Prof. G R SINHA
Provost (Vice Chancellor) & Professor (Computer Science and Engineering)
gr.sinha@gsfcuniversity.ac.in, provost@gsfcuniversity.ac.in

Education

Ph.D. (2010) – Chhattisgarh Swami Vivekanand Technical University Bhilai
Thesis titled ""Design and Implementation of Image Enhancement Techniques in Frequency Domain"
M.Tech. (2004) with Gold Medal & B.E. (1998)- National Institute of Technology, Raipur (Formerly, Govt. Engineering College)

Key Skills

Prof. G R Sinha is capable of providing comprehensive solutions, academia, research, industry and other government bodies in the following areas:

1. Image Processing and Computer Vision; Biomedical Image Processing and Cognitive Science Applications; EEG Signal Processing for Mental Wellbeing; and Outcome based Education (OBE) and ICT based Employability Skills
2. Digital Signal/Image Processing, Cognitive Science, AI/Machine Learning, Analog & Digital Communication System, Digital/Analog Electronics, Sensors and IoTs, and Circuit Theory

Background

Joined GSFC University in December 2023

Credentials and Accomplishments

Prof. G R Sinha (PhD, Fellow IETE, Fellow IEI, SMACM, SMIEEE) is **Vice Chancellor** of GSFC University Vadodara, Gujarat, India. Prior to this, he was **Professor at International Institute of Information Technology Bangalore (IIITB)**. He served as **Professor at Myanmar Institute of Information Technology (MIIT) Mandalay Myanmar on deputation in friendship project between Government of India and Government of Republic of Myanmar**. He has been Visiting Professor (Online) in **National Chung Hsing University Taiwan; at University of Sannio Italy** and Visiting Professor (Honorary) in Sri Lanka Technological Campus Colombo.

He has published 323 research papers, book chapters and books at International and National levels and 27 Edited books in the field of Cognitive Science, Biomedical Signal Processing, Biometrics, Optimization Techniques, Sensors, Machine Learning, Outcome based Education, Data Deduplication with Internationally reputed publishers Elsevier, IOP, Springer, Taylor & Francis, IGI. He owns two Australian patents and one German patent. He is Associate Editor of five SCI/Scopus indexed journals and has been Guest Editor in various SCI journals, such as IET Electronics Letters, Journal of Healthcare Engineering, International Journal of Biometrics.

He has teaching and research experience of 26 years. He has been Dean of Faculty and Executive Council Member of CSVTU and currently a member of Senate of MIIT. Dr Sinha has been ACM

Distinguished Speaker in the field of DSP (2017-2021). He has been Expert Member for Vocational Training Program by Tata Institute of Social Sciences (TISS) for Two Years (2017-2019); Chhattisgarh Representative of IEEE MP Sub-Section Executive Council (2014-2017); Distinguished Speaker in the field of Digital Image Processing by Computer Society of India (2015). He served as Distinguished IEEE Lecturer in IEEE India council for Bombay section.

He is recipient of many Awards and recognitions: ACM Senior Member Award 2023, Mentor in IEEE India Council 2023, Distinguished Alumnus Award 2022 by National Institute of Technology Raipur; Recognition by Rector of Myanmar Aerospace Engineering University, The Republic of Union of Myanmar (2022); Honor by Sanatan Samaj Myanmar for Social Services (2022); Certificate of Recognition for Volunteering in ACM Hyderabad Deccan Chapter (2020-2021); TCS Award 2014 for Outstanding contributions in Campus Commune of TCS; Rajaram Bapu Patil ISTE National Award 2013 for Promising Teacher in Technical Education by ISTE New Delhi; Emerging Chhattisgarh Award 2013; Engineer of the Year Award 2011; Young Engineer Award 2008; Young Scientist Award 2005; IEI Expert Engineer Award 2007; ISCA Young Scientist Award 2006 Nomination; GOLD Medal for first position in university in M.Tech.; Deshbandhu Merit Scholarship for 05 years and received Best Paper Awards in 3 International Conferences.

