# Resume

# DR. KAVITA THAKUR

Professor (SOS in Electronics and Photonics),
Senior Member (IEEE)
Pt. Ravi Shankar Shukla University, Raipur (C.G.), India DOB. : 07<sup>th</sup> December 1967

## Address:

C/o Dharmendra Nath Thakur, Near Doodhadhari Mandir, Math Para, Raipur (C.G.), 492001, India. Phone: (0771) 2272999(R), 09926801119(M) Email: <u>kavithakur@rediffmail.com</u>, kavithakur67@gmail.com

Education Boon Cation Inon Cation

- M.P. Board of Education, Bhopal
  - 12<sup>th</sup>(HSSC): 82%
- Govt. Engineering College (Now National Institute of Technology, Raipur)
  - B.E. (Electrical Engineering): 78.68%
- University of Roorkee (Now Indian Institute of Technology)
  - M.E. (Hons.) in Electronics & Telecommunication Engineering: 82.75 %
- Pt. Ravi Shankar Shukla University, Raipur (C.G.), India
  - Ph.D. in Electrical Engineering on "Extraction of Phonetic Parameters for Status Recognition of Pregnant Woman using Linguistic Segmentals."

## **Total Teaching & Research Experience: 29 Years**

#### EMPLOYMENT RECORD

Employer	Designation	Period
Pt.Ravishankar Shukla University,Raipur,CG	Lecturer	From 29.01.1994 to 26.07.1998
Pt.Ravishankar Shukla University	Senior Lecturer	From 27.07.1198 to 26.07.2003
Pt.Ravishankar Shukla University	Reader	From 27.07.2003 to 26.07.2006
Pt.Ravishankar Shukla University	Associate professor	From 27.07.2006 to 03.03.2013
Pt.Ravishankar Shukla University	Professor Direct Recruited	From 04.03.2013 till date

#### **RESEARCH PAPERS PUBLISHED:**

Publication	National	International	Total
Journals	35	42	77
Conferences	31	38	72
Total	66	80	149

#### **Book Published**

- 1. Phonetic parameters for status recognition of pregnant women Kavita Thakur & A. S. Zadganokar Publisher- Lap LAMBERT academic Publishing GmbH & Co.KG, Germany, ISBN-978-3-8465-4338-2. Published on the: 10.02.2012
- 2. A Practical Approach to Frequency Domain Image Enhancement Methods. Quality Assessment of Digital Images G R Sinha, M K Kowar, Kavita Thakur Publisher- Lap LAMBERT academic Publishing GmbH & Co.KG, Germany,ISBN-978-3-659-17007-2,Published on 28-06-2012
- 3. Electronic Instruments for studying the atmospheric effect over PV Cell Prafulla Vyas and Kavita Thakur Publisher-LAP LAMBERT Academic Publishing, OmniScriptum GmbH & Co. KG, Germany, pp 1-149, ISBN-978-3-659-83378-6, Published on 31-10-2016.
- Title of Edited Book-Computational Intelligence and Applications for Pandemics and Healthcare
   Editors- Sapna Singh Kshatri, Bharti College of Engineering and Technology, India; Kavita Thakur, Pt. Ravishankar Shukla University, India; Maleika Heenaye Mamode Khan,University of Mauritius, Mauritius; Deepak Singh Bennett University, India; G. R. Sinha, Myanmar Institute of Information Technology, Mandalay, Myanmar
   Publisher-IGI Golbal, Medical Information Science Reference (an imprint of IGI Global) 701
   E. Chocolate Avenue, Hershey PA, USA 17033, pages 383,published in April 2022, ISBN 9781799898313 (h/c) | ISBN 9781799898320 (s/c) | ISBN 9781799898337 (ebook)

#### **Book Chapter**

- 1. Title of Book-Optimizing Assistive Technologies for Aging **Populations** Book Chapter- Assistive Technology for Heart Monitoring of Elderly People through speech analysis Authosr- Anjali Deshpande ,Kavita Thakur, Arun Shrihari Zadgaonkar, Publisher: IGI Global International, ISBN13:9781466695306, EISBN13: 9781466695313, pp 335-356, September 2015. Editors : Prof. Yosry Morsi, Swinburn, University of Technology, Australia, Prof. Anupam Shukla, Institute of Information Technology and Management, Gwalior, India, Chandra Prakash Rathor, Institute of Information Technology and Management, Gwalior, India
- 2. Title of the Book-Recent Advances in Circuit Systems, Signal Processing and Communications (Recent Advances in Electrical Engineering Series- 59) Book Chapter: A Novel Type-2 Fuzzy Directed Hybrid Post Filtering Technique for efficient JPEG Image Artifact Reduction Authors: Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta, ISBN : 978-1-61804-365, ISSN: 1790-5117, pp 125-134, February 13-15, 2016 Editor: Prof Valeri Mladenov, Technical University of Sofia, Bulgaria, Publisher: WSEAS Press,www.wseas.org, Barcelona, Spain.
- High-Quality Medical Image Compression using Discrete OrthogonalCosine Stockwell Transform and Optimal Integer Bit Allocated Quantization Vikrant Singh Thakur, Dr Kavita Thakur, Dr Shubhrata Gupta © Springer International Publishing AG 2017, A. Ghosh et al. (Eds.):MIKE 2017, Lecture Notes in Artificial Intelligence (LNAI) 10682, pp. 100–110, December 2017, https://doi.org/10.1007/978-3-319-71928-3\_11, ISSN 0302-9743, ISSN 1611-3349 (electronic), ISBN 978-3-319-71927-6 ISBN 978-3-319-71928-3 (eBook), https://doi.org/10.1007/978-3-319-71928-3.
- Title of the Book-Advances in Biometrics-Modern Methods and Implementation strategies (Springer Book); Editors: Sinha G R (Ed.) Book Chapter-Social Impact of Biometric Technology: Myth and Implications of Biometrics, Issues and Challenges, Authors : Dr Kavita Thakur and Dr Prafulla Vyas,, pp 129-155, 14<sup>th</sup>

December 2019,DOI:http://doi.org/10.1007/978-3-030-30436-2\_7,Springer Nature ,Cham, Print ISBN : 978-3-030-30435-5,online ISBN: 978-3-030-30436-2.

- Title of the Book- Advances in Modern Sensor-Physics, Design, Simulation and Application; Editor Dr G R Sinha Book Chapter- Classification and Characteristics of sensors, Authors : Dr Prafulla Vyas, Dr Kavita Thakur, Publisher: IOP Science ,Bristol, UK ISBN: 978-0-7503-2708-7(e book); 978-0-7503-2708-3(print); 978-0-7503-2708-4(my print); 978-0-7503-2708-0(mobi) DOI:10.1088/978-0-7503-2708-7, Version:20201101, November 11,2020,IOP(e Books)
- 6. Title of Book- Advances in Biomedical Engineering and Technology, Lecture Notes in Biomedical Engineering , Editors: Bikesh Singh et al Book Chapter: Comparative investigation of different classification techniques for Epilepsy Detection using EEG signals. Pp 413-423. Authors: Sunandan Mandal, Manvendra Nath Thakur, Kavita Thakur, Bikesh Singh Publishers: Springer Nature Singapore May 2021 ISSN:2195-271X;2195-2728(electronics) ISBN: 978-981-15-6528-7, 978-981-15-6529-4(e book) https//doi.org/10.1007/978-981-15-6329-4
- 7. Title of Book-Computational Intelligence and Applications for Pandemics and Healthcare Book Chapter 6: Integration of ML and IoT for Healthcare Systems Authors: Shruti Sharma, Ajou University, Suwon, South Korea, Gulab Singh Verma, Pt. Ravishankar Shukla University, Raipur, India, Kavita Thakur, Pt. Ravishankar Shukla University, Raipur, India

