

## Faculty Profile

<b>Name of Faculty</b>	Dr. Saritha Chakrasali
<b>Department</b>	Information Science & Engineering
<b>Qualification</b>	B.Tech, M.Tech, Ph.D.
<b>Designation</b>	Professor
<b>Area of specialization</b>	Image Processing
<b>Date of Joining BNMIT</b>	10 <sup>th</sup> Sept 2001
<b>Nature of Association (Regular/Contractual/Adjunct)</b>	Regular
<b>e-mail</b>	sarithachakrasali@bnmit.in, saritha.chakrasali@gmail.com
<b>No. of years of Experience</b>	Teaching: 17 Years Research: 11 Years



### Academic Qualifications

<b>Ph.D.</b>	2014	Computer Science,	Madurai Kamaraj University, India.
<b>M.Tech</b>	2005	Information Technology,	AAIDU, India.
<b>B.Tech</b>	1995	Silk Technology	Bangalore University, India.

### Working Experience Details

Professor	Dept. of ISE	BNMIT, Bangalore, India	(01st Sept 2014– Till date)
Associate Professor	Dept. of ISE	BNMIT, Bangalore, India	(5 <sup>th</sup> Mar 2012– 31 <sup>st</sup> Aug 2014)
Assistant Professor	Dept. of ISE	BNMIT, Bangalore, India	(2 <sup>nd</sup> Jan 2008– 4 <sup>th</sup> Mar 2012)
Lecturer	Dept. of ISE	BNMIT, Bangalore, India	(10 <sup>th</sup> Sep 2001– 1 <sup>st</sup> Jan 2008)

### Course taught

Programming with C, Data structures using C, Object Oriented Programming with C++, Principles of Programming Languages, Software Engineering, Object Oriented Analysis and Design, Database Management Systems, Analysis and Design of Algorithms, Cryptography and Network Security/ Information and Network Security, Unix and Shell Programming, Unix Systems Programming, Discrete Mathematical Structures, C# and .Net, Advanced Algorithm, Java & J2EE, Design Patterns, Agile Technologies, Artificial Intelligence.

### Research Experience Details:

#### Ph.D:

Medical image security is an important requirement of teleradiology. The work on “Medical Image Security - Search for Generic Solution” involved designing, implementing and validating contourlet based, genetic algorithm optimized medical image watermarking algorithms. This work makes a progressive step in the direction of developing a generic solution for medical image security by providing watermarking algorithms that exploit the multi-resolution characteristics of CT and the adaptive nature of GA. The successful application of the GA-based watermarking algorithms in contourlet domain, developed in this work for watermarking both gray and color medical images of various modalities is likely to enhance research interest for providing generic solutions not only for security in medical image transmission across public network, but also may serve as a viable tool for highly textured multispectral images such as satellite imagery of sensitive information.

### Research Supervision

Sl.No.	Name of the student	Ph.D / M.Phil	University	Year of completion	Title of Research Topic
1	Harini S	Ph.D.	VTU, Belgaum	Pursuing	Intelligent System for Analysis of Indian Food Grains

### Academic Positions and other Responsibilities (University Level):

1. External Examiner for evaluation of PhD theses from Madurai Kamaraj University and Manonmaniam Sundaranar University
2. Examiners for M.Tech., Viva-voce- VTU
3. Examiner at PhD Comprehensive Viva- VTU

### Academic Positions and other Responsibilities (Institute Level):

1. **Coordinator**, T5 ,TW5( 2017-2018) ( 2018-2019)
2. **Coordinator**, Induction Program for First Year Students ( 2018-2019)
3. IQAC Member, BNMIT (2017-2018).
4. **Member**, Anti Ragging Squad, BNMIT (2017-2018).
5. **Editor** for News@Bhageerathi Periodical (2017-2018).
6. **Editor** for Book of Process(2016-2017).
7. **Deputy Chief Superintendent** Appointed as External DCS, RNSIT, 2013, VTU, Belgaum.
8. **Co-ordinator**, TATVA( 2015-2016)
9. Chief Timetable Coordinator ( 2013-2014)
10. VTU Coordinator ( 2001-2003)
11. **Coordinator**, NBA training workshop in-charge( 2014-2015)
12. **President of Lions Club**, Delegated various duties as the President of Lions Club of Bangalore, B.N.M.I.T. Campus.(2006-2007). Organized Blood Donation Camps, Peace Poster Competitions, coordinated the Workshop on Urban Waste Management and various charity services at local Govt. schools during this tenure
13. **In charge**, for all Institute multimedia 2001-2005
14. **In charge**, Photo Archiving(2001-2012)