He has delivered more than 75 Keynote/Invited Talks and Chaired many Technical Sessions in International Conferences across the world such as Singapore, Taiwan, Mauritius, Myanmar, Sri Lanka, Irvine, Italy and India. His Special Session on "Deep Learning in Biometrics" was included in IEEE International Conference on Image Processing 2017. He is also member of many National Professional bodies like ISTE, CSI, ISCA, and IEI. He is member of various committees of the University and has been Vice President of Computer Society of India for Bhilai Chapter for two consecutive years. He has been Publication Chair in ADCOM 2022 and General Chair of International Conference on Intelligent Commuting and Communication 2022. He is Editorial Board Member of Progress in Biomedical Engineering, IOP Publishing UK.

He is Consultant of various Skill Development initiatives of NSDC, Govt. of India and an upcoming British University in Myanmar. He is regular Referee of Project Grants under DST-EMR scheme and several other schemes of Govt. of India. He received few important consultancies supports as grants and travel support. He has been Expert Member of Professor promotion committee of German-Jordanian university Jordan and Project Proposal evaluation committee of UK-Israel Research Grants. He has been appointed as Member of IQAC by MIIT Mandalay, Myanmar (July 2022-December 2024) and Member of Board of Examiner in University of Mauritius (2022-2023). He is advisor to upcoming New Next University in Mandalay Myanmar. Dr. Sinha is Academic Council and Research Council Member of many universities.

Dr Sinha has supervised 09 PhD Scholars, 15 M. Tech. Scholars, 100 UG level students. His research interest includes Biometrics, Medical/Biomedical Image Processing, Cognitive Science, Computer Vision, Outcome based Education (OBE) and ICT tools for developing Employability Skills.

Most Notable Publications of last 3 years only

Publications	National	International	Total
Journals	49	98	147
Conferences (Papers, Abstracts)	63	53	116
Books/Book Chapters			60
Total Publications			323