DOI: 10.4018/978-1-7998-9831-3.ch006, pp115-138, published in April 2022 Publishers: IGI Golbal, Medical Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue, Hershey PA, USA 17033, pages 383, ISBN 9781799898313 (h/c) | ISBN 9781799898320 (s/c) | ISBN 9781799898337 (ebook)

8. Title of Book-Computational Intelligence and Applications for Pandemics and Healthcare Book Chapter 8: Study of Behavioral Changes and Heart Rate Variability Through Speech Signal Analysis in COVID-19 Patients Authors: Anjali Deshpande, M. M. College of Technology, Raipur, India, Kavita Thakur,

RSU, India, Prafulla Vyas, Disha College, India, G. R. Sinha, Myanmar Institute of Information Technology, Mandalay, Myanmar

DOI: 10.4018/978-1-7998-9831-3.ch008, pp159-183, published in April 2022 Publishers: IGI Golbal, Medical Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue, Hershey PA, USA 17033, pages 383, ISBN 9781799898313 (h/c) | ISBN 9781799898320 (s/c) | ISBN 9781799898337 (ebook)

9. Title of Book: Cognitive Sensing Technology and applications Editors: Dr G R Sinha, Adjunct Professor, International Institute of Information Technology Bangalore (IIITB),India, Dr Bidyadhar Subudhi, Professor and Dean, Electrical Engineering Department, Indian Institute of Technology Goa, India, Dr Chih-Peng Fan, Professor, Communication IC & Signal Processing Lab, National Chung Hsing University, Taiwan, Dr Humaira Nisar, Professor and Head of the Master ofEngineering Programme, Department of Electronic Engineering, Universitiy Tunku Abdul Rahman, Kampar, Perak, Malaysia Book Chapter: Cognitive IOT Sensors for Smart Industrial Application: Healthcare and Automation

Authors: Shruti Sharma, Prafulla Vyas, Kavita Thakur, Ganesh R. Sinha, Ashutosh Sharma Publisher: Accepted for publication in The IET International Book Series on Sensors.

## **Research Areas:**

1. Speech, Image & Biomedical signal processing including Design of Digital Filters for personal identification, Microcontroller Design based control, Digital Image Processing applications in biometric image security, forensic science, pattern recognition, early detection of breast cancer, content retrieval of underwater imaging, nano imaging etc

## No. of Ph.D. Thesis Guided:

## Completed: 09

- <u>Dr. G.R.Sinha</u>, "Design and Implementation of Image Enhancement Techniques in *Frequency Domain*", Chhattisgarh Swami Vivekananda Technical University, Bhilai, C.G., India, April 2010.
- <u>Dr. Moushmi Kar</u>, "*Extraction of Speech Parameters for Person Identification using FIR Filters*", Pt. Ravishankar Shukla University, Raipur, C.G., India , July 2010.
- <u>Dr.K.V.R. Surya Prakash</u>, "Speech Signal Processing of Mentally Retarded Persons for *Identification of their Mental Status*", Pt. Ravishankar Shukla University, Raipur, C.G., India, March 2011.
- <u>Dr. Aijaz Ur Rahman,</u> "Design and Implementation of Edge-based, Region-based and Threshold-based Image Segmentation Techniques", Pt. Ravishankar Shukla University, Raipur, C.G., India, March 2014.
- <u>Bhishej Ku. Dewangan</u>, "Some contributions to the Design and Performance Evaluation of *Image Compression Techniques*", Pt. Ravishankar Shukla University, Raipur, C.G., India April 2014.
- <u>Prafulla Ku Vyas</u>, "Design of Microcontroller based System for Monitoring the variations of Atmosphere Conditions for Optimal use of PV Cell's Characteristics", Pt. Ravishankar Shukla University, Raipur, C.G., India , August 2014.
- <u>Anjali Deshpandey</u>, "A Correlation between Speech Features and Functioning of Human *Heart*", Pt. Ravishankar Shukla University, Raipur, C.G., India , August 2014.
- <u>Vikrant Singh Thakur</u>, "Advanced Transform Coding Techniques foe efficient Image and Video Compression : A Qualitative Approach" National Institute of Technology (NIT), Raipur, CG, India, December 2019
- <u>Sunandan Mandal</u>," *Machine learning approaches for Electroencephalogram (EEG) based Brain Computer Interface (BCI): Applications in cognitive state classification* ", Pt. Ravishankar Shukla University, Raipur, C.G., India, *January 2023*

## No. of M. Phil. Thesis Guided :

## Completed: 04

- <u>Vandana Jha</u>," *Radiographic Image Enhancement using Gray Scale modification*", June 2008.
- <u>Rajesh Prasad</u>," Image Enhancement using Gray scale modification", June 2008.
- <u>Mohan Lal Sonkar</u>," *Computer Aided Design of Amplifier using Virtual Instrumentation*", June 2008
- <u>Nilesh Dewangan</u>, "**Parallel implementation of Block Truncation Coding (BTC) for Image Compression**", June 2012.
- ٠

Research Experience: 29 years

## Patents Granted:

- Australian Government Innovation patent on "A DNN Based Method to Approximate Resource Allocation in a Cell-Free Massive MIMO Network", Patent number: 2021105950, Granted on 10<sup>th</sup> November, 2021 for Eight years from 19<sup>th</sup> August, 2021
- Australian Government Innovation patent on "Method and System for Clock Synchronization in IoT Networks using Bayesian Estimation" Patent number: 2021105878, Granted on 17<sup>th</sup> November, 2021 for Eight years from 19<sup>th</sup> August, 2021
- German Patent on "A downlink NOMA system with interference suppression in a Cognitive radio network to improve spectral efficiency", Patent number: H04W 72/04, Granted on 12th May 2022.

## Refresher/Orientaion/Work Shop /Short Term Training Program Attended

- Refresher course in Physics (Digital Electronics and Micro Processors), 08.02.1999 to 27.02.1999, Organized by Academic Staff College, Rani Durgavati Vishwavidyalaya, Jabalpur, M.P.
- Orientation course, 31.05.1999 to 27.06.1999, Organized by Academic Staff College, Dr. Harisingh Gour Vishwavidyalya, Sagar, M.P.
- Refresher Course in Physics/Electronics on Digital Electronics and Micro Processors from 05-02-2001 to 24.02.2001, Organised by Academic Staff College, Rani Durgavati Vishwavidyalya, Jabalpur ,M.P
- Refresher Course in Physics/Electronics on Digital Electronics and Micro Processors from 18-11-2002 to 07.12.2002 (obtained Grade-'A'), organized by Academic Staff College, Rani Durgavati Vishwavidyalya, Jabalpur (M.P.)
- A Short Term Course on Information Technology And Networking,22nd Sep-06th Oct , 1997, Sponsored by Indian Society For Technical Education And CMS Computer Institute, Raipur, M.P., Organized by Raipur Chapter, Govt. Engineering College Raipur, M.P.
- Workshop on MATLAB and SIMULINK, Aug.8-9,2003, Sponsored by India Soft Technologies Pvt. Ltd., PUNE and Cranes Software International Ltd., Bangalore, Organised by Raipur Institute of Technology, Raipur, C.G.
- Short-Term Course on "Matlab" from 4th Oct to 8th Oct, 2005, organized jointly by CHIPS, Govt. Engineering College Raipur and Indian Institute of Technology, Kanpur, as a part of IIT K- Chhattisgarh knowledge sharing programme, at G.E.C. Raipur, C.G., India.
- U.G.C. Sponsored workshop in capacity building of women managers in higher education, July.21 -25,2009, at School of Psychology, Pt.Ravishankar Shukla University, Raipur.(C.G.)
- Asia Pacific Signal and Information Processing Conference Annual Summit and Conference 2010 (APSIPA ASC 2010), Dec.14-17,2010, jointly organized by a\* Institute for Infocomm Research, Singapore and Singapore Exhibition and Convention Bureau at Biopolis, Singapore.
- 167th Meeting of Acoustical Society of America, May 5-9, 2014, Providence, Rhode Island, USA.
- One week short term Training Program on Nature Inspired Computing and its Applications, organized by the Department of Electrical engineering during 23 rd to 27th October 2017, at National Institute of Technology, Raipur, India.
- National Workshop on Safe Campus : Implementation of UGC Guidelines/Regulation on Gender Champions and POSH ,January 22<sup>nd</sup>-23<sup>rd</sup>,2020, organized by Association of Indian Universities ,PRIA and Pt Ravishankar Shukla University, Raipur, CG.