### Awards/ Achievements/Memberships:

- Final year project titled “Computed Tomography Images: 2D to 3D reconstruction and Visualization”. Members: Namrata Pratap Simha, Vishwas Manohar, Sudarshan Suresh M. and Dheeraj D. Bhat, under my guidance was awarded the best project among the final year projects of ISE department 2016
- Awarded a letter of appreciation for scoring more than 90% in the self appraisal for the academic year 2013-14, on 5<sup>th</sup> September, 2015.

- Final year project batch under my guidance was selected for KSCST Student Project Programme 2014-15 and participated in KSCST Seminar (38<sup>th</sup> series) at Sahyadri College of Engineering & Mgt. , Mangalore(20-21<sup>st</sup> August2015), Title” Computed Tomography Images: 2D to 3D reconstruction and Visualization”. Members: Selvi Revathi, Deepthi S.M., Akila Nayak.
- Received certificate for participating in the RUSI Award Programme for the project “Medical Image Registration & Fusion using Contourlet Transform” by project group .( Aparna BV, Akshatha, Sathyasri Dinthi & Nupur Jain) – GUIDE, held on 2<sup>nd</sup> May 2015 at KASSIA by Rotary Bangalore Udyog.
- Both the Final year project batches under my guidance were selected for the third edition of JED-I, in which a total of 175 projects were registered from 20 states. Out of this only 66 were shortlisted for the finals. One of the batches with Sukriti Sharma, Apurva V.S and Vidya Meenakshi .K have won the Best Project Award in the computing division for the project “Traffic Density Estimation using SVM Classifier” at IISc which included a cash prize of Rs 75,000/-, 2013.
- Received the Certificate of Commendation from Karnataka State Council for Science & Technology, IISc, 1994-95.
- Received Merit Certificate in recognition of the high position secured in the list of meritorious candidates qualifying for awards from Govt. of Karnataka, National Scholarship Scheme, 1989.

#### **Professional Memberships:**

1. Life Member of ISTE (LM 47051)
2. Member of CSI

#### **Workshops /Seminars Organized:**

1. **Convener**, for one week FDP Program on Cloud Computing held at BNM Institute of Technology, Bengaluru during 10-16, July 2016.
2. **Organizing Chair**, for The Fifth International conference on signal and image processing held at BNM Institute of Technology, Bengaluru during 8-10, January 2014.

#### **Research Publications:**

##### **I. In National & International Journals**

##### **International Journals:**

1. Soumya Hundekar and Dr. Saritha Chakrasali, “**Detection and classification of breast cancer using support vector machine and artificial neural network using contourlet transform**”, ICTACT journal on image and video processing, February 2019, volume: 09, issue: 03, ISSN: 0976-9102 (online).
2. Soumya Hundekar and Dr. Saritha Chakrasali, “**An Identification of Breast Cancer Disease by Using ANN Using Contourlet Transform**”, IJSRD - International Journal for Scientific Research &amp; Development, Vol. 6, Issue 11, 2019 , ISSN (online): 2321-0613
3. Soumya Hundekar and Saritha Chakrasali, “**An observation and categorization of breast cancer utilizing support vector and artificial neural networks using discrete wavelet transform**”, ICTACT Journal on Soft Computing: Special Issue on Artificial intelligence

and deep learning, January 2019, volume 9, issue 2, ISSN: 2229-6956, DOI:10.21917/ijsc.2019.0257

