Satellite Perú event, , at the "Universidad Peruana de Ciencias Aplicadas", Peru, 9-11, Dec 2020.
37. **Member of Technical Programme Committee**, 2nd International Conference (Virtual Mode) on Machine Learning, Advances in Computing, Renewable Energy and Communication (MARC2020) Krishna Engineering College, Ghaziabad, India, December 17-18, 2020.
38. **Member of Scientific and Advisory / Review Committee** International Conference on Sustainable Advanced Computing (ICSAC 2021), Christ (Deemed to be University), Bangalore, 5-6 March, 2021.
39. **Member of Advisory Committee**, ICCSP (International Conference on Computer, Communication, and Signal Processing) 2021, SSN College of Engineering, Chennai, 24-25, May, 2021.
40. **Member of Technical Programme Committee**, 6th International Conference on Computer, Communication and Signal Processing 2022 (ICCCSP'22), SSN College of Engineering, Chennai, 24-25, February 2022.
41. **Member of Advisory Committee**, International Conference on Emerging Trends in IoT and Computing Technologies (ICEICT-2022), Goel Institute of Technology & Management Lucknow, Near Sharda Canal, Ayodhya Road, Lucknow-226028 (U.P.) 22-23 April 2022.
42. **Member of Advisory Board**, International Conference on Artificial Intelligence and Knowledge Processing (AIKP'22), Woxsen University, Hyderabad, 22nd & 23rd July 2022.
43. **Member of Technical Programme Committee**, IEEE Third International Conference on Intelligent Computing, Instrumentation, and Control Technologies ICICICT, Vimal Jyothi Engineering College, Kerala, 11-12 Aug 2022.

44. **Member of Technical Committee**, ICMCE 2022 International Conference on Material Science and Computational Engineering Kollam on the 17-18 November 2022
45. **Member of Technical Programme Committee**, 9th "IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON-2022)", IIIT Allahabad, India, 2-4 December 2022.
46. **Member of Technical Programme Committee**, First International Conference on Computational Intelligence Paradigms (CLIP) Department of CSE National Institute of Technology, Tiruchirappalli, 7-9 December, 2022.
47. **Member of Technical Programme Committee**, 9th International Conference on Mathematics and Computing ICMC 2023, Department of Mathematics of BITS Pilani Goa, 6-8, January 2023.
48. **Member of Technical Programme Committee**, 2<sup>nd</sup> International conference on "Smart Technologies for Smart Nations (SmartTechCon 2023), Amity Global Institute, 101 Penang Road, Singapore, 24-25 March 2023.
49. **Member of National Advisory Board**, Artificial Intelligence & Knowledge Processing 2023, Woxsen University, Hyderabad, 6-8, October 2023.
50. **Member of Technical Programme Committee**, 10th "IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON-2023)", IIIT Allahabad, India, 1-3 December 2023.
51. **Member of Programme Committee**, [IEEE – iSES](#) 18 – 20 Dec 2023, Ahmedabad.

## Employment History

Employer	Post	Pay Scale	Period of Employment	
			From	To
National Institute of Technology, Durgapur.	Associate Professor	Pay Level 13A2, Basic ₹1,52,500, Gross 1,85,769 (as on January 2019) 6 <sup>th</sup> pay ₹37,400-67,000/9500 (as on 31-12-2018)	09-03-2018	Till date (5.2 years as on 19-05-2023)
National Institute of Technology, Durgapur.	Associate Professor	Pay Level 13A1, Basic ₹1,47,900, Gross 1,85,769 (as on March 2018) 6 <sup>th</sup> pay ₹37,400-67,000/9000 (as on 31-12-2018)	04-06-2010	08-03-2018 (7.9 years)
National Institute of Technology, Durgapur.	Assistant Professor, Head of Computer Centre (16-08-2007 to 29-07-2013, 27-07-2015 to 09-08-2016)	5 <sup>th</sup> pay ₹15600-39100/8000 (Basic 43,170/- Gross ₹1,12,500/-)	04-06-2007	03-06-2010 (3 years)
National Institute of Technology, Tiruchirappalli.	Computer Programmer	₹8000-275-13500, basic 9925, Gross ₹22,852 as on 31-05-2007	21-01-2000	31-05-2007 (7.5 years)
Bharathidasan University, Tiruchirappalli.	Programming Assistant	₹5500-175-9000 (pay as on 21-01-2000 ₹6,200)	30-01-1996	21-01-2000 (3.11 years)

## Educational Details

Degree	Discipline	University / Board	Year	Percentage / Grade	Remarks if any (Rank, Hons, etc.)
Ph.D.	Computer Applications	National Institute of Technology, Tiruchirappalli, India	22-08-2009	8.25 CGPA in course work	Thesis Title: Analysis and Modelling of Grey-Scale Image Compression (viva 02-03-2009)
M.Phil.	Computer Science	Bharathidasan University, Tiruchirappalli, India	2003-27-10-04	77%	Thesis Title: Digital Image Compression by HAAR Wavelet Transform
M.Sc.	Computer Science	Bharathidasan University	1996-12-12	67.3%	Thesis: Materials Requirement Planning
P.G.D.C.A.	Computer Applications	Bharathidasan University	1994-16-12	62.8%	Second price for proficiency in Computer Science
Bachelors B.Sc.	Chemistry	Bharathidasan University, Tiruchirappalli, India	1993, 24-02-94	59.8%	

Higher Secondary (12)	Computer Science	Government of Tamilnadu, India	1990	57.8%	
Secondary School (10)	Common Subjects	Government of Tamilnadu, India	1988	66.6%	

**TOTAL PUBLICATIONS – 124, Cumulative Impact Factor > 40.733, SCI-8, SCIE-2, ESCI-6, SCOPUS–60, WOS-32**

**Citations from Google Scholar: All 1092, h-index-16, i10-index-28**

### Patent Granted – 1

1.1 “*Process for the Preparation of Polyhydroxyalkenoate and use thereof in Enhancing Microbial Electrolysis*”, Navanietha Krishnaraj R., Pal Parimal, Chandran Saravanan, **Granted Patent Number: 299953, application no. 46/KOL/2014, filed on 10-01-2014, publication date (U/S 11A) 07-02-2014, Intellectual Property India, Granted date 14-08-2018, Post Grant Journal Date: 17-08-2018** <http://ipindiaservices.gov.in/publicsearch/>

### E-Books - 3

- 3.1 Saravanan Chandran, “*Quality of Digital Image and Metrics*”, First Edition, January 28<sup>th</sup>, 2014, Lulu Press Inc., USA / Canada, ISBN 978-1-304-84848-2.  
<http://www.lulu.com/shop/saravanan-chandran/quality-of-digital-image-and-metrics/ebook/product-21420510.html>
- 4.2 Saravanan Chandran, “*Colour Conversion*”, 2014, USA Lulu Press Inc / Canada, ISBN 978-1-304-85430-8.  
<http://www.lulu.com/shop/saravanan-chandran/colour-conversion/ebook/product-21423553.html>
- 5.3 Saravanan Chandran, “*Statistical Coding for Image Compression*”, First Edition, December 12<sup>th</sup>, 2013, Lulu Press Inc., USA / Canada, ISBN: 978-1-304-70830-4.  
<http://www.lulu.com/shop/saravanan-chandran/statistical-coding-for-image-compression/ebook/product-21349317.html>

### Book Chapters – 4, SCOPUS - 1

- 6.1 Saravanan Chandran, Chapter – 7, *Medical Data Storage and Compression*, Medical Image Processing for Improved Clinical Diagnosis, pp. 140-154, IGI Global, USA, August, 2018, ISBN13: 9781522558767 ISBN10: 1522558764 EISBN13: 9781522558774 DOI: 10.4018/978-1-5225-5876-7 <https://www.igi-global.com/book/medical-image-processing-improved-clinical/193279>
- 7.2 Satanand Mishra, C Saravanan, VK Dwivedi, JP Shukla, [Rainfall prediction using hydrological time series data mining](#), Technologies for Sustainable Rural Development: Having Potential of Socio-Economic Upliftment (TSRD–2014), Allied Publishers, India, Vol. 1, pp.403-408, 2014, ISBN 978-81-8424-862-3, [https://books.google.co.in/books/about/Technologies\\_for\\_Sustainable\\_Rural\\_Devel.html?id=pZayCQAAQBAJ&redir\\_esc=y](https://books.google.co.in/books/about/Technologies_for_Sustainable_Rural_Devel.html?id=pZayCQAAQBAJ&redir_esc=y)
- 8.3 R. Ponalagusamy and C. Saravanan, “*Analysis of Medical Image Compression using Statistical Coding Methods*”, Innovative Applications of Information Technology for the Developing World, Imperial College Press, UK, Vol. 2, pp. 372-376, July 2007, ISSN: 1793-2416, ISBN: 978-1-86094-827-5, **SCOPUS**, <http://www.worldscientific.com/worldscibooks/10.1142/p514#t=oc>
- 9.4 C. Saravanan and R. Ponalagusamy, “*Analysis of Image Compression using Arithmetic Coding*”, NCRTCM, Gandhigram, Tamilnadu, India, Computational Mathematics, Narosa Publishers, India, pp.132-136, 2005, ISBN 81-7319-619-2.