 On line Faculty Development program on Real Time Hardware in Loop (HIL)Simulation for Power Electronics and Power Systems, organized by Department of Electrical Engineering, Rajkiya Engineering College, Mainpuri in association with OPAL-RT Technologies & IEEE STB REC Mainpuri from June 22<sup>nd</sup>-26<sup>th</sup>,2020.

## **Member : Editorial Board**

- International Journal of Image Processing & Applications (IJIPA), Vol.1, No.1, Jan-June, 2010, International Science Press, F-2562, Ansal's Palam Bihar, Gurgaon, Haryana, India.
- Journal of Basic and Applied Physics (JBAP), ISSN: 2304-9340(Print), ISSN:2304-9332(Online), World Academic Publishing Company.
- Journal of Microelectronics & Solid State Devices, ISSN : 2455-3336, STM Journals , Consortium E-Learning Network Pvt. Ltd. (CELNET), Noida, May 2015 to 2020.
- American Research Journal of Physics, ISSN-2380-5714, December 2017 to 2020.
- Journal of Pt Ravishankar Shukla University(Science- JRU B)

## **Member : Advisory Committee**

- The ExcelingTech UK based leading Publishers .
- Advisory Editorial Board (IJMRAE), Ascent Publication House Pune, India

#### <u>Reviewer</u>

- Journal of Advances in Applied Research", P.S.G.R. Krishnammal College for Women, Coimbatore, India.May 2011.
- Journal of Engineering & Computer Innovation" (JECI), Academic Journals, May 2011
- Indian Journal of Science & Technolog, Chennai, India (July 2009).
- Journal of Basic and Applied Physics (JBAP), World Academic Publishing Company
- International journal of Multimedia and its Applications (IJMA), Academy & Industry Research Collaboration Center (AIRCC)..
- CSVTU Research Journal (December 2017)
- Journal of Medical Imaging and Health Informatics, ISSN: 2156-7018 (Print), EISSN: 2156-7026 (Online) (September 2014).
- IETE Technical Review, Taylor and Francis( December 2014)
- Institution of Engineers, India, Series B (March 2015)
- Biomedical Signal Processing and Control, ISSN: 1746-8094, Elsevier (JULY 2015)
- STM Journals, Consortium E-Learning Network Pvt. Ltd. (CELNET), Noida, May 2015
- American Research Journal of Physics, ISSN-2380-5714, December 2017
- International Journal of Speech Technology, ISSN: 1381-2416(print),1572-8110 (online), January 2018
- Imaging Science Journal, Print ISSN: 1368-2199 Online ISSN: 1743-131X, March 2018, July 2019.
- International Journal of Computational Vision and Robotics, ISSN: 1752914X, 17529131, January 2018

• Journal of Medical Science, ISSN: 0148-5598 (print), 1753-689X (on line), April 2019

## **Research Projects : 03**

S. No.	Title of Project	Amount	Funding Agency	Remarks
		(Lacs)		
1.	Speaker Identification using	0.20	U.G.C., New Delhi, India	Completed
	DSP tools.		(No. 1263/Grant	(2001-2003)
			Cell/MRP/2001, Raipur,	
			dated 23/08/2001)	
2.	Design and Implementation	2.0	Chhattisgarh Council of	Completed
	of Image Enhancement		Science and Technology	(2008-2010)
	Techniques in Spatial		(CCOST), Raipur, C.G.,	
	Domain.		India	
3.	Development and	5.0	Chhattisgarh Council of	Completed
	Implementation of software		Science and Technology	(Aril 2016-2018)
	based Automatic Heart		(CCOST), Raipur, C.G.,	
	Monitoring System through		India.	
	Speech Signal Analysis.		(Endt no 72/MRP/ CCOST,	
			Raipur, 23/04/2016)	

## Awards and Recognition

- Awarded GATE Scholarship by Department of Education, Ministry of Human Resource Development, Govt. of India, 1989 1991.
- Awarded certificate of merit in recognition of the high position secured in the list of meritorious candidates, qualifying for awards from Madhya Pradesh in 1984.
- Awarded a Minor Research Project of Rs. 0.02 Lacs from University Grants Commission, New Delhi for the Year 2001-2003.
- Awarded a Minor Research Project of Rs.2.00 Lacs from Chhattisgarh Council of Science and Technology, Raipur, C.G., for the Year 2008-2010.
- Recipient of Rashtriya Gaurav Award for year 2010-2011 from IIFS (India International Friendship Society), New Delhi, India.
- Recipient of "Best Citizen of India Award" for year 2011 from International Publishing House, New Delhi, India.
- Cited my Biography in "Morques Who's Who", NJ 07974 USA.( Ref. no. 40936808-4DB2DCA2-503-98ABE)
- Received 'R.S. Tomar Memorial Best Paper Award' for the year 2010 on the paper entitled "Estimation of Saturated Time Period of Perceptual Disordered Persons using Formant Frequency Analysis ", presented in UGC sponsored National Conference on Managing Interpersonal Communication in Global World ,during Oct. 22- 24,2010 ,organized by S.O.S. in Psychology, Pt. R. S.Univ., Raipur ,C.G. in association with Psycho – Linguistics Association (PLAI) at S.O.S. in Psychology, Pt. R. S. Univ. ,Raipur , C.G., India.
- Awarded IEEE Senior Membership by IEEE Signal Processing Society (letter dated 28 November 2012) and Instrumentation and Measurement Society (letter dated 23 October 2012), Piscataway, NJ 08854, USA.
- Cited my biographical note in Asian Admirable Achievers (Vol. VII), 2013, published by Rifacimento International, New Delhi, India.
- Cited my biographical note in Who's who in acoustics in India & France 2013, published by ASI ( Acoustical Society of India) & SFA ( Society of France Acoustics)

