

# G R Sinha, *PhD*

Adjunct Professor, International Institute of Information Technology (IIIT) Bangalore, India  
*Deputed* as Professor at Myanmar Institute of Information Technology (MIIT) Mandalay,  
Myanmar

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**Skype ID:** drgrsinha

**Date of Birth:** 4<sup>th</sup> March, 1975



## Education

Chhattisgarh Swami Vivekanand Technical University Bhilai, India

- **Ph.D.** in Electronics and Telecommunication Engineering on “Design and Implementation of Image Enhancement Techniques in Frequency Domain” (2010)  
Indexed under Ph.D. Theses (002716) of Engineering in Indian Science Abstracts, 48 (03), February 2012, ISSN: 0019-6339, p. 57.

National Institute of Technology, Raipur (Formerly, Govt. Engineering College)

- B.E. (Electronics Engineering): **71.48% (1998)**
- M. Tech. in Elect. (Specialization in Computer Technology): **78.39 % ( Gold Medalist) (2004)**

M. P. Board of Education, Bhopal (Government R K Higher Secondary School Pithora, Chhattisgarh)

- 10<sup>th</sup>(HSC): **80% (1991)**
- 12<sup>th</sup>(HSSC): **77% (1993)**

## Ph.D. Thesis:

**Design and Implementation of Image Enhancement Techniques in Frequency Domain.**  
Indexed under Ph.D. Theses (002716) of Engineering in Indian Science Abstracts, 48 (03), February 2012, ISSN: 0019-6339, p. 57.

**M. Tech. Thesis:** Face Recognition using Iterative Function System.

## Research Areas

- Image Processing and Computer Vision
- Cognitive Science and Biomedical Image Processing
- Outcome based Education (OBE) and ICT based Employability Skills

## Teaching Interest

- Network Analysis, Basic Electronics, Digital Electronics and Analog Electronics, Sensors
- Analog and Digital Communication System
- Signal Processing, Digital Signal/Image Processing

## Publications

Publications	National	International	Total
Journals	49	76	125
Conferences (Papers, Abstracts)	63	51	114
Books/Book Chapters			21
<b>Total Publications</b>			<b>260</b>

## Teaching/Industrial Experience

- **Adjunct Professor** at International Institute of Information Technology (IIIT) Bangalore since 3<sup>rd</sup> November 2017, deputed as **Professor** at Myanmar Institute of Information Technology (MIIT) Mandalay.
- **Professor** (Electronics and Communication Engineering) and **Dean (IQAC)** in CMR Technical Campus, Hyderabad, since 1<sup>st</sup> December 2016 (Assignment of Dean since 8<sup>th</sup> August 2017).
- **Professor** (Electronics & Telecommunication Engineering) and **Principal** in Shri Shankaracharya Engineering College, Bhilai 1<sup>st</sup> July 2016 to 17<sup>th</sup> October 2016.
- **Professor** (Electronics & Telecommunication Engineering) and **Associate Director** of Faculty of Engineering and Technology in Shri Shankaracharya Group of Institutions (Formerly Shri Shankaracharya College of Engineering & Technology, Bhilai) from 26<sup>th</sup> September, 2011 to 4<sup>th</sup> July 2016.
- **Professor** (Electronics and Telecommunication Engineering) & **Head** (Information Technology) in Shri Shankaracharya College of Engineering and Technology from **18<sup>th</sup> May 2007** to 25<sup>th</sup> September, 2011.
- **Associate Professor and Head** (Electronics and Telecommunication Engineering) in Chhattisgarh Institute of Technology, Rajnandgaon from 13<sup>th</sup> August 2005 to 17<sup>th</sup> May 2007.
- **Reader/Lecturer** (Electronics and Telecommunication Engineering) in Rungta College of Engineering and Technology, Bhilai from 21<sup>st</sup> June 2000 to 12<sup>th</sup> August 2005.
- **Lecturer** (Electronics Engineering) in Government Engineering College Raipur from July 1999 to 20<sup>th</sup> May 2000.
- Software Engineer in CADsoft Technologies from 26<sup>th</sup> July 1998 to 28<sup>th</sup> June 1999.