### Indexed Journal Publications – 27, SCI-8, SCIE-3, ESCI-6, SCOPUS -18, WOS-13

- 10.1 Sunil Kumar Patel, Chandran Saravanan, Secure Digital Academic Certificate Verification System using Blockchain, accepted in International Journal of Information and Computer Security, 05/2023. DOI: 10.1504/IJICS.2023.10058109 <https://www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijics>
- 11.2 Kshitiza Vasudeva, Saravanan Chandran, SCL-FExR: supervised contrastive learning approach for facial expression Recognition, Multimedia Tools and Applications, Springer, 82, 31351–31371, 2/3/2023, IP- 2.577 <https://link.springer.com/article/10.1007/s11042-023-14803-5> **SCIE-SCOPUS**
- 12.3 Raj Kumar Paul, Saravanan Chandran, A Health Care Image Compression Scheme using Discrete Wavelet Transform and Convolution Neural Network, Journal of Engineering Research, ICMET Special Issue, pp. 1-15, 06-04-2022, ISSN: 2307-1885, **SCIE-SCOPUS**, <https://kuwaitjournals.org/jer/index.php/JER/article/view/17163>
- 13.4 Thafseela Koya Poolakkachalil, Saravanan Chandran, *Summative Stereoscopic Image Compression using Arithmetic Coding*, Indonesian Journal of Electrical Engineering and Informatics (IJEEI), Vol. 7, No. 3, pp. 564-

- 14.5 Sunil Kumar Patel, Chandran Saravanan and Vikash Kumar Patel, *Cloud based Reversible Dynamic Secure Steganography Model for Embedding Pathological Report in Medical Images*, International Journal of Computers and Applications (TJCA), Taylor and Francis, pp.1-9, July 2019, SCImago, SCOPUS Print ISSN: 1206-212X Online ISSN: 1925-7074, H-Index 12 <https://www.tandfonline.com/doi/full/10.1080/1206212X.2019.1641273>
- 15.6 Thafseela Koya Poolakkachalil, Saravanan Chandran, *Stereoscopic Image Compression using Curvelet*, Journal of Theoretical and Applied Information Technology, Vol. 97, No.4, pp. 1146-1154, 28 Feb. 2019 E-ISSN 1817-3195 / ISSN 1992-8645. SCOPUS. <http://www.jatit.org/volumes/Vol97No4/7Vol97No4.pdf> H Index 9
- 16.7 Saravanan Chandran, Satya Bhushan Verma, “*Contactless Palmprint Verification System using 2-D Gabor Filter and Principal Component Analysis*”, International Arab Journal of Information Technology (IAJIT), Vol. 16, No. 1, pp-1-7, January 2019, Impact Factor 0.742, ISSN: 1683-3198 (print), ISSN: 2309-4524 (Online), <https://iajit.org/PDF/January%202019,%20No.%201/11209.pdf> (SCI-SCOPUS-WOS) H Index 19
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- 83.47Shefali Mamataj, Biswajit Das, Saravanan C., “*An Approach for Designing an Optimized Reversible Parallel Multiplier by Reversible Gates*”, ICCACCS, **SCOPUS-WOS**, Kolkata, Springer, 30-10-2014 to 01-11-2014, ISSN: 1876-1100, ISSN – 1876-1100, Springer. [https://link.springer.com/chapter/10.1007/978-81-322-2274-3\\_38](https://link.springer.com/chapter/10.1007/978-81-322-2274-3_38)
- 84.48Shefali Mamataj, Biswajit Das, Saravanan C., “*An Approach for Designing of Sequence Generator by Counter and Multiplexer of Reversible Gates*”, IC<sup>3</sup>I-IEEE, **SCOPUS-WOS**, 27-29, Nov. 2014, Mysuru, India, ISBN: 978-1-4799-66295. <http://www.ieeeexplore.ws/document/7019602/>
- 85.49Jayavrinda Vrindavanam, Saravanan Chandran, and Gautam K. Mahanti, “*Wavelet and JPEG based Image Compression: An Experimental Analysis*”, International Conference & Workshop on Emerging Trends in Technology, TCET, Mumbai, India, 24-25, February 2012, pp.36-42, ISBN: 978-93-80747-70-1 <http://www.ijcaonline.org/proceedings/icwet/number7/5364-1055> **INT-REN**
- 86.50Jayavrinda Vrindavanam, Saravanan Chandran, and Gautam K. Mahanti, “*A Survey of Image Compression Methods*”, International Conference & Workshop on Emerging Trends in Technology, TCET, Mumbai, India, 24&25, Feb. 2012, pp.12-17. **INT-REN** ISBN: 973-93-80864-47-3, <http://www.ijcaonline.org/proceedings/icwet2012/number1/5313-1004>
- 87.51C. Saravanan, “*Classification of Diabetic Retinopathy Images using Statistical Algorithm*”, 15<sup>th</sup> International Symposium on Health Information Management Research, Zurich, Switzerland, 8-9<sup>th</sup> September, 2011, pp.108-113, **INT-REN** ISBN 978-0-9559283-1-4. <https://www.alexandria.unisg.ch/214542/>
- 88.52 C. Saravanan, Piyush Gupta, and Pratima Sharma, “*Grey Scale Image Colorization Using Artificial Neural Network*”, WorldComp 2010 - The 2010 World Congress in Computer Science, Computer Engineering, and Applied Computing, Las Vegas, Nevada, USA, **SCOPUS** 12-15, July 2010, pp.437-440. <https://dblp.uni-trier.de/db/conf/ipcv/ipcv2010.html>
- 89.53C. Saravanan, “*Color Image to Grayscale Image Conversion*”, IEEE International Conference on Telecom Technology and Applications, **SCOPUS-WOS**, Indonesia, Mar 19-21,2010, pp.196-199,ISBN-13:978-0-7695-3982-9,<http://dl.acm.org/citation.cfm?id=1798302>  
<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5445596>
- 90.54C. Saravanan, Sanjeev S Malalur, and Micahel T. Manry, “*Fingerprint Feature Compression Using Statistical Coding Techniques*”, IEEE, Indicon, India, **SCOPUS-WOS**, December 18-20, 2009, pp 1-4, **E-ISBN : 978-1-4244-4859-3, Print ISBN: 978-1-4244-4858-6**  
<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5409438>

## Refereed Journal Publications - 26

- 91.1Biswajit Das and Saravanan Chandran, **Towards the Designing of Efficient Computing Reversible Fault Tolerant Arithmetic Circuits and ALU**, European Journal of Scientific Research, Vol. 150, No. 2, pp. 126-151, Sep. 2018, Impact factor 0.736, ISSN 1450-216X / 1450-202X, [http://www.europeanjournalofscientificresearch.com/issues/EJSR\\_150\\_2.html](http://www.europeanjournalofscientificresearch.com/issues/EJSR_150_2.html) **HIndex 37**
- 92.2Ajay James, Raveena P V, Chandran Saravanan, **Handwritten Malayalam Character Recognition using Regional Zone with Structural Features**, International Journal of Engineering & Technology (UAE), Vol. 7, No.4, pp. 4629-4635, 2018, ISSN: 4629-4636, <https://www.sciencepubco.com/index.php/ijet/article/view/12551/13934> (paid)
- 93.3Ajay James, Sonu Varghese K, Chandran Saravanan, **Hybrid Approach of Handwritten Malayalam Character Recognition using Geometrical and Structural Features**, International Journal of Engineering and Technology (UAE), Vol. 7, No. 4, pp. 4624-4628, 2018. <https://www.sciencepubco.com/index.php/ijet/article/view/11944/14090>
- 94.4Satya Bhushan Verma, Saravanan Chandran, **Comparative Study of FAST, MSER, and Harris for Palmprint Verification System**, International Journal of Scientific & Engineering Research, Volume 7, Issue 12, pp. 855-858,