- Received Nari Shakti Samman (award) as educationist by Vakta Manch, Raipur on 23<sup>rd</sup> February 2014.
- Cited my biographical note in Reference Asia Asia's Who's who of Men and Women of Achievement, pg no 438, Vol. III, March 08, 2014, published by Rifacimento International, New Delhi, India.
- Cited my biographical note in Emerald Who's Who in Asia , pg no 485, September 2014, published by Rifacimento International, New Delhi, India.
- Recipient of Rashtriya Gaurav Award for year 2014 from IIFS (India International Friendship Society) ,New Delhi, India.
- Received Best Paper award in the paper "Performance evaluation of Block Truncation code for image compression, presented in the National conference on Applications of Computers & Electronics for the welfare of Rural Masses, Feb 6-7, 2015, sponsored by Chhattisgarh Council of Science and Technology, Raipur, organized by Rungta College of Engineering and Technology, Bhilai.
- Recipient of Bharat Excellence Award for year 2015 from IFF (India Friendship Forum) , New Delhi, India.
- Cited my biographical note in Emerald Who's Who in Asia, Vol. II, pg no 435, February 2016, published by Rifacimento International, New Delhi, India.
- Awarded a Minor Research Project of Rs. 5.0 Lacs from Chhattisgarh Council of Science and Technology, Raipur, CG for the Year April 2016-2018.
- Received Sangharsh Sheel Mahila Award as educationist by Vakta Manch, Raipur on 12th June 2016.
- Recipient of Bharat Vikas Award for the year 2016 (10th December) from Institute of Self Reliance, Baramunda,Bhubaneshwar,India
- Recipient of 1<sup>st</sup> best oral presentation award (Paper tilted Efficient SEM Image Compression for High Quality Reproduction of Nano Material Image using Lapped Biorthogonal Transform & Block Variance Classified Rate Quantization) in the National Confernce on Signal Processing, Sustainable Energy Materials and Astronomy & Astrophysics (NSSEMA-2017) ,March 28-30,2017 organized by PRSU, Raipur and Luminescence Society of India at PRSU, Raipur.
- Honoured by The Institution of Engineers (I), Chhattisgarh State Centre, Raipur for outstanding performance, contribution and achievement in the field of Engineering and and Technology on 29th May 2017.
- Recipient of the award of Distinguished Woman in Engineering for the contribution and achievement in the field of Electrical Engineering (VIWA 2018) on 3<sup>rd</sup> March 2018 by Centre for advanced Research and Design,Venus International Foundation,Chennai-600088,Tamil Nadu,India.
- Recipient of the TOP-25 LIST AWARDS-2018 (Research Category) for Excellence in Professional Education and Industry, on 18<sup>th</sup> March 2018 presented by Educationexpo TV (EET CRS), Research and Branding Company, Hyderabad, India. www.educationexpo.tv.
- Receipient of Women Researcher Award in the 1<sup>st</sup> International Scientist Awards on Engineering, Science and Medicine, held on 14 & 15-September-2019,Chennai,India organized by VDGOOD Professional Association,India.
- Recipient of a prestigious State Level, Engineer of the Year award (2019), on 15th September 2019 by Practising Engineers Walfare Association, Chhattisgarh.
- Receipient of MARFATIA Awards 2020 –Artficial Intelligence-based classification of schizophrenia : A high density EEG-support vector machine study by Sai Krishna Tikka, Bikesh Kumar Singh, S. Haque Nizamie, Shobit Garg, Sunandan Mandal, Kavita Thakur, Lokesh Kumar Singh,14<sup>th</sup> January 2020,volume 62,Issue 7,page 10 (MarfrtiaAwards, Indian J Psychiatry 2020; 62,Suppl SI :10)

- Received Kala Samman 2020 Award as educationist by Vakta Manch, Raipur on 2<sup>nd</sup> September 2020.
- Receipient of Outstanding Scientist Award in the 10th International Scientist Awards on Engineering, Science and Medicine, held on 26 & 27-Sep-2020, Hyderabad, India, Organized by VDGOOD Professional Association.
- Received Agrani Mahila Samman 2021 by Vakta Manch, Raipur on 15<sup>th</sup> May 2021.
- Received Paryavaran Mitra Samman 2021 by Vakta Manch, Raipur on 23<sup>rd</sup> June 2021.

#### Abroad Visit

- Attended an International Conference APSIPA ASC 2010 (Asia Pacific Signal and Information Processing Association Annual Summit and Conference 2010), Dec.14-17, **Biopolis, Singapore.**
- Attended 167th Meeting of Acoustical Society of America in Providence, **Rhode Island**, **GA**, **Atlanta**, **USA**, held during May 05-09, 2014 and delivered a lecturer of 15 minutes duration on 09 May 2014. During this period, visited University of Rhode Island, Rhode Island

#### Particulars of Any other Professional Experience

- Delivered a lecture on Digital signal processing as a resource person in a refresher course at S.O.S. Computer Science, Pt. R.S. University, Raipur, C.G. (2005).
- An invited talk on fundamental of signal analysis in sector-10 school, Bhilai in Orientation Programme of Teachers on 29/08/2007.
- A seminar on Digital Electronics on 27.11.2008 at Govt. P.G. Digvijay College, Rajnandgaon, C.G.
- An invited talk and Chair a technical Session in one day National Workshop on Advancement in Communication Technology and Application on 31<sup>st</sup> Jan. 2009 at Raipur Institute of Technology, Raipur.
- Invited as chief guest on the occasion of Engineers Day celebration on 15<sup>th</sup> September 2010, organized by RSR Rungta College of Engineering & Technology, Bhilai.
- Chaired a Technical Session in National Seminar on Advanced Communication Techniques & Networking: Exploring Challenges, at Shri Shankaryacharya College of Engineering and Technology, Bhilai, C.G. (6th Jan. 2007).
- Delivered a keynote Address in Technical Session of National Conference on information and Communication Technology and its Application (Technovision 2007), Oct 26-27, 2007, organized at Shri Shankaryacharya College of Engineering and Technology, Bhilai, C.G.
- Invited as subject expert in Tech fair of youth festival 2009 organized by C. G. Govt and Disha Institute of Management And Technology (DMAT) Raipur on 24.02.2009 and judged 20 Electronics Models.
- Delivered a keynote address and chaired a technical session of All India Conference on Environmental Impact of Electronics and Electrical (AICON 2012), Jan. 20-21, organized by Chhatrapati Shivaji Institute of Technology, Bhilai, at Department of Electrical and Electronics Engineering, CSIT, Bhilai on 21.01.2012.
- Chaired a technical session of International Workshop on Advanced Material Science and Astrophysics (IWAMA), Feb. 19-21, 2012, organized by PRSU, Raipur and Michigan Technological University, U.S, at PRSU, Raipur, C.G.

- Chaired two technical sessions of UGC sponsored National Conference on Advances in Computing (NCAC 2012), Mar.16-17, 2012 ,organized by Computer Science Department , North Maharashtra University, Jalgaon at NMU, Jalgaon on 16/03/2012.
- Acted as member organizing committee. UGC sponsored National Conference on Managing Interpersonal Communication in Global World, Oct. 22-24,2010, jointly organized by SOS in Psychology, Pt. Ravishankar Shukla University, Raipur and Psycholinguistic Association of India (PLAI) at SOS in Psychology, Pt. Ravishankar Shukla University, Raipur, C.G., India.
- Acted as member organizing committee, UGC sponsored National Seminar on Examination Reforms ,7-9March 2011,organized by SOS in Psychology , Pt Ravishankar Shukla University Raipur, C.G.
- Acted as Organizing Secretary, International National Workshop on Advanced Material Science and Astrophysics (IWAMA), Feb. 19-21. 2012, jointly organized by PRSU, Raipur and Michigan Technological University, U.S.at PRSU, Raipur, C.G., India.
- Acted as Member, an Organizing Committee of Natioal Seminar on 'Role of Women in the Development of Nation in the New millenum', held during January, 09-11,2013, organized by Women Study Centre, PRSU, Raipur, CG, India.
- Acted as Member, an Organizing Community of Natioal Seminar on 'Rabindranath Tagore and Rural Development', held during February, 20-22, 2013, organized by Pt. Ravishankar Shukla University Raipur& State Resource (Adult and Continuing Education), Raipur, CG at PRSU, Raipur, CG, India.
- Conducted as Coordinator, a Refresher course in "Research Methodology in Basic Sciences" from June 01-21, 2013 at Academic Staff College, PRSU, Raipur, CG, India.(Letter no /1246/ASC/13, Raipur, dated May 03,2013.
- Acted as Chairperson in two technical sessions of International Conference on Eco Friendly Technologies in Electronics & Telecommunication for sustainable growth on 9th February, 2013 organized by Rungta College of Engineering and Technology, Bhilai, India.
- Organizing Secretary, National Conference on Recent Trends in Photonics, 12-14, 2014, SOS in Electronics & Photonics, Pt. RSU, Raipur.
- Delivered a Keynote address in AICON 2013 and chaired a Technical session in Electrical and Electronics Department, Chhatripati Shivaji Institute of Technology, Durg, C.G, India on13th April 2013.
- Delivered two Invited Lectures in AICTE sponsored Faculty Development Program (FDP) on Advances in Power System and Power Electronics in Electrical & Electronics Engineering, Chhatripati Shivaji Institute of Technology, Durg, CG, India, on 8th May 2013.
- Delivered an invited talk "Speech Signal Processing & its application" in the Short Term Course in Matlab programming and its engineering applications, Dec 26-30, 2013, NIT Raipur on 28<sup>th</sup> December 2013.
- Delivered an invited talk "Speech production, modeling and its application" in the National Workshop on "Application of MATLAB in Engineering & Interdisciplinary Area" on 9<sup>th</sup> January, 2014, College of Engineering and Management, Kolaghat, Purba Medinapur, West Bengal.
- Delivered an invited talk "Biometric and its applications" and chaired a technical session in the National Conference on "Emerging Trends in Electrical, Electronic Instrumentation &

Computer Engineering (ETEICE)" on 27/03/2014, at Bhilai Institute of Technology, Raipur CG.