## Citation/URL:

Google Scholar: <https://scholar.google.co.in/citations?user=4L66jAsAAAAJ&hl=en>

Research Gate: [https://www.researchgate.net/profile/Professor\\_G\\_Sinha](https://www.researchgate.net/profile/Professor_G_Sinha)

ACM: [https://speakers.acm.org/speakers/sinha\\_8583](https://speakers.acm.org/speakers/sinha_8583)

MIIT: <https://www.miit.edu.mm/people/ganesh-r-sinha>

YouTube Channel: (Dr G R Sinha: Conceptualizing and Motivating):

<https://www.youtube.com/channel/UC38Sanv2OmQXZX0hhWq1QfA>

## Awards/Honors

1. **Visiting Professor (Honorary) in Sri Lanka** Technological Campus Colombo Sri Lanka for 2019-2020.
2. **Distinguished Speaker by ACM** (Association for Computing Machinery) for Next 03 Years (2017-2020), in the field of Digital Signal Processing.
3. **Senate Member**, Myanmar Institute of Information Technology (MIIT), Mandalay.
4. **Elected** Chhattisgarh Representative of **IEEE** MP Sub-Section **Executive Council** 2017 and **Executive Council** 2016.
5. **TCS Award 2014** for Outstanding Performance and Lasting Contribution to TCS Campus Commune by Tata Consultancy Services during annual event of TCS (Sparsh) at Hotel Leela Mumbai, 30 June-01 July 2014.
6. **Rajaram Bapu Patil National Award** for Promising Engineering Teacher for Creative Work done in Technical Education by Indian Society for Technical Education (ISTE) New Delhi during 43<sup>rd</sup> Annual National Convention at Warananagar, Kolhapur on 19<sup>th</sup> December, 2013.
7. **Emerging Chhattisgarh Award 2013: Best Academician** by Think Media Ltd. New Delhi, India on 18<sup>th</sup> August 2013.
8. **Elevated to Senior Grade Membership by IEEE.**
9. Conferred upon **“Engineer of the Year 2011 Award”** presented by **Honorable Then His Excellency Governor** of Chhattisgarh State Shri Shekhar Dutt on 15<sup>th</sup> September 2011 Engineers Day.
10. Awarded as **“Young Engineer of the Year 2008 Award”** by Institution of Engineers India at Ranchi during **National Convention of Electronics & Telecommunication Engineering** (18-19 October 2008).
11. **Awarded as Chhattisgarh Young Scientist 2005** for “Frequency Domain Image Enhancement Technique for Biometric Scientists” by **C.G. Council of Science & Technology, India.**
12. **Nominated for ISCA Indian Young Scientist Award 2006 for** paper presentation on “Modified Histogram approach of Image enhancement for Radiologists & forensic experts”.
13. **Awarded as Expert Engineer Award 2007** by Institution of Engineers (India), BLC Bhilai.
14. **Awarded GOLD MEDAL for FIRST position** in merit of **M.Tech. (Comp.Tech.)** in Pt.R.S.U. Raipur, India.
15. **Best Paper Award for** presenting research paper on “Efficient Detection of suspected areas in Mammographic Breast Cancer images”, in i-manager’s International Conference on Engineering and Technology (IICET-2015), 10-11 April, 2015, Trivandrum.
16. **Has been Executive Council Member of Chhattisgarh Swami Vivekanand Technical University, Bhilai from 2012 to 2014.**

17. **Dean of Faculty of 04 Disciplines** (Electronics and Telecommunication Engg., Electronics & Instrumentation Engg., Electrical Engg. and Electrical & Electronics Engg.) in Chhattisgarh Swami Vivekanand Technical University, Bilai.
18. **Awarded Deshbandhu Merit Scholarship** for 05 years.
19. **Honored by BMC, Bilai, India on teacher's day 05.09.2010.**
20. **First prize** in "Image Recognition using Contractive Transformation Method", National Level Technical Paper contest & Seminar (Technologia, 2004), Bilai.

### Invited Talks/Keynote Talks/Session Chairs/Special Sessions

1. **Invited Talk** on "Advances in Cognitive Science Research", International Conclave on Recent Advances in Computer Science, 25<sup>th</sup> September 2020, Anurag University, Hyderabad, India.
2. **Invited Talk** on "Current Trends in Cognitive Science and Brain Computing", IEEE Student Branch AcSIR-CSIO, **Central Scientific Instruments Organization** Chandigarh, India, IEEE Virtual Symposia 2020, 18<sup>th</sup> June, 2020. *In addition to this, 14 Invited Lectures on this topic delivering in different research and academic organizations during Covid-19 period.*
3. **Keynote Lecture** on "Image Processing Tools for Improved Visualization and Analysis of Remotely Sensed Images for Agriculture and Forest Classifications" International Conference Geo-Myanmar 2020, IGCP 668 & IGCP 679 organized by Myanmar Geosciences Society, 7<sup>th</sup> January 2020, Yangon, Myanmar.
4. **Invited Lectures** on "Medical Image Processing", "Writing Research Grant Proposals and Books" and "OBE-Mapping Learning Outcomes with Student Learning Objectives" at Sri Lanka Technological Campus **Colombo**.
5. **"ACM Distinguished Speaker"** Lecture on "Developing Employability Skills using ICT Tools" at Alpha Arts & Science College, organized by ACM Women's Chapter (ACM-W) Chennai, October 22, 2019.
6. **"ACM Distinguished Speaker"** Lecture on "Image Processing Tools for Agriculture and Forest Applications" & "Mapping Learning Outcomes with Learning Objectives in OBE framework" at University of Computer Studies Magway, Myanmar, July 29-30, 2019.
7. **"ACM Distinguished Speaker"** Lecture on "Image Processing Tools for Agriculture and Forest Applications" at BMS College of Engineering Bangalore, April 26, 2019, Bangalore.
8. **"ACM Distinguished Speaker"** Lecture on "Developing Employability Skills using ICT Tools" at Indian Institute of Information Technology (IIIT) Nagpur, April 24, 2019, Nagpur.
9. **"ACM Distinguished Speaker"** Lectures on "CAD based system for Medical Image Processing and Health Informatics" and "Image Processing Tools for Agriculture and