- December-2016. (ISSN 2229-5518), <http://www.ijser.org/onlineResearchPaperViewer.aspx?Comparative-Study-of-FAST-MSER-and-Harris-for-Palmprint-Verification-System.pdf> Impact Factor 3.8 (paid)
- 95.5 Shefali Mamataj, Saravanan Chandran, Biswajit Das, “**Implementation of Sequence Generator by the Sequential Elements (D-Flip Flop) of Reversible Gates**”, International Journal of Computer Applications, Vol. 141, No.1, pp.33-37, May 2016, (ISSN 0975 – 8887, ISBN : 973-93-80893-03-7, DOI 10.5120/ijca2016909429), Impact Factor 0.752, <http://www.ijcaonline.org/archives/volume141/number1/mamataj-2016-ijca-909429.pdf> (paid journal)
- 96.6 Chandran Saravanan, Ramesh Kumar Thakur, “**A Novel Steganography Technique for Securing User’s Digitized Handwritten Signature for Public Authentication Systems**”, Discovery, 2015, 43(200), 193-197, ISSN 2278 – 5469, [http://discoveryjournals.com/discovery/current\\_issue/v43/n200/A4.pdf](http://discoveryjournals.com/discovery/current_issue/v43/n200/A4.pdf) (paid)
- 97.7 Saravanan Chandran, Satya Bhushan Verma, “**Touchless Palmprint Verification using Shock Filter, SIFT, I-RANSAC, and LPD**”, IOSR Journal of Computer Engineering, Vol.17, Iss.3, pp.1-8, 2015. e-ISSN: 2278-0661, p-ISSN: 2278-8727 <http://www.iosrjournals.org/iosr-jce/papers/Vol17-issue3/Version-3/A017330108.pdf> (paid)
- 98.8 S. Mishra, C. Saravanan, V. K. Dwivedi, “**Study of Time Series Data Mining for the Real Time Hydrological Forecasting: A Review**”, International Journal of Computer Applications, (0975–8887) Vol.117, No. 23, pp.6-17, 2015. Impact Factor 0.752. <http://research.ijcaonline.org/volume117/number23/pxc3903581.pdf> (paid journal)
- 99.9 Saravanan Chandran, “**Performance Analysis of Edge Detectors for Palmprint Matching**”, International Journal of Advances in Image Processing Techniques– IJIPT, Volume 1: Issue 4, pp.1-3, 27 December, 2014, [ISSN 2372 – 3998]. \* <http://seekdl.org/nm.php?id=5066> (paid)
- 100.10 Shefali Mamataj, Biswajit Das, Saravanan Chandran, “**An Approach to Design Different Weighted Code Synchronous Counters by the Sequential Circuit Elements of Reversible Gates**”, International Journal of Computer Applications, (ISSN0975–8887), MICRO(2), pp.9-16, Oct. 2014, Impact Factor 0.752, <http://research.ijcaonline.org/micro/number2/MICRO1813.pdf> (paid journal)
- 101.11 Saravanan Chandran, “**Novel Algorithm for Converting 2D Image to Stereoscopic Image with Depth Control using Image Fusion**”, Lecture Notes on Information Theory, Volume 2, No.1, pp. 68-71, March 2014. ISSN: 2301-3788. API-5. <http://www.init.org/index.php?m=content&c=index&a=show&catid=35&id=65> (paid) Paris, France Conf.
- 102.12 Saravanan Chandran, “**Enhancement of Palmprint using Median Filter for Biometrics Application**”, International Journal of Advances in Science and Technology, Science Publications, pp. 15-16, February 2014, Pattaya, Thailand Conference, Impact Factor 1.016, ISSN 2348-5426. (paid)
- 103.13 Satanand Mishra, C. Saravanan, V. K. Dwivedi, and K. K. Pathak, “**Discovering Flood Recession Pattern in Hydrological Time Series Data Mining during the Post Monsoon Period**”, International Journal of Computer Applications, USA. Vol. 90, No.8, pp.35-44, 2014. Impact Factor 0.752, ISSN 0975 – 8887, API-1. <http://research.ijcaonline.org/volume90/number8/pxc3894375.pdf> (paid journal)
- 104.14 S. Mishra, V. K. Dwivedi, C. Saravanan, and K.K. Pathak, “**Pattern Discovery in Hydrological Time Series Data Mining during the Monsoon Period of the High Flood Years in Brahmaputra River Basin**”, International Journal of Computer Applications, USA, 67(6):7-14. Apr. 2013. ISBN:973-93-80874-06-7. Impact Factor 0.752, ISSN 0975 – 8887, API-1. <http://research.ijcaonline.org/volume67/number6/pxc3886698.pdf> (paid journal)
- 105.15 Jayavrinda Vrindavanam, Saravanan Chandran, Gautam K. Mahanti, and Vijayalakshmi K., “**Position based Coding Scheme and Huffman Coding in JPEG2000: An Experimental Analysis**”, International Journal of Latest Trends in Engineering and Technology, January 2013, Vol 2. Iss. 1, pp. 39-47, 2013, ISSN 2319-3778. API-3. <http://ijltet.org/wp-content/uploads/2013/01/7.pdf> Impact factor 0.685 (paid)
- 106.16 Jayavrinda Vrindavanam, Saravanan Chandran, Gautam K. Mahanti, and Vijayalakshmi K., “**Huffman Coding and Position based Coding Scheme for Image compression: An Experimental Analysis**”, International Journal of Applied Information System, Vol. ICWAC, No.2, pp.1-5, 2013. ISSN:2249-0868, API-1. <http://www.ijais.org/proceedings/icwac/number2/481-1315> (paid)
- 107.17 C. Saravanan and M. Surender, “**Algorithm for Face Matching Using Normalized Cross-Correlation**”, International Journal of Engineering and Advanced Technology, Vol.2, Iss.4, pp.930-934, 2013. ISSN: 2249 – 8958, Impact Factor 5.02. API-3. <http://www.ijeat.org/download/volume-2-issue-4/> (paid journal)
- 108.18 C. Saravanan and M. Surender, “**Enhancing the Efficiency of Huffman Coding using Lemple Ziv coding for image compression**”, International Journal of Soft Computing and Engineering, Vol.2, Iss.6, pp.38-41, 2013. ISSN: 2231-2307, Impact Factor 4.96. API-3. <http://www.ijscce.org/attachments/File/v2i6/F1081112612.pdf> (paid journal)
- 109.19 Jayavrinda Vrindavanam, Saravanan Chandran, Gautam K. Mahanti, and Vijayalakshmi K., “**JPEG, JPEG2000 and PBCS based Image Compression: An Experimental Analysis**”, International Journal of Computer Applications, USA, Vol.58, No.10, pp.16-21, Nov. 2012. ISBN: 973-93-80870-45-1, ISSN 0975 – 8887, Impact Factor 0.752, API-1 <http://research.ijcaonline.org/volume58/number10/pxc3883550.pdf> (paid journal)
- 110.20 Saravanan Chandran, “**A Novel Technique to Detect Faces in a Group Photo**”, International Journal of Computer Applications, USA, Vol.54, No.1, pp.36-39, Sep. 2012. ISBN: 973-93-80870-45-1, ISSN 0975 – 8887, Impact Factor 0.752, API-5. <http://research.ijcaonline.org/volume54/number1/pxc3882066.pdf> (paid journal)
- 111.21 D.V. Rajan, C. Saravanan, and S.S. Thakur, “**A Heuristic Method for Short Term Load Forecasting using Historical Data for an Inter Connected Grid System**”, Global Journal of Researches in Engineering-F: Electrical and Electronic Engineering, Vol.11, Iss.7-J, Ver.1, pp.8-14, 2011, ISSN Numbers: Online: 2249-4596, Print: 0975-5861. API-1. <http://www.engineeringresearch.org/index.php/GJRE/article/view/288> (paid journal)

- 112.22 C. Saravanan and R. Ponalagusamy, “*Lossless Grey-scale Image Compression using Source Symbols Reduction and Huffman Coding*”, International Journal of Image Processing (CSC Journals), Vol.3, Iss.5, pp.246-251, 2009. ISSN (online): 1985-2304. API-3. Impact factor-7.508 (paid) <http://www.cscjournals.org/manuscript/Journals/IJIP/Volume3/Issue5/IJIP-64.pdf>
- 113.23 C. Saravanan and R. Ponalagusamy, “*Medical Image Compression using Bi-Orthogonal Wavelets and Arithmetic Coding*”, International Journal of Computer, Mathematical Sciences and Applications, Vol. 2 No. 2, pp.81-88, 2008. ISSN: 0973-6786. API-3. (Paid)
- 114.24 C. Saravanan and R. Ponalagusamy, “*Modeling and Analysis of Coding Redundancy for Gray Scale Images using Statistical Coding Technique*”, International Journal on Information Processing, Vol.2, No.3, pp.41-48, 2008. ISSN 0973-8215. API-3. [http://www.ijipbangalore.org/abstracts\\_2\(3\)/p5.pdf](http://www.ijipbangalore.org/abstracts_2(3)/p5.pdf)
- 115.25 C. Saravanan and R. Ponalagusamy, “*Gaussian Noise Estimation Technique for Gray Scale Images using Mean Value*”, Journal of Theoretical and Applied Information Technology, Vol.3, No.4, pp.68-73, Dec. 2007. E-ISSN 1817-3195 / ISSN 1992-8645. API-3. <http://www.jatit.org/volumes/research-papers/Vol3No4/8vol3no4.pdf> (paid journal)
- 116.26 C. Saravanan and R. Ponalagusamy, “*Fast Arithmetic Coding for Lossy Image Compression*”, International Journal of Computer, Mathematical Sciences and Applications, Vol. 1, No. 2-4, pp.257-265, 2007. ISSN: 0973-6786. API-3. (Paid)