- Chaired a session in Shaastrarth 14 an international conference on "Advanced Research applications in engineering and technology" on 24th March 2014 at Rungta College of Engineering and Technology, Raipur.
- Chaired a technical session in National Conference on Innovations in Material Science and Technology on 24<sup>th</sup> April 2015 organized by Department of Aeronautical Engineering and Department of Electronics & Telecommunication Engineering, MATS University, Raipur.
- Delivered a keynote address on the topic" Assessment of menstrual cycle and behavioral changes through speech signal processing" in AICON 2016 (All India Conference on Environmental Impact of Electronics and Electrical) and chaired a technical session in Electrical and Electronics Department, Chhatripati Shivaji Institute of Technology, Durg, C.G, India on 23th April 2016.
- Acted as Resource Person and delivered a talk on 6th august 2015 in the National Seminar on Recent Trends in Material Science, sponsored by UGC New Delhi, organised by Dr Radhabai Govt, Kanya Mahavidyalya, Raipur, CG.
- Acted as Convener, National Conference on Signal Processing, Sustainable Energy Material and Astronomy & Astrophysics, March 28-30, 2017, jointly organized by PRSU, Raipur and Luminescence Society of India at PRSU, Raipur, C.G., India.
- Delivered a keynote address on the topic" Assessment of hormonal and behavioral changes during menstrual cycle using speech signal processing" in AICON 2017 (All India Conference on Environmental Impact of Electronics and Electrical) and chaired a technical session in Electrical and Electronics Department, Chhatripati Shivaji Institute of Technology, Durg, C.G, India on 22nd April 2017.
- Chaired a Technical Session in National Seminar on Gender Norms & Gender Equality, February 6-8,2018 organized by Centre for Women's Studies, PRSU, Raipur and Oxfam India, at PRSU, Raipur, CG
- Invited for Guest Lecture under TEQIP-III and ISTE Student Chapter, delivered a lecture on "Speech Signal Processing" on 06/03/2019 from 2 pm to 5 pm in the Department of Electronics and Telecommunication Engineering, Govt Engineering College, Raipur, CG.(vide letter ET & T/No. 3682, Raipur, dated 05/03/2019)
- Delivered a keynote address on the topic "Cognitive radios and their role in efficient allocation of the spectrum" on 17<sup>th</sup> Foundation day & World Telecommunication & Information Society day celebration in The Institution of Engineers (India) Chhattisgarh State Centre, Raipur on 29<sup>th</sup> May 2019. (IEI/CSC/2019/226,dated,20.05.2019)
- Chaired a technical session on 18/10/2019 in National Symposium in Acoustics (NSA 2019) held during October 17-19, 2019 in Ravenshaw University, Cuttack, Odisha.

## Membership of Professional Bodies

- Senior Member, IEEE (Institute of Electrical and Electronics Engineers) No. 40281728.
- Life Member of ISTE (Indian Soc. for Technical Education) No.LM-23431
- Life member of Institute of Engineers, No.-M124017-4
- Life membership of Acoustical Society of India (ASI), No.LM 623
- Ex-Member of AES (Audio Engineering Society of India) member No. 52775

- Member APSIPA (Asia Pacific Signal and Information Processing Association) No. M110647.
- Member : Capacity Building of Women Managers in Higher Education , A UGC Programme
- Member , ACM (Association for Computing Machinery) ,no 8495774, from year 2018 till date
- Member VDGOOD Professional Association for the year July 2019-2020.
- Advisory Board member, International Institution for Science, Technology, Engineering and Management, issued on 09/07/2020, Membership ID: AB-IM 061120-140.

#### Administrative Responsibilities:

- Head , SOS in Electronics, Pt. R. S. S. University, Raipur (C.G.) from 01.11.06 to 24-06-10 and 01.08.2015 to 3.07.2018.
- Head , Department of Electronics/Electrical Engg. Deptt. of Univ. Inst. of Technology, Pt. R. S. University, Raipur (C.G.) from 28.08.04 to 30.06.06.
- Acted as Assistant Superintendent in Univ. Examinations and NET examinations (June 2006).
- Appointed as Assistant Superintendent, Second Shift, University Examinations at UTD, Pt.R.S, University, Raipur, C.G.(2006 & 2007).
- Member of Academic Council, Pt. Ravishankar Shukla University, Raipur (C.G.) from 01.11.06to 18-07-2011, 16/09/2014 to 15/09/2017.
- Chairman Board of Studies, Electronics, from 01.11.06 to 19.07.08, 27-10-2010 to 18-07-2011, 16 September 2014 to 16<sup>th</sup> September 2017 and member 29.01.1994 to 31.10.2006, 20.07.2008 to 26-10-2010, 16-092011 to 15-09-2014 and May 2015 to 29/10/2018.
- Member Board of Studies of M Tech in Optoelectronics & Laser Technology (Interdisciplinary Course in Physics & Electronics), from July 2008 to till date.
- Inspected Electronics / IT Departments of various colleges affiliated to Pt. R. S. University, Raipur (C.G.) for temporary affiliation as a member of Univ. Inspection team.

Appointed and inspected as a member of University inspection team for temporary affiliation of science subjects at St. Thomas College, Bhilai(2003), B.Sc. Electronics Part I, Govt. VYTPG Autonomous College, Durg, C.G.(Jan 2005), Karma Mata Arts & Commerce college, Jamgaon, Arang, C.G. (April 2006), Chhattisgarh Institute of Technology Rajnandgaon C.G. for Electronics & Telecommunication Branch(15th Dec 2006),Govt. VYT Autonomous College,Durg, C.G. (29th March 2007),Govt. P.G. College Jagadalpur, Dist-Baster, C.G. (July 2007),Kalyan College Durg (22/01/08) and Govt. Digvijay College Rajnandgaon, CG. (28/02/08),Govt. P.G. College Jagadalpur, Distt – Bastar (13th Sept. 2008), Govt. Digvijay College, Rajnandgaon, C.G. (27.11.2008) & Kalyan College, Bhilai, Durg (25.11.2008).

- Inspected The Vivekanand Shiksha Sansthan, Ramkrishna Paramhance Nagar, Kota, Raipur on 19/11/2014 as Member of the committee formed by VC, PRSU, Raipur for B.Ed. course .(2140/DCDC/2014,dt 18/11/2014)
- Inspected following affiliated colleges as Chairperson/Coordinator & Subject Expert, Inspection Committee, formed by Hon'ble V C,PRSU, Raipur –

Institute of Technology & Sciences, Gariaband, CG on 28.07.2018 for affiliation of (i) DCA (30 seat) New course,(ii) PGDCA (20 seat- increment) vide University letter no 6811/Acad/2018, Raipur, dated 25.07.2018 & ITS/Inst/2608, dated 26.07.2018.

CIT Science & Commerce College, Naya Raipur on 25.07.2018 for affiliation of New Courses (i) PGDCA (30 seat) & B. Com (40 Seats) vide letter no /CIT SC/1052/2018,date-24.07.2018 & University letter no 6799/Acad/2018, Raipur dated 24.07.2018

Govt PG College Mahasamund , CG on 28.11.2018 for affiliation of vide Ref no /1860/2018, Mahasamund, dated 26/11/2018 & University letter no /7093/Acad/affiliation/2018, Raipur dated 10.09.2018

• Appointed by CSVTU, Bhilai as subject expert and Inspected Electronics and Telecommunication department of BIT for recognition of the Electronics at approved place of research for carrying out research leading to PhD degree on 04/04/2008(CSVTU/Insp/08/417 dated-21/02/08).