Forest Applications”, at MN National Institute of Technology, Allahabad (Prayag Raj), April 14-15, 2019, Allahabad.

10. **“ACM Distinguished Speaker”** Lecture on “Study of Cognitive Ability of Human Brain”, at University of Computer Studies Yangon Myanmar during International Conference on Computer Applications (ICCA-2019), February 27-28, 2019, Myanmar.
11. **Invited Talk** on “Study of Cognitive ability of Human brain” in International Conference on Emerging Technologies in Computer Engineering, February 1-2, 2019, Jaipur (Skype)
12. **“ACM Distinguished Speaker”** Lectures on “Development of Employability Skills using ICT tools” & “Assessment of Cognitive Ability of Human Brain” at Vidyavardhaka College of Engineering Mysore on 23<sup>rd</sup> & 24<sup>th</sup> October 2018 respectively (Nominated by ACM New York).
13. **“ACM Distinguished Speaker”** Lecture on “Development of Employability Skills using ICT tools”, at Saint Xavier’s Catholic College of Engineering Nagercoil 10<sup>th</sup> September 2018 (Nominated by ACM New York).
14. **“ACM Distinguished Speaker”** Lecture on “Assessment of Cognitive Ability of Human Brain” at KS Rangasamy College of Arts & Science Tiruchengode India on 20<sup>th</sup> July 2018 (Nominated by ACM New York).
15. **Invited Talk** on “Learning Research based Skill for Academic Excellence; Learning Outcome Assessment & Developing Employability Skills” to students and faculty member (separately) of Technological University Meiktila, Myanmar on 4<sup>th</sup> & 5<sup>th</sup> August 2018.
16. **Invited Talk** on “Research based Skill towards Academic Excellence” to the faculty members of Computer University Mandalay, **Myanmar** on 7<sup>th</sup> June 2018.
17. **Special Session** on “Deep Learning in Biometrics”, 2017 **Fourth International Conference on Image Information Processing (ICIIP2017)** , December 21 23, 2017, **IEEE Conference** Record Number #41247, Shimla, India.
18. **Invited Talk** on “Writing Research Projects in Computer Vision and Image Processing Fields”, in One Week Faculty Development Programme in association with **IEEE Student Branch** on Computer Vision and Image Processing (CVIP-2017), 24<sup>th</sup>-30<sup>th</sup> June 2017, CMRTC Hyderabad, India.
19. **Invited Talks** on “Deep Learning and its Applications in Image Processing” & “Fundamentals of Image Processing”, in One Week Faculty Development Programme in association with **IEEE Student Branch** on Computer Vision and Image Processing (CVIP-2017), 24<sup>th</sup>-30<sup>th</sup> June 2017, CMRTC Hyderabad, India.
20. **Invited Lecture** on “Image Processing Techniques, Analytics and Applications”, organized by National Remote Sensing Centre (NRSC) Hyderabad, Government of India; followed by Technical Discussion with team of Scientists of Data Processing and Analysis of NRSC, on 7<sup>th</sup> February, 2017.