4. Harini S, Dr Saritha Chakrasali, Dr Krishnamurthy G N, “**A Survey on Food Grain Identification Techniques**”, published in International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), ISSN(Online): 2319-8753, ISSN (Print): 2347-6710, Volume 7, Issue 6, June 2018, Page No. 6627-6633
5. Rajalakshmi K.R., Dr. Saritha Chakrasali, " **Detection of Diabetic Retinopathy using Wavelet Transform and SVM Classifier**", published in International Journal for Research in Applied Science and Engineering Technology (IJRASET), Volume 5, Issue V, May 2017, Page No. 666-670
6. Roopashree C.S., Dr. Saritha Chakrasali "**Image Storage Optimization using Deduplication**", published in International Journal of Scientific Engineering and Research (IJSER), Volume 5 Issue 5, May 2017, Page No. 57 – 58
7. Namrata Pratap Simha, Vishwas Manohar, Sudarshan Suresh M., Dheeraj D. Bhat, Dr. Saritha Chakrasali, “**Rule based Simple English Sentence Correction by Rearrangement of Words**”, published in International Journal of Scientific and Engineering Research(IJSER) Volume 7, Issue 6, June 2016 Edition . (ISSN 2229-5518), Page No. 7-9
8. Akshata M, Aparna BV, Sathyasri Donthi, Nupur Jain and Saritha Chakrasali, “**A Comparative study between Contourlet and Wavelet Transform for Medical Image Registration and Fusion**”, published in International Journal of Scientific and Engineering Research (IJSER) Volume 6, Issue 6, July2015. (ISSN 2229-5518), Page No. 891- 898.
9. Sukriti Sharma, Vidya Meenakshi.K, Apurva VS, Saritha Chakrasali, Shreyas Satish. “**Real-time Traffic Congestion Detection Using Combined SVM**”, published in International Journal of Scientific and Engineering Research(IJSER) Volume 4, Issue 11, November 2013 Edition. (ISSN 2229-5518), Page No. 207-213.

#### **In National/International Conference Proceedings**

#### **International Conferences Publications**

1. Manasa G., Prathusha J.S., Supriya Y.N., Dr. Saritha Chakrasali, “**Multimodal Biometrics- Feature Level Fusion of Face and Iris Biometrics**”, published in International Journal of Engineering Research and Technology (IJERT) Special Issue ICIOT - 2016 Conference Proceeding, August 2016 (ISSN: 2278-0181), Page No. 209-214
2. Saritha Chakrasali, Murugesan Ramachandran, “**A Contourlet Transform-based Versatile Watermarking Algorithm for Medical Images**”, published in Proceedings of International Conference on VLSI, Communication, Advanced Devices, Signals & Systems and Networking (VCASAN-2013), Lecture Notes in Electrical Engineering 258, DOI: 10.1007/978-81-322-1524-0\_33, Springer India, Page No.263, 2013.
3. Saritha Chakrasali, Sumathi Mahadevan, Raman Bhaskaran, Murugesan Ramachandran, Technical paper titled “**Secure Dual Watermarking in the Wavelet Domain for Teleradiology**”, published in

### **National Conference publications**

1. Ranjitha H S, Saritha Chakrasali, “**Real time Face Recognition System for biometric authentication using PCA**”, published in ISRASE eXplore Digital Library, NCETCSE-2016, BGSIT, Bangalore, 29th April 2016.
2. Sneha G, Saritha Chakrasali, “**Fingerprint watermarking approach using wavelet and alpha blending technique**”, published in ISRASE eXplore Digital Library, NCETCSE-2016, BGSIT, Bangalore, 29<sup>th</sup> April 2016
3. Akshata M, Aparna BV, Sathyasri Donthi, Nupur Jain, Saritha Chakrasali, “**Medical Image Registration and Fusion using Contourlet Transform**”, presented and abstract published in the proceedings of Indian Technology Congress – 2015, July 2015, Page 9.
4. Shashikala RP, Saritha Chakrasali, Aaquibnawaz, “**The novel algorithm of Cluster Formation and Trust computation for MANET’s**”, published in the proceedings of 8th National Conference on Recent Trends in Computer Science & Engineering (NCRTCS), Page No. 396, 2013.
5. Shashikala RP, Saritha Chakrasali, “**Requisite Trust-Based Secure Routing Protocol for MANETs**”, published in the proceedings of National Conference on Recent Trends in Communication and Networking, Page No. 277, 2013.
6. Saritha Chakrasali, Raman Bhaskaran, Murugesan Ramachandran, “**Watermarking of Color Echocardiograms using Dual Watermarking & Adaptive Thresholding**”, abstract in 53rd Congress of The Indian Society of Theoretical and Applied Mechanics, Page No. 102, 2008
7. Saritha Chakrasali, Raman Bhaskaran, Murugesan Ramachandran “**Wavelet Based Image Adaptive Dual watermarking for Teleradiology**”, , abstract in 52nd Congress of The Indian Society of Theoretical and Applied Mechanics, Page No. 104, 2007.