### Other Conference Publications - 10

- 117.1 Ajay James, Anjali E P, C Saravanan, *Feature Subset Selection Techniques in Character Recognition*, NCIPMV 2017, Kerala, 22-24, March 2017.
- 118.2 Ajay James, Manjusha J, C Saravanan, *Feature extraction Techniques for Indie Scripts: A Survey*, NCIPMV 2017, Kerala, 22-24, March 2017.
- 119.3 Ronit Roy, Saravanan Chandran, *Comparative Analysis of Retinal Image Segmentation*, 5<sup>th</sup> International Conference on ‘Computing, Communication and Sensor Network, CCSN2016, Kolkata, India, 24-25, Dec 2016.
- 120.4 Satya Bhushan Verma, Saravanan Chandran, *Analysis of SIFT and SURF Feature Extraction in Palmprint Verification System*, International Conference on Computing, Communication and Control Technology, IC4T-2016, Lucknow, India, pp. 27-30, 10-12 November 2016.
- 121.5 Debarpita Chaudhuri, Saravanan Chandran, “*Extraction of Tumours in Medical Images uses Region of Interest*”, presented at 4<sup>th</sup> International Conference on Complex Dynamical Systems and Applications, NIT Durgapur, India, 15-17, February 2016.
- 122.6 Shubham Kumar and Saravanan Chandran, “*Modified Execution Time based Resource Reservation (METRR) Algorithm*”, presented at ICBIM 2016, 9-11, January 2016, ISBN: 978-1-5090-1228-2, NIT Durgapur, INDIA.
- 123.7 Satanand Mishra, J. P. Shukla, C. Saravanan, V. K. Dwivedi, and K. K. Pathak, “*An Innovative Approach of Data Mining Techniques in Stream Flow Forecasting*” ISCA-ISC-2013-5CITS-05, Souvenir of 3<sup>rd</sup> International Science Congress, Coimbatore, India, 8<sup>th</sup> – 9<sup>th</sup> December, 2013. <http://isca.net.co/ListofAbstractPaperReceived.pdf> page no. 38, sl.no. 4.
- 124.8 Navaneitha Krishnaraj R, Ramya M, Geerthika S, Saravanan Chandran, and Parimal Pal, “*Efficacy of Pichia stipitis based Batch Fermentation on the Yield on Bioethanol from mixed substrates*”, 7<sup>th</sup> International Conference on Yiest Biology, IIT Bombay, Mumbai, India, 10-13 December 2011, pp.68. Only abstract published.
- 125.9 Navaneitha Krishnaraj R, Saravanan Chandran, and Parimal Pal, “*A Study on biosynthesis of Indole acetic acid and its effect on Ablmoschus esculentus (L) using computational and biochemical approach*”, 10<sup>th</sup> National Conference on Harnessing the power of microbes for better food, agro-industry, health& environment”, pp.12-13,19-20, Sep. 2011.
- 126.10 C. Saravanan and R. Ponalagusamy “*Arithmetic Coding - Another Approach*”, NCRTAC, Tirunelveli, Tamilnadu, India, February 11, 2005, pp.31-35.

### Ph. D. Supervision 6+1+3=10

S.No	Name of Student	Year	Title of the Dissertation	Status
1.	Dr. Jayavrinda V. Vadakkeparambil, NITD/PHD/ECE/2011/00293 thesis submitted on 09-07-2013, Public Viva Voce completed on 11-11-2013	2010-2013	Image Compression in the Wavelet Domain – An Extension Study	Degree Awarded
2.	Dr. Navaneitha Krishnaraj R., NITD/PhD/ChE/2011/00306 submitted thesis during December 2013, Public Viva Voce completed on 07-03-2014	2010-2014	Design, Optimisation and Analysis of Power Generation by Lignocellulose Based Microbial Fuel Cell	Degree Awarded
3.	Dr. Satanand Mishra NITD/PhD/CE/2011/00321	2010-2016	Data Mining in Real Time Hydrological Forecast	Degree Awarded

	submitted thesis during December 2015, Viva Voce completed on 09-05-2016			
4.	Dr. Satya Bhushan Verma NITD/PHD/CC/2015/00613, 16-04-2015, Thesis Submitted 05-07-2017	2014-2018	Analysis and Modelling of Palmprint Verification System, Viva-voce completed 14-04-2018	Degree Awarded on 11/11/2018
5.	Dr. Thafseela Koya Poolakkachalil NITD/PHD/CC/2015/00620, 01-06-2015 Viva Voce completed on 16-12-2019	2015-2019	Analysis and Modeling of Colour Image Compression for Multimedia, Synopsis Submitted on 4-1-2019, Thesis submitted May 2019	Degree Awarded on 12/01/2021
6.	Dr. Ajay James NITD/PHD/CC/2015/00609, 16-04-2015 Viva Voce completed on 27-08-2020	2015-2020	Offline Recognition of Malayalam Handwritten Text, Synopsis Submitted on 4-1-2019, Thesis submitted May 2019	Degree Awarded on 12/01/2021
7.	Mr. Biswajit Das NITD/PHD/CC/2015/00611, 16-04-2015 Synopsis Submitted – 23-03-2018	2014	Implementation and Synthesis of Efficient Computing Reversible Arithmetic and Logical Circuits to design a reversible ALU	Thesis submitted and under revision
8.	Mr. Sunil Kumar Patel Roll No:17CS1104, 07-06-2018	2017	Investigation and Development of Steganography Schemes Full Time Institute Sponsored Scholar	Registered
9.	Mr. Raj Kumar Paul Roll No. 19CS1108	2019	Analysis and Design of Image Compression Techniques QIP Full Time Scholar	Registered
10.	Ms. Kshitiza Vasudeva Roll No. 19CS1502	2019	Facial Features Extraction for Various Applications using Neural Network TEQIP Part Time Scholar	Registered

## Academic Contributions

<b>Theory courses</b>	Programming in ‘C’ Language, Programming in ‘C++’ Language, Unix Programming, Software Engineering, Information Systems, Introduction to Computing, Introduction to Security, Computer Vision, Biometrics, Data Base Management Systems, Natural Language Processing, Human Computer Interaction, Image Processing, and Programming and Data Structure.
<b>Laboratory courses</b>	Programming in C, Programming in C++, UNIX programming, Data Base Management Systems, Data Structures, Computer Graphics, Computer Vision, Data Base Design, and Image Processing.

### 1. Bharathidasan University, Tiruchirappalli, Tamilnadu, India. 1996-2000

M.C.A. and P.G.D.C.A. Lab and Project supervision.

### 2. National Institute of Technology, Tiruchirappalli, Tamilnadu, India. 2000-2007

#### Odd Semester 2004-2005

MMC308 DBMS Lab (C. Saravanan & S. Nicholas)  
MOR309 DBMS Lab (C. Saravanan)

#### Even Semester 2004-2005

MMC209 O.S. Lab (C. Saravanan & K. Bhuvaneshwari)

#### Odd Semester 2005-2006

MMC 309 GRAPHICS & MULTIMEDIA USING C++ LAB, (C. Saravanan & C. Mouli)  
MOR 309 DBMS LAB. (C. Saravanan)  
MMC 303 SOFTWARE ENGINEERING. (C. Saravanan)

#### Even Semester 2005-2006

BCL605 C++ (C. Saravanan)  
MMC209 OS Lab (C. Saravanan, C.Mouli & B. Smitha)  
CS101 (C. Saravanan)

#### Odd Semester 2006-2007

CA 711 PROGRAMMING IN C (C. Saravanan)

MMC 309	GRAPHICS & MULTIMEDIA USING C++ LAB	(P.J.A.Alphonse, C. Saravanan, & A.V. Reddy)
MOR 309	DBMS LAB	(C. Saravanan)
<b>Even Semester 2006-2007</b>		
CA704	OPERATING SYSTEMS LAB	(B. Ramadoss, M. Arock, & C. Saravanan)
MMC408	JAVA LAB	(S. R. Balasundaram, C. Saravanan, & Ilangaovan)
CA754	OS LAB	(C. Saravanan)

### 3. National Institute of Technology, Durgapur, West Bengal, India. 2007-Till date.

#### **Odd Semester 2007-2008**

CSE201	Introduction to Computing	(Chandran Saravanan)
CSE201	Introduction to Computing	(Chandran Saravanan)