21. **Invited Talk on** “Image Processing Tools and Analytics for Remote Sensing and Astronomical Applications”, National Conference on Signal Processing, Sustainable Energy Material and Astronomy & Astrophysics, 30<sup>th</sup> April 2017, Raipur, India.
22. **Keynote Talk** on “Research Challenges in Digital Image Processing” in DST Sponsored National Conference on Computer Security; Image Processing, Graphics, Mobility and Analytics, CMR Technical Campus Hyderabad, 17-18 December, 2016.
23. **Plenary Talk** on “Medical Image Processing and CAD” in UGC Sponsored National Workshop on Natural Language Processing and Image Processing, School of Computer Sciences, North Maharashtra University Jalgaon, 21-23 January 2016.
24. **Plenary Talk** on “Biometrics: Research Scope” in UGC Sponsored National Workshop on Natural Language Processing and Image Processing, School of Computer Sciences, North Maharashtra University Jalgaon, 21-23 January 2016.
25. Selected as **Distinguished Speaker** by **Computer Society of India** for Region-04 in India in the area of Digital Image Processing, Biometrics, Medical Imaging and Computer Vision, 2015.
26. **Keynote Speech** on “CAD based Medical Image Processing: Emphasis to Breast Cancer Detection” i-manager’s International Conference on Engineering and Technology (IICET-2015), 10-11 April, 2015, Trivandrum.
27. **Session Chair** in i-manager’s International Conference on Engineering and Technology (IICET-2015), 10-11 April, 2015, Trivandrum.
28. **Keynote Speech** on “Digital Image Processing Integrated with VLSI Technology”, IEEE Student Chapter of SSTC, 12 October, 2015, Bhilai.
29. **Keynote Speech** on “CAD and Biometrics”, in International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2014), 24-25 February, 2014, MRIET Hyderabad.
30. **Invited Lecture** on “Overview of Biometrics and CAD based Medical Image Processing”, in IETE (Institute of Electronics and Telecommunication Engineers) Sub Centre, 10<sup>th</sup> February, 2014, Jawahar Lal National College of Engineering Shimoga (Karnataka).
31. **Invited Lecture (Session)** on “Image Enhancement and Segmentation” in National seminar on “Engineering Applications of MATLAB”, 8-9 January, 2014, College of Engineering and Management, Kolaghat (West Bengal).
32. **Invited Lecture (Session)** on “Medical Image Processing” in One week Short term Training Programme on “Medical Image Processing using MATLAB”, 26-30 December, 2013, National Institute of Technology Raipur.
33. **Keynote Speech** on “Emerging trends in Digital Image Processing”, National Conference, Technologia-13, 15<sup>th</sup> November, 2013, Christian College of Engineering Bhilai.
34. **Invited Talk on** “Computer-aided-diagnosis (CAD) system: An interface between Engineering and Medical science”, in National seminar on “Bridging the gap between

Medical and Engineering science”, during 15-16 June, 2013 in College of Engineering and Management, **Kolaghat** (West Bengal).

35. **Invited Talk** on “Research Scope and Current Trends in Biometrics and CAD”, **IETE** sponsored National Conference on mega trends in engineering, 15-16 August, 2013, **Bhopal**, India.
36. **Invited Talk** published on “**Biometrics: Concepts and Challenges**”, in National Conference on Advances in Computing, March 05-06, 2012, **Jalgaon, India**.
37. **Invited Lecture Series** in Workshop on Digital Image Processing, nominated by **Computer Society of India**, at Hyderabad during 25-26 February, 2013.
38. **Keynote Talk** on “Early Detection of Breast Cancer” in **SPIE** sponsored International Conference on Machine Vision (ICMV-2011), December 9-10, 2011, **Singapore**.
39. **Speaker for IEEE National Distinguished Lecturer Program (NDLP) in BOMBAY IEEE Section**.
40. **Keynote talk and inaugural address** on “Vehicle License Plate Recognition using bilateral approach” in **Springer** sponsored International Joint Conference on Advances in Information Technology and Mobile Communication, AIM 2011 and Power Electronics and Instrumentation Engineering, PEIE 2011, April 21-22, 2011, Nagpur, India.
41. **Session Chair in Three Technical Sessions** in **Springer** sponsored International Joint Conference on Advances in Information Technology and Mobile Communication, AIM 2011 and Power Electronics and Instrumentation Engineering, PEIE 2011, April 21-22, 2011, Nagpur, India.
42. **Session Chair in Two Technical Sessions** in 3<sup>rd</sup> International Conference on Machine Learning and Computing (ICMLC 2011), February 26-28, 2011, **SINGAPORE**, jointly organized by IACSIT and **IEEE USA**.
43. **Invited talk** on “Digital image enhancement towards meeting the challenges of biometric Systems”, **International Workshop** on Large scale implementation of biometric systems (L-BIMS-11), 20-21 January, 2011, jointly organized by **IIT Gandhinagar India and C-DAC Mumbai, India**.
44. **Keynote speech** on “Research avenues in Digital Image Processing”, **All India Conference** at CSIT Durg, Chhattisgarh, India, 29-30 January, 2010.
45. **Keynote speech** on “Development of Employability Skills through Problem based Learning”, MP Christian College of Engineering and Technology, Bhilai, Chhattisgarh, India, 29 September, 2010.
46. **Keynote Speech** on “Scope and Motivation for Research in Digital Image Processing” Technolgia-2012, National Conference at MPCCET, 1<sup>st</sup> March 2012.
47. **Keynote Speech** on “Scope of Research in Biomteric Systems” Technolgia-2012, National Conference at MPCCET, 2<sup>nd</sup> March 2012.