Nominated by Vice Chancellor, Chhattisgarh Swami Vivekananda Technical University, Bhilai as subject expert and inspected Electronics and Telecommunication department of Shri Shankaracharya College of Engineering and Technology, Bhilai for recognition of Research Centre for Ph.D. degree on 05/10/10(Ref/CSVTU/Ph.D./2010/1998 dt 14/09/10)

Nominated by Vice Chancellor, Chhattisgarh Swami Vivekananda Technical University, Bhilai as subject expert and inspected Electronics and Telecommunication department of Govt Engineering College, Bilaspur for its recognition as CSVTU Research Centre for Ph.D. degree on 08/11/2019 (Ref No /GECB/TEQUIP/ET &T /2019/6139,Bilaspur, dated 06/11/2019)

- Inspected and evaluated five private colleges for the session 2009-2010 as member of three member team formed by V.C., Pt. Ravishankar Shukla University, Raipur, during month September October 2009 and submitted report as per prescribed format.
- Member of B.O.S. Electronics / Physics of the following Autonomous colleges :-
  - -Govt. VYT PG Autonomous College, Durg, Pt. Ravishankar Shukla University Raipur (C.G.) for year 2005-2008 (attended meeting on Feb 2005, Sept. 2005,22 Aug. 2008); from 06/02/2015 to 05/02/2018 for two years ; for year 2019-2021(attended meeting on 27<sup>th</sup> August 2019 vide letter no Endt/2010/Autonomous/2019,Durg, Dt 21/08/2019).
  - -Govt. P.G. Digvijay College, Rajnandgaon, C.G. (27.11.2008)
  - Govt. PG College, Ambikapur for two years w.e.f. 26.08.2008 to 25.08.2010.
- Attended as member Board of Studies in Engineering of Amity School of Engineering and Technology & Amity Institute of Information Technology, Amity University, Raipur Chhattisgarh on April 12,2017.
- Acted as subject expert in Electronics for recommending awards of Travel Grant to the Candidates by Chhattisgarh Council of Science and Technology, Raipur (C.G).
- As a subject expert, submitted two evaluation reports in the year 2004 and five in the year 2005, one on 23rd Jan 2006, one on 9th April 2008(1567/CGCOST/2008 dated 31/3/2008), two on 25.09.2008 & one on 13-08-09 to CCOST, Raipur for financial assistance in participation in International conferences.
- Extended services as subject expert to Chhattisgarh council of science and technology, Raipur, C.G. for publication of magazine, New Jigyasa Part I & II. (2004 and Dec. 2008).
- Appointed by CCOST, Raipur as a subject expert for review of on going Mini Research projects of Computer Science (2005).

- Attended as an observer (Representative of University) in an interview for assistant grade III on 19/11/2007 19/11/2007 at National Institute of Technology, Raipur C.G.
- Evaluated M.Tech thesis and conducted viva-voce at -BIT Durg (15-01-08), Shri Shankaracharva College of Engineering and Technology (18.10.2008), Rungta College of Engineering & Technology, Bhilai, (May 2009), Shri Shankaracharya College of Engineering and Technology (18-03-10 & 19-11-10), Rungta College of Engineering & Technology, Bhilai (Two thesis on 18-10-10) & Rungta College of Engineering & Technology, Bhilai (05/08/2011),02/02/2013 at Kargi Road Kota. Bilaspur, CG India (No/CSVTU/Exam/2012/624 dt 22/12/12,Ref no : RCET/Exam/2013/Bhilai Date : 28/01/2013), on 23/03/2013 at Rungta College of Engineering and Technology, Bhilai, CG, India (No / CSVTU/Exam/13/814 Bhilai, date 07/03/2013 & RCET /Exam/13/328 Bhilai to Swami Vivekanand Technical University, Bhilai, in Date 20/03/2013) affiliated Electronics, Shri Shankaracharya College of Engineering and Technology, CSVTU, Bhilai on 17/01/2015 (letter no CSVTU/Exam/2014/627, Bhilai, Date 30/09/2014), in Computer Science and Technology, Bharti College of Engineering and Technology, CSVTU, Durg on 22/03/2018 (No/CSVTU/Exam/2018/178.Bhilai,Dated 09/02/2018), in Electronics & Telecommunication Engineering, Shri Shankaracharya Technical Campus (SSTC), Shri Shankaracharya Group of Institutions (SSGI), CSVTU, Bhilai on 27/09/2018 (letter no /CSVTU/Exam/2018/1265.Bhilai.dated27/08/2018 & letter no /CSVTU/Exam/2018/1269,Bhilai, dated 27/08/2018)
- Evaluated M.Tech thesis and conducted viva-voce as subject expert in -

Computer Science, NIT Raipur on 8th July, 2013(letter no.1183/05/07/2013,CS Deptt), Electrical Engineering, NIT Raipur on 05/02/2015 (no NITRR/Exam Cell/2014/54.dt 22/01/2015 & No. NITRR/Electrical/Oral Exam/1452, dated 04/02/2015), Electrical Engineering on 16/12 2016 (No NITRR/Exam Cell/616/2016 dated 14/12/2016 & No NITRR/Exam Cell/617/2016 dated 14/12/2016),Electrical Engineering, NIT Raipur on 02.08.2018 vide letter no (i) NITRR/Exam Cell/522/2018 dated 23.07.2018 (ii) NITRR / Exam Cell/523/2018 dated 23.07.2018 (iii) NITRR / Exam Cell/524/2018 dated 23.07.2018.

• Appointed as external examiner for Ph.D. Thesis evaluation and conduction of Viva -voce in Electronics Engineering under the faculty of Engineering of Barkatullah University, Institute Technology, Bhopal (Conducted viva 18/03/2015 vide of voce on letter no.2606/Ph.D/config/15 Bhopal. dated 19/02/2015 & 2509/Electronics/467-13/Ph.D./University, Bhopal, date 04/02/2015), in Computer Science under the faculty of Science of North Maharashtra University, Jalgaon, MS (Ref No:NMU/11/Ph.D./Com. Sc./911/16, dated 30/03/2016), in Electronics Engineering under the faculty of Engineering of RTM Nagpur University, Nagpur ( conducted Ph.D. Viva Voce on 6th Feb,2016vide letter no. Ph D Cell/582, Dated 5/01/2016 & no ph D Cell/652, dated 25/01/2016), in Electronics Engineering under the faculty of Engineering of RTM Nagpur University, Nagpur (Conducted viva-voce for ME through Research on 1st April 2016 vide letter no. Ph D Cell/756, Nagpur, dated 16/03/2016), in Electronics under faculty of Science of RTM Nagpur University, Nagpur (Conducted viva-voce on 8th April 2017 vide letter no. Ph D Cell/3632 ,Nagpur, dated 10/03/2017), in Computer Science & IT under the Faculty of Information Technology and Computer Application of Dr C V Raman University, Kargi Road, Kota, Bilaspur on 05.02.2019 (Ref No. 5307/CVRU/Ph.D./2019), in Electronics under the faculty of Science, Rani Durgavati Vishwavidyalya, Jabalpur, MP ( No/confidential/Research/2019/243 Jabalpur, Dated 11/9/2019), in Computer Engineering under the faculty of Technology, Mumbai University on 13th December 2019 (No. Th./ICD/2018-19/41702,14th Jan 2019).