#### **Odd Semester 2008-2009**

CSE201	Introduction to Computing	(Chandran Saravanan)
CSE251	Computing Laboratory	(Chandran Saravanan)

#### **Odd Semester 2009-2010**

IT-1003	Introduction to Security	(Chandran Saravanan)
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#### **Odd Semester 2011-2012**

IT-1003	Introduction to Security	(Chandran Saravanan)
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#### **Even Semester 2012-13**

One M.Tech. Scholar	completed Project	(Chandran Saravanan)
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#### **Odd Semester 2013-2014**

CA-1102	Introduction to Programming	(Chandran Saravanan)
CA-1151 Lab	Programming Lab	(Chandran Saravanan)

#### **Odd Semester 2014-15**

CC-1002	Computer Vision using HPC	(Chandran Saravanan)
CC-1052	Computer Vision Laboratory	(Chandran Saravanan)
CC-9013	Biometrics	(Chandran Saravanan)

#### **Even Semester 2014-15**

CC-2002	Database Design for HPC	(Chandran Saravanan)
CC-9014	Human-Computer Interaction	(Chandran Saravanan)
CC-9016	Natural Language Processing	(Chandran Saravanan)
CC-2052	Database Laboratory	(Chandran Saravanan)

#### **Odd Semester 2015-16**

CC-1002	Computer Vision using HPC	(Chandran Saravanan)
CC-1052	Computer Vision Laboratory	(Chandran Saravanan)
CC-9013	Biometrics	(Chandran Saravanan)

#### **Even Semester 2015-16**

CC-2002	Database Design for HPC	(Chandran Saravanan)
CC-9014	Human-Computer Interaction	(Chandran Saravanan)
CC-9016	Natural Language Processing	(Chandran Saravanan)
CC-2052	Database Laboratory	(Chandran Saravanan)

#### **Odd Semester 2016-17**

Seven M.Tech. Scholars	completed Projects	(Chandran Saravanan)
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#### **Even Semester 2016-17**

Six M.Tech. Scholars	completed Projects	(Chandran Saravanan)
CS-01	Introduction to Computing	(Chandran Saravanan)
CS-51	Computing Laboratory	(Chandran Saravanan)

#### **Odd Semester 2017-18**

CS-701	Digital Image Processing	(Chandran Saravanan / G. Sanyal)
CS-752	Digital Image Processing Laboratory	(Chandran Saravanan / G. Sanyal)
CSC-01	Introduction to Computing	(Chandran Saravanan)
CSS-01	Introduction to Computing Lab	(Chandran Saravanan)
CS-1951	Research Methodology	(Chandran Saravanan)
CSE-9024	Computer Vision	(Chandran Saravanan)
CSE-9056	Biometric	(Chandran Saravanan)

#### **Even Semester 2017-18**

CSC-01	Introduction to Computing	(Chandran Saravanan)
CSS-01	Introduction to Computing Lab	(Chandran Saravanan)
IT-813	Digital Image Processing	(Chandran Saravanan / G. Sanyal)

#### **Odd Semester 2018-19**

CS-701	Digital Image Processing	(Chandran Saravanan / G. Sanyal)
CS-752	Digital Image Processing Laboratory	(Chandran Saravanan / G. Sanyal)
CS-01	Introduction to Computing	(Chandran Saravanan)



CS-51 Computing Laboratory (Chandran Saravanan)

**Even Semester 2018-19**

CSC-01 Introduction to Computing (Chandran Saravanan)

CSS-01 Introduction to Computing Lab (Chandran Saravanan)

CSC483 Data Structures Lab (Chandran Saravanan)

**Odd Semester 2019-20**

CSE-9110 Digital Image Processing (Chandran Saravanan)

XE-9031 Research Methodology (Chandran Saravanan)

CS-9063 Human Computer Interaction (Chandran Saravanan)

CS-9064 Management Information Systems (Chandran Saravanan)

CS-9065 System Analysis and Design (Chandran Saravanan)

**Even Semester 2019-20**

CSS453 (A & B) Signal Processing Lab (Chandran Saravanan & Debasis Nandi)

CS9047 Digital Image Processing (Chandran Saravanan)

CS9058 Information and System Security (Chandran Saravanan)

**Odd Semester 2020-21**

CSE-9110 Digital Image Processing (Chandran Saravanan)

CSC-01 Introduction to Computing (Chandran Saravanan)

CSS-01 Introduction to Computing Lab (Chandran Saravanan)

**Even Semester 2020-21**

CSC431 Programming & Data Structure (Chandran Saravanan)

CSS 481 Programming & Data Structure Lab (Chandran Saravanan)

**Odd Semester 2021-22**

CSE717 Biometrics (Chandran Saravanan)

CSC-01 Introduction to Computing (Chandran Saravanan)

CSS-01 Introduction to Computing Lab (Chandran Saravanan)

**Even Semester 2021-22**

CSC431 Programming & Data Structure (Chandran Saravanan)

CSS 481 Programming & Data Structure Lab (Chandran Saravanan)

CSC-01 Introduction to Computing (Chandran Saravanan)

CSS-01 Introduction to Computing Lab (Chandran Saravanan)

**Odd Semester 2022-23**

CSC-01 Introduction to Computing (Chandran Saravanan)

CSS-01 Introduction to Computing Lab (Chandran Saravanan)

**Even Semester 2022-23**

CSC-01 Introduction to Computing (Chandran Saravanan)

CSS-01 Introduction to Computing Lab (Chandran Saravanan)

**B.Tech. Project Details – 18+5+6=29+5**

Sl.	Student Name	Roll No.	Period	Title of the B.Tech. Project
1.	Ritik Gautam	15/IT/34	May 2019	Classification of Buildings and Vehicles
2.	Shreya De	15/IT/10	May 2019	Google Earth Image classification
3.	Ravi Teja	15/IT/56	May 2019	Automatic License Plate Recognition
4.	Arnab Kumar Goswami	15/CS/53	May 2019	Physiognomy
5.	Aayush Raj	15/CS/38	May 2019	Facial detection and Recognition
6.	Divyansh Kumar Singh	15/CS/97	May 2019	Block based Fractal Image Compression
7.	Divya Singh	16/CS/8011	May 2020	Image Compression using Haar Wavelet
8.	Raghav Grover	16/CS/8017	May 2020	Image Compression using Huffman Coding
9.	Patchala Sandeep Renu	16/CS/8038	May 2020	Person Detection in an image using Mobilenet-SSD
10.	Asim Bera	16/CS/8042	May 2020	PDF Steganography with Hybrid Encryption
11.	Tanishq Yadav	16/CS/8045	May 2020	Road Extraction from High Resolution Satellite Image
12.	Amreet Nayak	16/CS/8084	May 2020	Road Extraction of High-Resolution Satellite Images
13.	Samba Krubally	16/CS/8100	May 2020	Malaria Identification using Random Forest Classifier
14.	Vellanki Sai Vinay	16CS8004	May 2021	Image Compression
15.	Jasai Hansda	17CS8021	May 2021	Medical Image Processing using Fiji
16.	Abhinav Prakash	17CS8047	May 2021	Image Compression
17.	Adnan Masroor	17CS8053	May 2021	Health Records Web App
18.	Avinash Agarwal	17CS8065	May 2021	Steganography

19.	Spandan Pal	18CS8001	May 2022	Facial Expression Recognition
20.	Saswata Bagchi	18CS8016	May 2022	Laptop Issue
21.	Arya Verma	18CS8097	May 2022	I-Vote App
22.	Kalvakuntla Phani Santhosh	18CS8111	May 2022	Face Mask Detection
23.	Binita Karmakar	18CS8162	May 2022	Face Recognition
24.	Ankit Vishwakarma	19CS8025	May 2023	
25.	Deepto Ghanti	19CS8059	May 2023	
26.	Vishal Virupan Mangade	19CS8091	May 2023	
27.	Kankan Paramanik	19CS8148	May 2023	
28.	Shaik Nannu Abdul Hafiz	19CS8153	May 2023	
29.	Aishika Midder	19CS8162	May 2023	
30.	Sankalp Garg	20CS8152	May 2024	
31.	Satyam Singh Rajput	20CS8178	May 2024	
32.	Akashdeep Singh	20CS8090	May 2024	
33.	Yendluri Mounika Brahmani	20CS8141	May 2024	
34.	Neloy Deb	20CS8122	May 2024	