48. **Invited Talk** on “Human values transforming the mankind and society”, National workshop on value education, 26-27 July, 2013, CSVTU Bhilai, India.

### **Books Published**

1. **Biometrics: Concepts and Applications**, ISBN: 978-81-265-3865-2, published by **Wiley India Publications, a subsidiary of John Wiley, March, 2013**.
2. **Medical Image Processing: Concepts and Applications**, ISBN: 978-81-203-4902-5, **Prentice Hall of India**.
3. Design and Implementation of Dynamic Source Routing Protocol: A guide for beginners engaged in teaching, learning and research related to Mobile Ad-hoc Network and Protocol, LAP Lambert Academic Publishing Germany, ISBN: 978-3-8484-9842-0, **ACM Digital Library**.
4. PCG Signal Denoising and analysis using Wavelet Transform: A practical approach to PCG analysis and automated diagnosis, LAP Lambert Academic Publishing Germany, ISBN: 978-3-8484-8321-1.
5. “Plenary Lecture 2: Computer Aided Diagnosis System for Early Detection of Breast Cancer”, Recent Advances in Computer Engineering Series, a book published by WSEAS Press, ISSN: 1790-5109, ISBN: 978-1-61804-092-3.
6. Practical approach to Frequency Domain Image enhancement methods: Quality assessment of digital images, LAP Lambert Academic Publishing Germany, ISBN: 36591170070.

### **Edited Books**

1. Varun Bajaj and G. R. Sinha, “Modelling and Analysis of Active Bio-potential Signals in Healthcare”, Volume 1, IOP Publishing, August 2020, <https://iopscience.iop.org/book/978-0-7503-3279-8>.
2. G. R. Sinha & J. Suri, “Cognitive Informatics, Computer Modelling and Cognitive Science, Volume 1: Theory, Case Studies and Applications”, Elsevier, 2020, <https://www.elsevier.com/books/cognitive-informatics-computer-modelling-and-cognitive-science/sinha/978-0-12-819443-0>.
3. G.R.Sinha & J. Suri, “Cognitive Informatics, Computer Modelling and Cognitive Science, Volume 2: Applications to Neural Engineering, Robotics and STEM”, Elsevier, 2020, <https://www.elsevier.com/books/cognitive-informatics-computer-modelling-and-cognitive-science/sinha/978-0-12-819445-4>.
4. G. R. Sinha (Ed.). (2021). Assessment Tools for Mapping Learning Outcomes with Learning Objectives. IGI Global. <http://doi:10.4018/978-1-7998-4784-7>.
5. G.R. Sinha, “Modern Optimization Methods for Science, Engineering and Technology”, Copyright © IOP Publishing Ltd 2020, Online ISBN: 978-0-7503-2404-5, Print ISBN: 978-0-7503-2402-1. <https://iopscience.iop.org/book/978-0-7503-2404-5>.
6. G. R. Sinha, “Advances in Biometrics- Modern Methods and Implementation Strategies”, Springer Nature, 2019, ISBN 978-3-030-30436-2, <https://www.springer.com/gp/book/9783030304355>.



7. G. R. Sinha, "Advances in Modern Sensors-Physics, Design, Simulation and Applications", IOP Publishing, <https://blackwells.co.uk/bookshop/product/Advances-in-Modern-Sensors-by-G-R-Sinha-editor/9780750327053> (Ongoing).
8. Tin Thein Thwel & G. R. Sinha, "Data Deduplication Methods", Elsevier (Ongoing).
9. Varun Bajaj and G. R. Sinha, "Modelling and Analysis of Active Bio-potential Signals in Healthcare", Volume 2, IOP Publishing (Ongoing).
10. Mridu Sahu and G.R.Sinha, "Brain and Behavior Computing", CRC Press, Taylor & Francis Group (Ongoing).