### **Invited Talks Delivered:**

1. Invited to conduct workshop on Basic & advanced algorithms by ACE Hackers at Wipro digital, Bangalore, September 16th and 23rd 2015.

### **Chairmanships at National/International Conference/Seminars:**

1. Chairperson of the Technical session in International conference on Fluid Dynamics and its Applications during 20-22<sup>nd</sup>, July 2011 at BNM Institute of Technology, Bangalore.

### **Participation in FDP/Training courses/Seminars/Workshops**

1. One week FDP on “Internet of Everything” at BNMIT , from 31<sup>st</sup> July – 5<sup>th</sup> August, 2017
2. One week FDP on “Artificial Intelligence and its Application” at BNMIT , from 9th-13th Jan, 2017
3. One day seminar on “Teachers as Catalysts for Change”, conducted by Heartfulness Institute at BNMIT , from 21<sup>st</sup> Jan, 2017
4. One week FDP on “Innovative Teaching Methods” at BNMIT , conducted by NITTTR, Govt. of India, Ministry of HRD, from 18th-23rd July, 2016
5. One week FDP on “Cloud Computing” at BNMIT from 11th-16th July, 2016

6. One week FDP on “Machine Learning” at BNMIT from 18th-23rd January, 2016
7. One week FDP on “IT Infrastructure Management Services” at BNMIT from 5<sup>th</sup>-9<sup>th</sup> January, 2015
8. One day workshop on Awareness Workshop on Outcome Based Education and Accreditation in collaboration with VTU at BMS College of Engineering on 21<sup>st</sup> July, 2015.
9. Two days workshop on Outcome Based Education and Accreditation at BMS College of Engineering, August 2<sup>nd</sup> to 3<sup>rd</sup>, 2015
10. Three days faculty development program at BNMIT, Bangalore, from July 18<sup>th</sup> to 20<sup>th</sup> 2012
11. Three days Academic Leadership Program for faculties of engineering colleges under VTU, between 2<sup>nd</sup> to 4<sup>th</sup> March, 2012 at PESIT campus, Bangalore
12. Completed Continuing Education Course on Intelligent Agents with Overall performance grade of A during August-December 2012 at IISc, Bangalore.
13. Two days as delegate in the NAAC sponsored National Seminar on “Outreach- A Catalyst towards Improved Educational Outcomes” on 28<sup>th</sup> & 29<sup>th</sup> September 2012, at Chettinad Academy of Research and Education, Chennai, Tamilnadu.
14. One day workshop on “Ph.D in Computer Science: A Perspective” held at IISc., Bangalore on July 2, 2010.
15. Completed Continuing Education Course on Cryptography and Network Security with Overall performance grade of S (outstanding) during January-May 2006 at IISc, Bangalore
16. Attended the NI Educator’s Day held at Leela Palace, Bangalore, on 24th November 2008
17. Faculty development program course at Keane International (India) Pvt. Ltd, Bangalore, between June 2<sup>nd</sup> to 13<sup>th</sup> 2008.
18. Three days course on Essentials Of functional Testing with ibm Rational Robot held at RVCE, Bangalore, from 26-06-2006 to 28-06-2006.
19. One week course on Instructional Design and Delivery held at BNMIT, Bangalore, from 09-08-2004 to 14-08-2004.
20. Two days workshop on Wireless Internet conducted by IWIN at IISc, Bangalore, from 26-04-2002 to 27-04-2002.
21. Fifteen days curriculum Development workshop on e-Business at iiitb, Bangalore, from 01-04-2002 to 15-04-2002.
22. Course on OOPS and C++ from Tata Infotech Education in April-May, 2001
23. Web Designing course from WINTECH Computers in October, 2000.
24. Completed Entrepreneurship Development Programme during April-May 1996 at SJCE-STEP, Mysore

**Personal Details:**

- **Date of Birth:** 28-04-1973
- **Sex:** Female.
- **Family Details:** **Husband : Mr Anand R K**  
**Son : Mr. Shreyas Anand**  
**Daughter : Ms. Rameshwari Anand**

11<sup>th</sup> August 2018

Dr. Saritha Chakrasali