### PG Project Details – 1+7+6+1+1+2+3+2=23

Sl.	Student Name	Roll No.	Period	Title of the M.Tech. Dissertation
1.	M. Surender	11/IT/423	May 2013	Algorithm for Face Matching Using Normalized Cross-Correlation
2.	Amrita Saha	14/CC/401	Dec. 2014	Comparative Study of Gaussian Filter with Median Filter for Salt & Pepper Noise, Gaussian Noise and Speckle Noise
3.	Shubham Kumar	14/CC/404	Dec. 2014	Analysis of Graph Coloring Problem
4.	Aishwarya	14/CC/407	Dec. 2014	Comparative Study of Huffman Coding and Arithmetic Coding
5.	Ramesh Kumar Thakur	14/CC/411	Dec. 2014	Implementation of Cryptography using XOR operator
6.	Pushpendra Singh	14/CC/412	Dec. 2014	Motion-blurred Star Image Restoration Using Weiner Filter
7.	Sandhya Kumari	14/CC/416	Dec. 2014	Image Compression using Neural Network
8.	Koushik Bhattacharyya	14/CC/418	Dec. 2014	Analysis of Digital Image Watermarking using Text
9.	Amrita Saha	14/CC/401	Apr 2015	Enhancement of Fingerprint Image
10.	Shubham Kumar	14/CC/404	Apr 2015	Effective Resource Management Technique using Reservation Pool
11.	Aishwarya	14/CC/407	Apr 2015	Detection of face region
12.	Ramesh Kumar Thakur	14/CC/411	Apr 2015	Implementation of Cryptography using NOR operator
13.	Pushpendra Singh	14/CC/412	Apr 2015	Development of Recommendation System
14.	Sandhya Kumari	14/CC/416	Apr 2015	Survey on Medical Image Compression
15.	Koushik Bhattacharyya	14/CC/418	Apr 2015	Analysis of Digital Image Watermarking using Video
16.	Amrita Saha	14/CC/401	Dec. 2015	Fingerprint Image Enhancement using Wavelet Techniques
17.	Shubham Kumar	14/CC/404	Dec. 2015	Analysis of Enhanced K Strange Points Clustering Algorithm
18.	Aishwarya	14/CC/407	Dec. 2015	Face Detection in Color Images using Skin Color Detection and RGB Normalisation
19.	Ramesh Kumar Thakur	14/CC/411	Dec. 2015	Classification of Color Hazy images
20.	Pushpendra Singh	14/CC/412	Dec. 2015	Enhancement of Palmprint using Shock Filter
21.	Sandhya Kumari	14/CC/416	Dec. 2015	Medical Image Compression
22.	Koushik Bhattacharyya	14/CC/418	Dec. 2015	Screening Diabetic Retinopathy using Statistical Methods
23.	Amrita Saha	14/CC/401	Apr 2016	Fingerprint Feature Extraction using Crossing Number (CN) Method
24.	Shubham Kumar	14/CC/404	Apr 2016	Analysis of Resource Reservation for Cloud Computing
25.	Aishwarya	14/CC/407	Apr 2016	Smile Detection using Viola Jones Algorithm

26.	Ramesh Kumar Thakur	14/CC/411	Apr 2016	Haze removal on Color Images
27.	Pushpendra Singh	14/CC/412	Apr 2016	Palmprint Recognition System using Kernel PCA
28.	Sandhya Kumari	14/CC/416	Apr 2016	Image Compression using Neural Networks
29.	Koushik Bhattacharyya	14/CC/418	Apr 2016	Attitude Detection of a Person using Metoposcopy
30.	Marichi Agarwal	15/CC/404	Apr 2016	Fault impairment in Optical Networks Routing
31.	Neha Agarwal	15/CC/405	Apr 2016	Analysis of Segmentation in Lung Radiography Images
32.	Priti Singh	15/CC/406	Apr 2016	Comparative Study of Binary Partition Tree Applications
33.	Ronit Roy	15/CC/407	Apr 2016	Survey Report on Retinal Image Segmentation
34.	Debmalya Chatterjee	15/CC/409	Apr 2016	Remote Controlling a ROBOT Through Eye Gazes
35.	Surjya Kanta Ghosh	15/CC/410	Apr 2016	Classification of Objects in Google Map
36.	Marichi Agarwal	15/CC/404	Nov 2016	Offline Optimization of Regeneration Sites for efficient RWA in WDM Translucent Optical Network
37.	Neha Agarwal	15/CC/405	Nov 2016	Hiding a Face in A Fingerprint to Improve the Security
38.	Priti Singh	15/CC/406	Nov 2016	Enhanced Privacy Assured Outsourcing Image Reconstruction Service for Cloud
39.	Ronit Roy	15/CC/407	Nov 2016	Comparative Analysis of Retinal Image Segmentation
40.	Debmalya Chatterjee	15/CC/409	Nov 2016	Tele-operation through eye gaze
41.	Surjya Kanta G.	15/CC/410	Nov 2016	Identification of Objects in Google Map
42.	Marichi Agarwal	15/CC/404	May 2017	New Polynomial Time Solvable Heuristic Algorithm (NPTSHA) for optimal regeneration station selection
43.	Neha Agarwal	15/CC/405	May 2017	License Plate Number Recognition
44.	Priti Singh	15/CC/406	May 2017	Comparative Study of the Region of Interest Based Medical Image Compression
45.	Ronit Roy	15/CC/407	May 2017	Analysis of Recent Retinal Image Segmentation Techniques
46.	Debmalya Chatterjee	15/CC/409	May 2017	Prediction and Analysis of Heart Disease using AML and Power BI
47.	Surjya Kanta G.	15/CC/410	May 2017	Know your property from Google Map Image
48.	Kasu Narasimha Raju	17CS4109	May 2019	Segmentation on Chest Radiographs Using Otsu's and K-means Clustering Method - ICIRCA 2018
49.	Shoubhik Das - MCA	16CA6002	May 2019	Analysis of Image Compression using DCT and AC
50.	Karthika N J	18/CS/4139	Apr 2019	Human Detection
51.	Sushma Bandi	18/CS/4151	Apr 2019	Text Classification
52.	Karthika N J	18/CS/4139	Nov 2019	Pedestrian Detection from images and surveillance videos
53.	Sushma Bandi	18/CS/4151	Nov 2019	Phrase Extraction using K-Means Clustering Algorithm
54.	Karthika N J	18/CS/4139	Apr 2020	Pedestrian Detection Using Single Shot MultiBox Detector and PnPLO Dataset
55.	Sushma Bandi	18/CS/4151	Apr 2020	Quora Question Pair Similarity using Logistic Regression, Linear SVM, Xgboost Algorithms
56.	Vijay Zaware	19CS4144	Dec 2020	Sentiment Analysis on Amazon Food Reviews
57.	Shaik Aizaz Ahammad	19CS4156	Dec 2020	Stackover Flow Tag Prediction
48.	Ajit Kumar	19CS4136	Dec 2020	A Computer Vision Application For Assessing Facial Acne Severity From Image
49.	Vijay Zaware	19CS4144	May 2021	Sentiment Analysis on Amazon Food Reviews
50.	Shaik Aizaz Ahammad	19CS4156	May 2021	Stackover Flow Tag Prediction
51.	Ajit Kumar	19CS4136	May 2021	A computer vision application for assessing facial acne severity from image
52.	Jaya Krishna Bhonagiri	20CS4101	May 2022	Face Classification for Regions Asia, Africa, ...
53.	Satyabrata Jena	20CS4102	May 2022	Image compression using Machine Learning
54.	Vinay Kumar	20CS4168	May 2022	Facial Emotion Recognition
55.	Anipindi Rajesh	21CS4106	May 2023	Facial Feature Extraction

56.	Swati Singh	21CS4107	May 2023	Prediction of the Age and Gender
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<b>2003-04</b>	<b>Project – 5 students (116,131,153, 146,161) completed</b>
<b>2006-07</b>	<b>Project – 8 students completed</b>
<b>2011-13</b>	<b>Project – 1 M.Tech. students completed</b>
<b>2014-15 Odd</b>	<b>Project - 7 M.Tech. students completed</b>
<b>2014-15 Even</b>	<b>Project - 7 M.Tech. students completed</b>
<b>2015-16 Odd</b>	<b>Project - 13 M.Tech. students completed</b>
<b>2015-16 Even</b>	<b>Project - 13 M.Tech. students completed</b>
<b>2016-17 Odd</b>	<b>Project – 6 M.Tech. students completed</b>
<b>2016-17 Even</b>	<b>Project – 6 M.Tech. students completed</b>
<b>2017</b>	<b>Summer Interns – 6 B.Tech. students completed</b>
<b>2017-2018</b>	<b>Project – 1 M.Tech. students and 6 B.Tech. students completed</b>
<b>2018</b>	<b>Summer Interns – 7 B.Tech. students completed</b>
<b>2018-2019</b>	<b>6 B.Tech. Projects, 1 MCA project, 1 M.Tech. project completed</b>
<b>2019-2020</b>	<b>7 B.Tech. Projects, 2 M.Tech. projects</b>
<b>2020-2021</b>	<b>5 B.Tech. Projects, 3 M.Tech. projects</b>
<b>2021-2022</b>	<b>5 B.Tech. Projects, 2 M.Tech. projects</b>
<b>2022-2023</b>	<b>6 B.Tech. Projects, 2 M.Tech. projects</b>