### **Ph.D. Supervision**

Ph.D. Scholars (**AWARDED**): 08

1. Noise removal of Medical images using Wavelet transforms and its Performance evaluation, Devanand Bhonsle (Electronics and Telecommunication Engineering), Chhattisgarh Swami Vivekanand Technical University Bhilai, April 2019.
2. Performance Analysis of Space Time Coded Multiple Antenna System over Fading Channel, Hemalata Sinha (Electronics and Telecommunication Engineering), Chhattisgarh Swami Vivekanand Technical University Bhilai, December 2018.
3. Reliable CAD system for Lung Cancer Detection using Neuro-Fuzzy Method, Rakesh Khare (Computer Science and Engineering), CV Raman University Bilaspur, December 2018.
4. Mass Segmentation and Feature extraction of Mammographic breast images in Computer-aided Diagnosis, Bhagwati Charan Patel (Information Technology), Chhattisgarh Swami Vivekanand Technical University Bhilai, November 2018.
5. System level behavioral modeling and post simulation of Built-in-self Test of Sigma-delta modulator Analog to Digital converter, Anil Sahu (Electronics and Telecommunication Engineering), Chhattisgarh Swami Vivekanand Technical University Bhilai, December 2018.
6. Development and Analysis of Multi Modal Biometric System, Snehlata Barde (Computer Science and Engineering), CV Raman University Bilaspur, June 2015.
7. An Efficient hybrid denoising technique of Medical images using neural network and Fuzzy logic, Abha Choubey (Computer Science and Engineering), MATS University Raipur, April 2015.
8. An efficient hybrid model for License Plate Recognition using muti layer feed forward neural network and Fuzzy logic, Siddartha Choubey (Computer Science and Engineering), MATS University Raipur, March 2015.

Ph.D. Candidates (**REGISTERED**): 01

1. Efficient Assessment of Cognitive Ability using Machine Learning and AI, Samrudhi Mohdiwale, National Institute of Technology Raipur.

## Projects and Consultancy

1. Received **36.6 Lakhs** (INR) for “Assessment of R&D Impact on Socio-Economic Status of Rural India”, under **NSTMIS Division of DST India** (Ongoing).
2. Received Travel Grant of around 2000 USD by ACM New York for travelling to Paris for delivering “ACM Distinguished Speaker” Lectures in Yangon, Allahabad, Nagpur and Bangalore, 2019.
3. Approved Travel Grant of 1600 USD by ACM New York for travelling to Paris for delivering “ACM Distinguished Speaker” Lecture in Internal Conference on Plant Sciences.
4. Approved Travel Grant of 800 USD by ACM New York for travelling to Sanya, China for delivering “ACM Distinguished Speaker” Lecture in Internal Conference on Signal and Image Processing, 28-30 November 2018 (could not utilize).
5. Received Travel Grant of 600 USD by ACM New York for travelling to Mysore for delivering “ACM Distinguished Speaker” Lectures in International Colloquium and inaugurating ACM chapter as chief guest.
6. Received Travel Grant of 900 USD by ACM New York for travelling to Bhilai for delivering “ACM Distinguished Speaker” Lecture.
7. Received Travel Support of 900 USD by ACM New York for travelling to Tiruchengode and delivering “ACM Distinguished Speaker” Lecture.
8. Received Travel Support of 1000 USD by ACM New York for travelling to Nagarcoil and delivering “ACM Distinguished Speaker” Lecture.
9. Appointed as an Expert Member in “Center of Excellence” by Tata Institute of Social Sciences (TISS\_SVE) Mumbai for Two Years (2017-2019).
10. Evaluator of Extra-Mural Research Funding of Science and Engineering Research Board of Department of Science and Technology, Government of India.
11. Consultant of National Skill Development Corporation, Govt. of India, for biometric operator with Wiley India.
12. Team Leader, “My Mission City without Crime: E-cops”, 2011 Projects, All India Young Engineers’ Humanitarian Challenge 2011, an IEEE Bangalore section initiative.
13. Coordinator for EAC camp (Entrepreneurship Awareness Camp) by Department of Science and Technology, India.
14. Coordinator and Convener of “Sensitization Program on Copyright Protection Rights” by MSME, Government of India.

## Research Experience

1. **Associate Editor** of IEEE Access-The Multidisciplinary Open Access Journal.
2. **Associate Editor** of IET Electronics Letters for three years (2020-2023) (an SCI journal of IET UK)
3. **Associate Editor** of IET Image Processing for three years (2020-2023) (an SCI journal of IET UK)
4. **Guest Editor** of Special Issue of IET Electronics Letters on “Current Trends in Cognitive Science & Brain Computing Research, and Applications”.

5. Reviewer of **IEEE Transactions** on Image Processing, USA; **Elsevier** Computer Methods and Programs in Biomedicine; **Elsevier** Computers in Biology and Medicine; Neural Computing and Applications and Arabian Journal of Science and Engineering (**Springer**); Reviewer of Journal of Medical Imaging and Health Informatics (**SCI Journal**).
6. **International Advisory Committee** Member in International Conference on Information Systems and Management Science (ISMS 2018), **University of Malta**, Valletta.
7. **Editor-in-Chief** of Journal of Pattern Recognition, i-manager Publications; Editorial Board Member of IETI Transactions on Computers, **Hong Kong**; Reviewer of **Journal of Electronic Imaging**, **SPIE** (International society for optics and photonics); **ICTACT Journal on Image and Video Processing**; **Applied Physics Research**, **Canada**; Network Protocols and Algorithms, United States; Journal of Institute of Engineers-Series B, **Springer**; Journal of **Computing of Computer Society of India**.
8. **Program Committee Member**, **National Advisory Board Member** and Reviewer of **more than 50** International/National Conferences.