- Appointed by Pt. R. S University, Raipur as subject expert in Electronics and conducted an interview under section 28 at Pt.R.S.University Raipur, for the recruitment of post of Assistant Professor in Electronics of Kalyan P.G. College, Bhilai on 19-05-2009, Chhattisgarh Kalyan Education College, Nandini Road, Durg (J C W) on September 2009 (95/Acad/2008 dated 30-04-08),St.Thomas College, Ruaa Bandha, Bhilai on 02-02-10(8808/Acad/selection/2010,Raipur dated 03-01-10), Bhilai Mahilavidyalya,Bhilai Nagar (23-02-11), St. Thomas Collage, Bhilai on 24/08/2012 (STC/Interview/2012 dated 31/07/2012 & No 7908/Acad/sel/2012/dated : 25/07/2012.
- Appointed by Pt. R. S University, Raipur as subject expert in Computer Science and conducted an interview under section 28 A, at Pt.R.S.University Raipur, for the recruitment of post of Assistant Professor in Computer Science of Netaji Subhash Mahavidyalya, Gram Bel Bhatha, Abhanpur Dist. Raipur on 09-12-2009 (8337/Acad/ Selection/09/Raipur dated 24-11-2009), Kalyan P.G. College, Bhilai Nagar, Durg on 04-02-2011 (8865/Acad/Selection/2010 Raipur date 20-11-10) and Bhilai College of IT, Bhilai on 19/07/2012 (D.No./SC IT dt 13/07/12 & 7623/Acad/Selection/2012,Raipur,Date 25/06/2012)
- As VC nominee, conducted interviews for Assistant Professor Under Section 28 in the subject Computer Science, Disha College, Raipur, CG on 28/09/2018 (University letter no 7065/Acad/Selection/2018 dated 07/09/2018 & DC letter dated 24/09/2018 )
- Attended as an academician, appointed by VC, PRSU, Raipur, an interview board for recruitment of Assistant Professor in Computer Science under section 28 'A' for Science College, Sector 6, Bhilai, Bhilai on 05/10/2012 at Science College ,Sector 6,Bhilai , CG, India. (Ref No.SM /2012/ 2060 dated 26/09/2013), in Computer Science, Roopchand College "Bagaijur, Saraipali, Mahasamund, on 30/04/2013 (9821/Acad/selection/2013, Raipur, date 11/03/2013 & 1105/Selection/section 28/2013 dated 02/01/2013), in Physics on 19/09/2013, Gurukul Mahila Mahavidyalya, Raipur, in Computer Science on 26/10/2013, Mahatma Gandhi Mahavidyalya, Raipur (11639/Acad/selection/2013,19/8/2013 & Ref no MGC/1449 dt 25/09/2013), in Computer Science, 06/12/2013 Vipra College, Raipur.( Letter no/12005/Acad/selection/2013 dt 18/09/2013, Raipur & 3089/V C/Acad/2013 dt 26/11/2013), in Computer Science, Alshums Infotech College, Nagri, Dist Dhamtari on 03/01/2014( no 12692/Acad/Selection/2013 dt 29/11/2013, Raipur), in Computer Science, Vivekanand Mahavidyalya, Durg Education Academy, Raipur on 14/02/2014 (VM/App/190/2014, 28/01/2014), in Computer Science on 08/07/2014, Maharaja Agrsen International College, Raipur, in Computer Science on 02/07/2014 ,Central College of IT, Fafadih, Raipur,CG, in Computer Science on 07/01/2015, Pragati College ,Raipur.( Letter no/2177/Acad/Recruit/2014 dt 12/12/2014, Raipur & PCR/4892/dated 22/12/2014), in Computer Science on 15/01/2015, Platinum College of Professional Studies, Raipur .( no 2208/Acad/Recruitment/2014 ,Raipur dt 16/12/2014 & PCPS/RSU/Jan 15/528, Raipur dt 12/01/2015), in Computer Science on 16/02/2015. Rungta College Science Technology. GD of & Bhilai (no 2536/Acad/Selection/2015, Raipur dt 21/05/2015 & GDRCST/15/3908, dt 12/02/2015), in Computer Science on 24/02/2015, MJ College, Kohka, Bhilai, Raipur ( No. 2536/Acad/Selection/2015, Raipur, dated 21/01/2015 & no 2581/Acad/selection/2015, Raipur, Dt 24/01/2015), in Computer Science on 25/02/2015, Seth Phoolchand College, Rajim, in Computer Science on 03/03/2015, Comptech College, Dhamtari, in Education on 15/03/2015, Saildevi Mahavidyalya, Anda, Durg, in Physics on 02/01/2017, Seth Foolchand Agarwal Smriti College, Navapara, Rajim (college letter no 4394/16,dated 19/12/2016,PRSU Letter no 2882/Acad/2016/Raipur dated 17/11/2016 and 2560/Acad/Selection/2015 Raipur, dated 22/01/2015)
- Nominated by Hon'ble V.C. of Pt. R. S. Univ., Raipur as member, Governing body of Chhattisgarh Kalyan Shiksha Mahavidyalya, Nandini Road , Ahiri , dist. Durg and Ahiri

attended the meeting on 18-08-10 at Chhattisgarh Kalyan Shiksha Mahavidyalya, nandini Durg (no.9 college/045 dt. 07-08-10), Agrsen Mahilamahavidyalya road dist. Dhanora, Durg, & Seth RCS Art & Commerce College, Durg, for two years from 06/09/2011 to 05/09/2013. Attended meeting at on 30/07/2012 at Agrsen College, Dhanora, Durg., CG, India. (Ref. no. ACI 2012/284, dt 28/07/2012 and 4740/Acad/2011/date 06/09/2011), Seth RCS Arts & Commerce Mahavidyalva, Durg, under section 28 Art. III 16(1) C, on 22/10/2012 at Seth RCS Arts & Commerce Mahavidyalya , Durg ,India (Letter No 261/2012,Durg,dated 08/10/2012), Agrsen College , Dhanora , Durg, CG, India 05/03/2013 ( no 47A0/Acad/2011/date 06/09/2011 & Ref no AC/2013/358A, AC/2013/359B), Seth RCS Arts & Commerce Mahavidyalya, Durg ,India, on 09/03/2013 (Univ letter No. /Acad/2011date, Ref n0 416/2013, Durg, date 27/02/2013), Agrsen College Dhanora, Durg on 17th July, 2013 ( Ref no AC/2013/439, dt 10/7/2013 ), G S Arya Kanya Mahavidyalya, Durg, CG on 22/12/2014 (Letter no.13089/Acad/2014, Raipur dated 09/01/2014 & 375/14 dated 9/12/2014), Gurukul Mahila Mahavidyalya, Kalibadi, Raipur, CG on 18/04/2018(letter no 969/18, Raipur, dated 12/04/2018).

- Nominated by Chhattisgarh Swami Vivekananda Technical University Bhilai as subject expert in the selection committee and conducted an interview for the selection of teachers/Faculty in the department of Electronics and Telecommunication Engineering at Shri Shankaracharya College of Engineering and Technology, Bhilai on 13-07-2009, Ashoka Institute of Technology and Management, Rajnandgaon on 01-12-09 (CSVTU/Interview/2009/3692 dated 05-11-09), Raipur Institute of Technology, Raipur (CSVTU /interview/2009/3A dated 03/07/09),
- Appointed by Hon'ble VC, CSVTU, Bhilai, as subject expert for conduction of interviews for Temporary Faculty (M. Tech Microelectronics & VLSI), Ref No. CSVTU/Acad /2017 / 6117 Newai-Bhilai, dated: 02.08.2017;

Appointed by Hon'ble VC, CSVTU, Bhilai as subject expert in interview panel for contractual positions of Assistant Professor (M Tech VLSI & Micro Electronics) & conducted interview on 22.09.2018 vide Ref no CSVTU/Acad 2018/2165 dated 11.09.2018.

Appointed by Hon'ble V C of CSVTU, Bhilai as an External Subject Expert in the selection Committee for the positions of Assistant Professor in the Department of Microelectronics and VLSI and conducted interview on 9/7/2019 in the Vice Chancellor office, Bhilai, CG.(No. CSVTU/Acad/2019/2063, Dated 3/7/2019).