## Student Internship

1. Rounak Mukherjee, Computer Science and Engineering, Kalyani Government Engineering College, Kolkata, Lossy Image Compression using SVD coding and Compressive Autoencoders. **2017**
2. Aishwarya Dey, Information Technology, Jalpaiguri Government Engineering College, Analysis of Adaboost Algorithm for Smile Detection Application.
3. Sourav Kumar Singh, Computer Science and Engineering, Jalpaiguri Government Engineering College, Analysis of Image Stitching Models.
4. Ayush Narayan Shukla, Computer Science and Engineering, Jalpaiguri Government Engineering College, Development of website on “Experts Reviews on Phones (ERP)” using CMS.
5. Sudipta Chattopadhyay, Electronics and Communication Engineering, Jalpaiguri Government Engineering College, Android based Smart Phone Contact Manager.
6. Sagnik Banerjee, Computer Science and Engineering, Institute of Technical Education and Research, Bhubaneswar, Interfacing C and SQLite.
7. Joy Brata Sarkar, Computer Science and Engineering, Central Institute of Technology, Kokrajhar, Assam, New lossy image compression model using Run Length Coding and Huffman Coding, **2018**
8. Koushik Mondal, Information Technology, Jalpaiguri Government Engineering College, Face Recognition for Attendance,
9. Sangita Dey, Information Technology, Jalpaiguri Government Engineering College, Online Goods and Service Tax Preparation
10. Shivani Sinha, Information Technology, Jalpaiguri Government Engineering College, Online Individual Income Tax Form-16 Preparation
11. Sudipta Dandapat, Computer Science and Engineering, Jalpaiguri Government Engineering College, Classification of Diabetic Retinopathy Using Machine learning Algorithms
12. Nitin Sharma, Computer Science and Engineering, Jalpaiguri Government Engineering College, Road Identification in Google Maps
13. Sanket Bhattacharya, Computer Science and Engineering, Jalpaiguri Government Engineering College, Stitching Google Map Images
14. Souvik Mondal, Computer Science and Engineering, Jalpaiguri Government Engineering College, Feature Extraction & Matching of Iris using ImageJ
15. Vikas Kumar Patel, Chemical Engineering, National Institute of Technology, Durgapur, Steganography, Developing Steganography Algorithm using Medical Image and Pathological Report
16. Arghyadip Sinha, Computer Science and Engineering, Jalpaiguri Government Engineering College, Analysis of Machine Learning Algorithms for Segmenting Google Earth Images
17. Ashis Kumar Singh, Bachelor of Technology (B.Tech), Computer Science (2018 - 2022), University Of Engineering And Management, Jaipur, Road Extraction from Satellite Images using Thresholding, Morphological and Contouring Operations **2019**
18. Gunjan Paul, Bachelor of Technology (B.Tech), Computer Science (2018 - 2022), University Of Engineering And Management, Jaipur, Building Detection from Satellite Aerial Images using Thresholding, XOR, and Morphological Operations.

19. Purushottam Kumar, Computer Science and Engineering, National Institute of Technology Durgapur, Secure Digital Academic Certificate using Blockchain, May-July 2020
20. Soumita Biswas, Information Technology, Japlaiguri Government Engineering College, Facial Expression Recognition, July-August.

### **Ph.D. Public Viva-Voce Examination Board Member / Expert / Examiner appointments:**

- 1) National Institute of Technology, Tiruchirappalli, Tamilnadu
- 2) Anna University, Chennai
- 3) Vel Tech University, Chennai
- 4) VIT, Vellore – 632 014, Tamil Nadu
- 5) Sathyabama University, Chennai, Tamilnadu,
- 6) SRM Institute of Science and Technology Kattankulathur, Chennai
- 7) B S Abdur Rahman Crescent Institute of Science and Technology, Chennai
- 8) Hindustan Institute of Technology and Science (Hits) Chennai
- 9) Barkatullah Vishwa Vidyalaya, Bhopal
- 10) Vignan's Foundation for Science, Technology, & Research Deemed to be University

### **Ph.D. theses evaluated:**

1. National Institute of Technology, Tiruchirappalli
2. Maulana Azad National Institute of Technology, Bhopal
3. Anna University, Chennai
4. VIT, Vellore, Tamil Nadu
5. SRM Institute of Science and Technology Kattankulathur, Chennai
6. Jawaharlal Nehru Technological University, Hyderabad
7. Manonmaniam Sundaranar University, Tirunelveli
8. Barkatullah Vishwa Vidyalaya, Bhopal, Madhya Pradesh
9. Bharathidasan University, Tiruchirappalli
10. Karpagam University, Coimbatore, Tamilnadu
11. Vel Tech University, Chennai
12. Sathyabama University, Chennai, Tamilnadu
13. University of Madras, Chennai, Tamilnadu
14. B S Abdur Rahman Crescent Institute of Science and Technology, Chennai, Tamilnadu
15. Sathyabama Institute of Science and Technology, Chennai
16. Hindustan Institute of Technology and Science (Hits) Chennai
17. Cochin University, Kerala
18. Osmania University, Hyderabad
19. Vignan's Foundation for Science, Technology, & Research Deemed to be University

### **Administrative and Academic Activities Accomplished:**

#### **a) Bharathidasan University, Tiruchirappalli, Tamilnadu, India.**

- 1) Computerised Centre for Distance Education – 1996 – 1997
- 2) Laboratory In-charge for PGDCA – 1997-98.
- 3) In charge for Informatics Centre – 1998-2000 – Established Internet facilities.

#### **b) National Institute of Technology, Tiruchirappalli, Tamilnadu, India.**

- 1) Implemented Digital Library on IBM RS-6000 and Solaris Clusters for HPC – 2003.
- 2) Expert, Purchase Committee, Department of Physics, Bharathidasan University–2003.
- 3) Member of Board of Question Paper Setters, Periyar University – 2003.
- 4) Member of Screening Committee, DOEACC Society – 2003.
- 5) Member of Board of Question Paper Setters, Periyar University – 2004.
- 6) P.A.C. Chairman for MCA II Semester – 2005.
- 7) Member of TEQIP Rural Development Committee – 2005.
- 8) Practical Examiner for M.Sc. Bio-Informatics, Bharathidasan University – 2006.

#### **c) National Institute of Technology, Durgapur, West Bengal, India.**

- 1) Head of Computer Centre, from 08-08-2007 to 29-07-2013 and 27-07-2015 to 09-08-2016.
- 2) Senate Member, 25-08-2007, from 25-08-2007 to 17-01-2008.
- 3) Member of Selection Committee to the post of Lecturer / Programmer, 30-08-2007.
- 4) Member of Selection Committee to the post of Lecturer / Programmer, 16-09-2008.
- 5) Chairperson, Doctoral Research Program Committee, 2014-2016.
- 6) Chairperson, Doctoral Scrutiny Committee, 2014-2016.