#### Membership of Professional Bodies

1. **IEEE** (Institute of Electrical and Electronics Engineers), USA (**Senior Member** 91102154).
2. **Life Fellow** of Institute of Electronics & Telecommunication Engineers, New Delhi, India (F144461).
3. **Life Fellow** of Institute of Engineers, India (F-1263087).
4. Association for Computing Machinery (**ACM**)-2058723
5. **Life Member** of Indian Society of Technical Education, India (LM43621).
6. **Life member** of Computer Society of India (00154166 & 00134757).
7. **Life Member** of Indian Science Congress Association, India (L22687).
8. International Association of Engineers, Hong Kong (123495).
9. Singapore Institute of Electronics, Singapore.
10. International Association of Computer Science and Information Technology (IACSIT), Singapore.

#### M. Tech. Theses Guided

1. "Biomteric Template Protection", M.M.Ashish, Chhattisgarh Swami Vivekanand Technical University, Bilai, India (2016).
2. "SNR and BER analysis for Multiple Antenna system using OFDM", Gulshan Jaiswal, Chhattisgarh Swami Vivekanand Technical University, Bilai, India (2016).
3. "Reversible Steganography using Reference pixel Choosing and CDD model based Image Impainting", Narendra Sharma, Chhattisgarh Swami Vivekanand Technical University, Bilai, India (2016).
4. "Image De-Noising Method using VHDL", Amit Ranjan Sinha, Chhattisgarh Swami Vivekanand Technical University, Bilai, India (2016).
5. "Image Segmentation using Mamdani Fuzzy based System", Shalini Agrawal, Chhattisgarh Swami Vivekanand Technical University, Bilai, India (2015).

6. "Modified Fuzzy based Decision algorithm for Image Denoising", Neha Agrawal, Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2015).
7. "Automated Multispectral Satellite Image Denoising using Decomposable Pixel Filtration Algorithm (DPFA) and Bi-directional Recurrent Neural Network (BRNN)", Pragati Jha, Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2015).
8. "A New approach for Image Denoising with Fuzzy Filtering Technique", Mansi Pathak, Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2015).
9. "Efficient Fractal Image Encoding using Distributed Architecture and SIMD Approach", Akhilesh Kumar, Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2015).
10. "Performance analysis of DWT based image watermarking techniques", Asma Ahamad, (Communication), Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2014).
11. "Implementation of Efficient Segmentation methods for tumor detection in MRI images", Kailash Sinha, (Communication), Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2013).
12. "Implementation of Modified DWT and LSB Techniques for Image Watermarking", Nikita Kashyap, M.E. (Communication), Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2012).
13. "Intrusion Detection system for wireless networks using Feature Vectorisation technique", Jaya Mishra, M.E. (Communication), Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2009).
14. "Fingerprint Verification System", Bhawna Shukla, (Communication), Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2008).
15. "Face recognition using Eigen Face Method", Laxmi Patel, Chhattisgarh Swami Vivekanand Technical University, Bhilai, India (2006).

### Professional Experience

1. "ACM Distinguished Speaker" by ACM New York in the field of DSP for three years (2017-2020)
2. Expert Member in "Center of Excellence" by Tata Institute of Social Sciences (TISS-SVE) Mumbai for Two Years (2017-2019).
3. Member of Senate, Myanmar Institute of Information Technology (MIIT), Mandalay.
4. Member of Board of Studies in Electronics and Communication Engineering of CMR College of Engineering and Technology (Autonomous, NAAC-A Grade Institute) Hyderabad, India.
5. Examiner of more than 15 Ph.D. Theses of 6 different universities.
6. Attended One Week Faculty Development Programme in association with IEEE Student Branch on Computer Vision and Image Processing (CVIP-2017), 24<sup>th</sup>-30<sup>th</sup> June 2017, CMRTC Hyderabad, India.
7. Attended One Week Faculty Development Programme in association with IEEE Student Branch on Cross Validation, PCA, SVM, ROC, Matching Results, Wavelet Research Focus, 7<sup>th</sup>-13<sup>th</sup> May 2017, CMRTC Hyderabad, India.