1. N. N. Kyaw, P. Mitra & G. R. Sinha, “Automated recognition of Myanmar sign language using deep learning module”, Int. j. inf. tecnol. 16, 633–640, 2024. https://doi.org/10.1007/s41870-023-01680-2.
2. Khare, S.K.; Bajaj, V.; Gaikwad, N.B.; Sinha, G.R. Ensemble Wavelet Decomposition-Based Detection of Mental States Using Electroencephalography Signals. Sensors 2023, 23, 7860. https://doi.org/10.3390/s23187860.
3. G R Sinha, Bidyadhar Subudhi, Chih-Peng Fan and Nisar Humaira (ed.): 'Cognitive Sensing Technologies and Applications' (Control, Robotics and Sensors, 2023) DOI: IET Digital Library August 2023, https://digital-library.theiet.org/content/books/ce/pbce135e
4. Varun Bajaj and G R Sinha, “Cognitive Sensors, Volume 2, Applications in smart healthcare”, IOP Publishing, April 2023, https://iopscience.iop.org/book/edit/978-0-7503-5346-5
5. Machine Learning in Healthcare-Fundamentals and Recent Applications, Bikesh Kumar Singh and G.R. Sinha, 1st Edition, ISBN: 9781003097808, CRC Press, Taylor and Francis, 2022.
6. Varun Bajaj and G R Sinha, “Cognitive Sensors, Volume 1, Intelligent sensing, sensor data analysis and application”, IOP Publishing, December 2022, https://iopscience.iop.org/book/edit/978-0-7503-5326-7
7. Tilottama Goswami and G. R. Sinha, “Statistical Modelling in Machine Learning Concepts and Applications”, Elsevier, October 2022, https://www.elsevier.com/books/statistical-modeling-in-machine-learning/goswami/978-0-323-91776-6
8. Subudhi, Bidyadhar and G.R. Sinha, editors. Development of Employability Skills Through Pragmatic Assessment of Student Learning Outcomes. IGI Global, 2022. https://doi.org/10.4018/978-1-6684-4210-4
9. Ascar Davix, D Judson, G R Sinha, “License plate localization using kernel search multiwavelet decomposition”, Multimedia Tools and Applications, Springer, 2023, https://doi.org/10.1007/s11042-023-14570-3
10. U D Dixit, M S Shirdhonkar and G R Sinha. Automatic logo detection from document image using HOG features. Multimedia Tools Applications (2022). Springer. https://doi.org/10.1007/s11042-022-13300-5
11. Sharma, V.S., Nagwanshi, K.K. & Sinha, G.R. Classification of defects in photonic bandgap crystal using machine learning under Microsoft AzureML environment. Multimedia Tools Applications (2022). Springer. https://doi.org/10.1007/s11042-022-11899-z
12. Praveen Kumar Shukla, Rahul Kumar Chaurasia and G. R. Sinha, “A Thresholding-Free State Detection Approach for Home Appliance Control Using P300-Based BCI”, IEEE SENSORS Journal, 21 (15), pp. 16927-16936, AUGUST 1, 2021, https://ieeexplore.ieee.org/document/9427074
13. Sachin Taran, Varun Bajaj, G.R. Sinha and Kemal Polat, “Detection of sleep apnea events using electroencephalogram signals”, Applied Acoustics, Vol. 181, 2021, 108137, https://doi.org/10.1016/j.apacoust.2021.108137,https://www.sciencedirect.com/science/article/pii/S0003682X21002310
14. Silvia Liberata Ullo, Amrita Mohan, Alessandro Sebastianelli, Shaik Ejaz Ahamed, Basant Kumar, Ramji Dwived and G. R. Sinha, “A New Mask R-CNN-Based Method for Improved Landslide Detection”, IEEE Journal of selected topics in Applied Earth Observations and Remote Sensing, Vol. 14, pp. 3799-3810, 2021, https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9373966
15. S. Mohdiwale, M. Sahu, G. R. Sinha and V. Bhateja, "Statistical Wavelets with Harmony Search based Optimal Feature Selection of EEG Signals for Motor Imagery Classification," in

IEEE Sensors Journal, July 2020, doi: 10.1109/JSEN.2020.3026172, https://ieeexplore.ieee.org/document/9204669

16. Smith K. Khare, Varun Bajaj, G. R. Sinha, Adaptive Tunable Q Wavelet Transform based Emotion Identification, IEEE Transactions on Instrumentation and Measurement, Vol. 69, No. 12, pages 9609-9617, December 2020, https://ieeexplore.ieee.org/document/9131737
17. Samrudhi Mohdiwale, Mridu Sahu, G. R. Sinha, Varun Bajaj, Automated Cognitive Workload Assessment using Logical Teaching Learning based Optimization and PROMETHEE Multi-Criteria Decision-Making Approach, IEEE Sensor Journal, Vol. 20, No. 22, pages 13629-13637, November 2020, https://ieeexplore.ieee.org/document/9131752
18. Silvia Liberata Ullo, Smith K. Khare, Varun Bajaj and G. R. Sinha, Hybrid Computerized Method for Environmental Sound Classification, IEEE Access, Vol. 8, pp. 124055-124065, July 2020, https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9129696.
19. Carminati, M.; Sinha, G.R.; Mohdiwale, S.; Ullo, S.L. Miniaturized Pervasive Sensors for Indoor Health Monitoring in Smart Cities. Smart Cities 2021, 4, 146-155. https://doi.org/10.3390/smartcities4010008
20. Silvia Lberata Ullo and G.R. Sinha, “Advances in Smart Environment Monitoring System using IoT and Sensors”, Sensors, MDPI, 20(3113), pp. 1-18, 2020, doi:10.3390/s2011311