- 7) Convener of IT Infrastructure Committee, from 19-07-2007 to 11-07-2014.
- 8) Convener of a Committee to dispose obsolete computers, from 01-10-2007.
- 9) Convener of a Tender Committee for TEQIP Phase – I, 29-10-2007.
- 10) Established Computer Vision Lab for M.Tech. High Performance Computing 2014.
- 11) Established Database Lab for M.Tech. High Performance Computing 2014.
- 12) Member of a Mentoring Committee for TEQIP Phase – I, 03-01-2008.
- 13) Member of an Admission Committee – 24-03-2008.
- 14) Member of a TEQIP Committee – 24-03-2008.
- 15) Member of a RECSTACY Committee – 31-03-2008.
- 16) Member of Institute Automation Task Force – 11-04-2008.
- 17) Member of Delegation to National University of Singapore – 04-07 May 2008.
- 18) Member of an Admission Sub-Committee – 08-05-2008.
- 19) Member of Admission Committee – CCB – 25-06-2008.
- 20) Member of a Mentoring Committee for TEQIP Phase – I, 01-07-2008.
- 21) Member of an Admission Committee – 15-04-2009.
- 22) Member of a RECSTACY Committee – 15-03-2010.
- 23) Member of a Committee to implement Student Academic System – 24-03-2010.
- 24) Member of Admission and Prospectus Committee – 20-04-2010.
- 25) Member of Anti-Ragging Committee – 12-08-2010.
- 26) Member of Institutional Purchase Committee – TEQIP – Phase II, 28-04-2011
- 27) Member of an Office Management Information System Committee – 13-05-2011.
- 28) Member of a Committee for CCB 2011 – 08-06-2011.
- 29) Member of Anti-Ragging Committee – 16-07-2011.
- 30) Nodal Officer for IPv6 Road Map, MHRD – from 26-08-2011.
- 31) One of the Panel of Judges for ISTE Technical Session II – 04-05, Feb. 2012.
- 32) Member of Training, Placement and Scholarship, 26-07-2012.
- 33) Member of a Committee for CCB 2012 – 25-06-2012.
- 34) Member of a Committee for CCMT 2012 – 29-06-2012.
- 35) Coordinator for National Mission on Education through Information and Communication Technology (NMEICT) government project – 04-04-2013.
- 36) External Examiner, M.Tech. final year project – 28-05-2013.
- 37) Member of committee evaluate NIC proposal – 19-07-2013.
- 38) Member of Selection Committee to the post of Assistant Teacher, 26-08-2013.
- 39) Member of Software Procurement Committee – 19-11-2013.
- 40) Member of Institute Automation Committee, from 30-08-2013.
- 41) Member of Examination Disciplinary Committee – 13-01-2014.
- 42) Observer in West Bengal Joint Engineering Entrance 19 & 20 April 2014.
- 43) Micro Observer in Parliamentary Election, Government of India, 29 & 30 April 2014.
- 44) Member of IT Infrastructure Committee, from 11-07-2014.
- 45) Nodal Officer, NKN-NMEICT, NIT Durgapur, from 17-07-2014.
- 46) Member of a committee for Information Security Education and Awareness Phase I & II project.
- 47) Convener of IT Infrastructure and Services Committee, NIT Durgapur, 06-04-2016 to 09-08-2016 (From 02-02-2017 to 26-03-2019).
- 48) Micro Observer in Assembly Election, West Bengal, Government of India, 11<sup>th</sup> April 2016.
- 49) Member of Library Committee, 22<sup>nd</sup> April 2016.
- 50) Accomplished Anti Ragging Duty – 12-08-2014.
- 51) Accomplished Invigilation Duty every Semester from 2007 onwards.
- 52) Member of Ph.D. admission committee 19-07-2018
- 53) Faculty Advisor for CSE & IT Courses from 23-07-2018
- 54) Anti-Ragging duty 2018
- 55) Domain Expert, Technical and Purchase Committee, CSIR-Central Mechanical Engineering Research Institute, 17-12-2019
- 56) Member of space committee, Department of CSE, NIT Durgapur, 2022
- 57) Member of physical verification committee, NIT Durgapur, 2022

### Foreign Visits:

Country	Purpose of visit	Year & duration	Funding Agency
Nepal	Presenting our research article in a conference	10-12, December 2005	National Institute of Technology, Tiruchirappalli
Singapore	Member of Delegation to National University of Singapore	04-07, May 2008	National Institute of Technology, Durgapur

United States of America	Research Collaboration	07 November to 20 December 2008	National Institute of Technology, Durgapur
Indonesia	Presenting my research article in a conference	19-21, March 2010	National Institute of Technology, Durgapur
Switzerland	Presenting my research article in a conference	08-09, September 2011	National Institute of Technology, Durgapur
France	Presenting our research article in a conference	12-13, October 2013	National Institute of Technology, Durgapur
Thailand	Presenting our research article in a conference	15 <sup>th</sup> February 2014	National Institute of Technology, Durgapur
Hong Kong	Presenting our research article in a conference	25-27, August 2014	National Institute of Technology, Durgapur
Dubai	Presenting my research article in a conference	22-23, May 2015	National Institute of Technology, Durgapur
Oman	Guest faculty	05-10, December 2015	Caledonian College of Engineering, Sultanate of Oman
Australia	Presenting my research article in a conference	03-04, August 2016	National Institute of Technology, Durgapur
China	Presenting my research article in a conference	05-06, September 2016	National Institute of Technology, Durgapur
Mauritius	Presenting my research article in a conference	21-22, July 2017	National Institute of Technology, Durgapur
Austria	Presenting our research article in a conference	17-19, September 2019	National Institute of Technology, Durgapur
Thailand	Presenting our research article in a conference	21-24, February 2023	National Institute of Technology, Durgapur
Malaysia	Presenting our research article in a conference	3-5, May 2023	National Institute of Technology, Durgapur

**Passport Details:** Number: L2068858, Place of Issue: Kolkata, India, Date of Issue: 10-07-2013, Date of Expire: 09-07-2023.

## References

1. **Prof. G. K. Mahanti**, Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Durgapur, West Bengal, India, Pin – 713209. Email: [gautammahanti@yahoo.com](mailto:gautammahanti@yahoo.com) Mobile +91-94347-88107. (Present Organisation)
2. **Prof. R. Ponalagusamy**, Professor, Department of Mathematics, National Institute of Technology, Tiruchirappalli, Tamilnadu, India, Pin – 620015. Email: [rpalagu@nitt.edu](mailto:rpalagu@nitt.edu) Mobile +91-74024-48889 (Former Organisation)
3. **Dr. P. Muruganandam**, Associate Professor, Department of Physics, Bharathidasan University, Tiruchirappalli, Tamilnadu, India, Pin – 620024 Email: [anand@cnld.bdu.ac.in](mailto:anand@cnld.bdu.ac.in) Phone +91-431-2407057. (Former Organisation)

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<a href="#">Color Image to Grayscale Image Conversion</a> , C Saravanan, IEEE International Conference on Telecom Technology and Applications 2, 196-199	<a href="#">250</a>	2010
<a href="#">Functionalization of electrochemically deposited chitosan films with alginate and Prussian blue for enhanced performance of microbial fuel cells</a> , R Navanietha Krishnaraj, R Karthikeyan, B Sheela, C Saravanan, ... Electrochimica Acta 112, 465-472	<a href="#">52*</a>	2013
<a href="#">Emergency Response Cyber-Physical Framework for Landslide Avoidance with Sustainable Electronics</a> , CSEGHG Vania V. Estrela, Osamu Saotome, Hermes J. Loschi, Jude Hemanth ..., Technologies 6 (2)	<a href="#">49</a>	2018
<a href="#">Algorithm for Face Matching Using Normalized Cross-Correlation</a> , C Saravanan, M Surender, International Journal of Engineering and Advanced Technology (Impact Factor ...	<a href="#">46</a>	2013
<a href="#">Performance Analysis of LSB, DCT, and DWT for Digital Watermarking Application using Steganography</a> , Saravanan Chandran, Koushik Bhattacharyya, International Conference on Electrical, Electronics, Signals, Communication ...	<a href="#">43*</a>	2015
<a href="#">Malayalam handwritten character recognition using convolutional neural network</a> , CS Pranav P Nair, Ajay James, 2017 International conference on inventive communication and computational ...	<a href="#">42</a>	2017
<a href="#">Lossless Grey-scale Image Compression using Source Symbols Reduction and Huffman Coding</a> , C Saravanan, R Ponalagusamy, International Journal of Image Processing (IJIP) 3 (5), 246	<a href="#">34</a>	2009
<a href="#">Advancements and recent trends in emotion recognition using facial image analysis and machine learning models</a> , T Kundu, C Saravanan, 2017 International Conference on Electrical, Electronics, Communication ...	<a href="#">31</a>	2017
<a href="#">A survey of image compression methods</a> , J Vrindavanam, S Chandran, GK Mahanti, Proceedings on International Conference and Workshop on Emerging Trends in ...	<a href="#">20</a>	2012
<a href="#">Automated Road Extraction From High Resolution Satellite Images</a> , J Hormese, C Saravanan, Procedia Technology 24, 1460-1467	<a href="#">37</a>	2016
<a href="#">Enhancing efficiency of Huffman coding using Lempel Ziv coding for Image compression</a> , C Saravanan, M Surender, International Journal of Soft Computing (Impact Factor 1.0) 2 (6), 38-41	<a href="#">21</a>	2013
<a href="#">A novel tri-stage recognition scheme for handwritten Malayalam character recognition</a> , KS Varghese, A James, S Chandran, Procedia Technology 24, 1333-1340	<a href="#">16</a>	2016
<a href="#">Pattern Discovery in Hydrological Time Series Data Mining during the Monsoon Period of the High Flood Years in Brahmaputra River Basin</a> , KKP S. Mishra, V. K. Dwivedi, C. Saravanan, International Journal of Computer Applications 67 (6), 7-14	<a href="#">16</a>	2013
<a href="#">Comparative study of camshift and KLT algorithms for real time face detection and tracking applications</a> , D Chatterjee, S Chandran, Research in Computational Intelligence and Communication Networks (ICRCICN ...	<a href="#">15</a>	2016
<a href="#">Autonomous robust helipad detection algorithm using computer vision</a> , RO Prakash, C Saravanan, 2016 International Conference on Electrical, Electronics, and Optimization ...	<a href="#">15</a>	2016



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