8. **Resource Person in Refresher course** on Electronic Communications, organized by Department of Electronics & Communication Engineering of CMR Engineering College Hyderabad India in association with The **Institution of Electronics and Telecommunication Engineers (IETE)**, India, 3rd July – 8th July, 2017.
9. **Resource Person in One Week Short Term Training Programme** on Communication and Signal Processing (Delivered Project based Problems in Digital Image Processing), January 3-7, 2017.
10. Ph.D. Proposal Examiner of Satya Sai Institute of Higher Learning (Deemed University) in the School of Computer Sciences, Puttaparthi, India, 2016.
11. Expert Member in evaluation of Sir C V Raman Promising Young Research of the Year 2016.
12. Has been Reviewer of Syllabus of Computer Vision of PG Courses of MIT Academy of Engineering, Pune, 2016.
13. Attended IEEE Workshop on Technical Paper Presentation as **Guest of Honor** on 29.11.2014 organized by IEEE Student Chapter Bhilai, India.
14. Nominated as **Committee Member** of Student Welfare Committee of Chhattisgarh Swami Vivekanand Technical University Bhilai.
15. Attended Workshop on Advanced Instrumentation System using LAB-View during 08-13 October 2014, conducted by Trident Techlabs Pvt. Ltd. at Bhilai, India.
16. Attended FDP on “Big Data” organized by TCS at SSTC Bhilai, February 17, 2014.
17. Nominated as **Committee Member** of Search/Scrutiny Committee for selection of Senior Technical Advisor at Chhattisgarh Swami Vivekanand Technical University Bhilai, June, 2014
18. **Appointed as Expert member** of selection Committee for the post of Assistant Professor (Computer Science and Applications) by Bilaspur University, India, May, 2014.
19. Nominated as **Member of Research and Recognition Committee** for FIVE years from October, 2013 for Admission to Ph.D. Programme of Computer Science and Engineering in **North Maharashtra University, Jalgaon, India.**
20. Attended Building Partnership Workshop by **Fulbright Commission** during 11-12 April 2013 at Ahmedabad.
21. **Appointed as Expert member of Government Selection Committee** for the post of Professor (Computer Science) by RTM University Nagpur, India, 2013 (June).
22. **Elected as Vice-Chairman** for 2011-2012 and 2012-2013 of Computer Society of India, Bhilai Chapter.
23. **Nominated as Co-Convenor** of Major Syllabi Revision of 3<sup>rd</sup> to 8<sup>th</sup> Semesters of Electronics and Telecommunication Engineering, Electronics and Instrumentation Engineering; and Electrical and Electronics Engineering of **Chhattisgarh Swami Vivekanand Technical University, Bhilai, India.**
24. **Appointed as Expert member of Government Selection Committee** for the post of Professors and Associate Professors by North Maharashtra University Jalgaon, India, 2012 (July, December).
25. Attended one-day Workshop on “Intellectual Property Right” organized by MSME Raipur at Bhilai, 17<sup>th</sup> March 2012.
26. Attended Workshop on “Redefining Technical education in context of Global, National and Local needs”, July 2-3, 2011, CSVTU Bhilai.

27. Attended annual event of Infosys “Insight” at Infosys development Centre Bhubaneswar, March 30-31, 2009.
28. **Member of Faculty** of the University for **University Advisory Board** of National Service Scheme of Chhattisgarh Swami Vivekanand Technical University, Bhilai, India.
29. **Member of the Panel for Finalization the Claims/Objections of The Seniority List of Directors/Principals/Professors/Readers/Lecturers** of Chhattisgarh Swami Vivekanand Technical University, Bhilai, India.
30. Conducted Teachers’ Training Programme.
31. **Coordinated and Organized** Nexus-Techfest workshop in association with **IIT Mumbai, India continuously for two years.**
32. Organized a Nexus-Workshop in SSCET in association with **IIT Mumbai, India 2009.**
33. Organized a National Level Seminar **“Technovision-2007” in SSCET Bhilai, India.**
34. Attended National Conference on **Technical Vocational Training & Skill Development: A Roadmap for Empowerment, 17-18 December, 2008, Organized by: AICTE & Ministry of HRD, Govt. of India.**
35. Attended and presented a paper in workshop on “Quality improvement in Teaching, learning and evaluation of PG courses” on 1<sup>st</sup> Sept., 2008.
36. **Has been a Member of Task Force constituted for preparation of syllabus of B.E. 1st year in CSVTU, Bhilai, India.**
37. Attended National Level Workshop on “Requirements of Technical courses for meeting the future needs for human resources”, Organized by Ministry of Commerce & Industries & Ministry of Technical Education, Chhattisgarh, India.
38. **Attended a short term course on advanced communication techniques in NIT, Rourkela, India during 18-22 December 2006.**
39. Attended Workshop on “Nanotechnology”, August 27-28, 2005, CSVTU Bhilai.
40. FDP on “Basic teaching competency for Engineering Colleges, organized by National Institute of Technical Teachers Training Institute (NITTTR) Bhopal, March 22-26, 2004.