- Appointed by Hon'ble V.C. of Chhattisgarh Swami Vivekananda Technical University Bhilai as External Subject Expert of the RRPC (Research Program Review Committee) in Electronics & Telecommunication Discipline and attended RRPC meeting on 17-11-10 & 05/08/2011 at Chhattisgarh Swami Vivekananda Technical University Bhilai.
- Appointed by Hon'ble V C of CSVTU, Bhilai as Chairperson of the board of Interview for selection of candidates for Ph D program in Electronics and Telecommunication Discipline and conducted interview on 23/06/2019 in the VC Office, CSVTU, Bhilai. (1763/CSVTU/Ph D/Bhilai-Newai, Dated 11/6/2019)
- Member of DRC (Department Research Committee) as per Revised Ordinance 45 for Ph.D. program from 26-07-2010 till date.
- Acted as a member Lab Visit Committee of DST Inspire Internship Summer Camp held during 06-10 June 2011 at Pt. R.S. Univ., Raipur. (Letter no. 2173/Gen. Admin/2011, Raipur, dt. 28-05-2011), DST Inspire Internship Summer Camp, 26-30 Dec 2014, at Pt. R.S. Univ. Raipur, 19<sup>th</sup> DST –INSPIRE Internship Camp held during August 6-10,2019 at PRSU, Raipur (vide letter no 2083/GEN Adm/INSPIRE/F-61/2019 Raipur dated 22/07/2019)

- Facilitated U.I.T. to establish Electronics lab, Electrical lab, teaching etc., equals responsibility of HOD Electronics/Electrical Deptt. of U.I.T. ,Pt. R.S. University, Raipur (C.G.), from 28.08.04 to 30.06.06.
- Supervised the preparation, compilation and printing of a laboratory manual of Basic Electrical Engg lab for BE 1st semester students of UIT, Pt. R.S. Univ, Raipur, CG, in Nov.2004.
- Attended a meeting of Research Degree Committee (RDC) in Electrical Engineering as External Committee member, appointed by VC ,Dr. C V Raman University, Bilaspur, on 10/07/2012 at Kargi Road Kota, Bilaspur, CG. India (Ref no./CVRU Ph.D/out/09/2012, dated 30/06/2012).
- Acted as Member Selection Committee of Engineering-Electrical on 3rd August, 2015 at ITM University, Raipur, CG.
- Acted as member selection committee for recruitment of Assistant Professor (on contract) for TEQUIP Institutions in the Department of Biomedical Engineering at NIT Raipur on 13<sup>th</sup> December 2017.
- Appointed and acted as member EVC Committee, participated in Expert Committee for visit on Date 4-APR-2018 to, KOLKATA (MEGA CITY) SOUTH 24 PARGANAS West Bengal -700019 by AICTE New Delhi
- Acted as member Advisory Committee of Electrical and Electronics Department, Chhatrapati Shivaji Institute of Technology, Durg since 10<sup>th</sup> December 2016 till date.

#### LIST OF PUBLICATIONS

#### I. Research Papers Published in International Journals

1 Image Enhancement of nano tube: smoothing and sharpening.

G.R. Sinha and Kavita Thakur,

International Journal of Nano Technology and Applications,1,No.2,13-20(2007). ISSN: 0973-631X,Research India Publicatio,New Delhi.

2 Image Filtering and Analysis of semiconductor material.

G.R. Sinha and Kavita Thakur, M. K. Kowar

International Journal of Nano System(IJNS), Vol.1, no.2, 179-182, July – December (2008). ISSN : 0973-7332, Serial Publication, New Delhi.

3 Enhancement of AFM image artifacts.

G.R. Sinha and Kavita Thakur, M. K. Kowar

International Journal of Nano System (IJNS) Vol.1, no.2, 141-145, July – December (2008). ISSN : 0973-7332, Serial Publication, New Delhi.

4 Fingerprint image processing-Enhancement, minutiae extraction and matching.

G.R. Sinha and Kavita Thakur, M. K. Kowar

International Journal of Engineering Research and Industrial Application (IJERIA), Vol.1,No.III,61-77 (2008).ISSN : 0974-1518, Ascent Publication, Pune.

5 Image Enhancement in spatial domain by using LOG Operator

Vikrant Thakur ,G.R. Sinha,Kavita Thakur.

International J.of Applied Engineering Research, (IJAER), Vo 3,No.4,539-456 (2008).ISSN : 0973-631X,Research India Publication , New Delhi.

6 Performance of JPEG 2000 Image Compression Technique: A Case Study.

Bheshaj Kumar, Kavita Thakur.

International Journal of Image Processing and Applications (IJIPA), Vol. 1, No.1, 33-36(June 2010). ISSN : 0975-8178, International Science Press, Gurgaon, Haryana.

7 Avoidance of confusion between similar looking characters in Neuro-Fuzzy based License Plate recognition.

Choubey Siddhartha, Sinha G.R., IEEE / IACSIT Member, Patel Bagwati Charan, Choubey Abha, Thakur Kavita, IEEE Member

International Journal of Machine Learning and Computing (IJMLC), Vol. 1, No. 4, 394-399,October 2011, ISSN : 2010-3700, International Association of Computer Science and Information Technology Press (IACSIT).

8 Early Detection of Breast Cancer using a Modified Topological Derivative Based Method

Bhagwati Charan Patel, G.R.Sinha and Kavita Thakur

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#### **Book Published**

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Author- Kavita Thakur & A. S. Zadganokar

**Publisher** - Lab LAMBERT academic Publishing GmbH & Co.KG, Germany, pages 308, Published on 13-12-2011, ISBN 13- 978-3-8465-4338-2, ISBN 10-3846543381, EAN-9783846543382.

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04 Title of Edited Book-Computational Intelligence and Applications for Pandemics and Healthcare

Editors- Sapna Singh Kshatri, Bharti College of Engineering and Technology, India; Kavita Thakur, Pt. Ravishankar Shukla University, India; Maleika Heenaye Mamode Khan, University of Mauritius, Mauritius; Deepak Singh Bennett University, India; G. R. Sinha, Myanmar Institute of Information Technology, Mandalay, Myanmar

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Prof.YosryMorsi,Swinburn,UniversityofTechnology,AustraliaProf.Anupam Shukla, Institute of Information Technology andManagement, Gwalior, India& Chandra Prakash Rathor, Institute of Information Technology andManagement ,Gwalior, IndiaIndiaIndiaInformation Technology and

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2 **Title of the Book-**Recent Advances in Circuit Systems, Signal Processing and Communications (Recent Advances in Electrical Engineering Series- 59)

Editor: Prof Valeri Mladenov, Technical University of Sofia, Bulgaria

**Book Chapter:** A Novel Type-2 Fuzzy Directed Hybrid Post Filtering Technique for efficient JPEG Image Artifact Reduction

Authors: Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta

Pages: pp 125-134, ISBN : 978-1-61804-365, ISSN: 1790-5117 Publisher: WSEAS Press,www.wseas.org, Barcelona, Spain, February 13-15, 2016.

3 **Book Chapter-** High-Quality Medical Image Compression using Discrete Orthogonal Cosine Stockwell Transform and Optimal Integer Bit Allocated Quantization Author- Vikrant Singh Thakur, Dr Kavita Thakur, Dr Shubhrata Gupta

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Publisher: IOP Science ,Bristol, UK

ISBN: 978-0-7503-2708-7(e book); 978-0-7503-2708-3(print); 978-0-7503-2708-4(my print); 978-0-7503-2708-0(mobi)

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Authors: Sunandan Mandal, Manvendra Nath Thakur, Kavita Thakur, Bikesh Singh

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Authors: Shruti Sharma, Ajou University, Suwon, South Korea, Gulab Singh Verma, Pt. Ravishankar Shukla University, Raipur, India, Kavita Thakur, Pt. Ravishankar Shukla University, Raipur, India

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Book Chapter 8: Study of Behavioral Changes and Heart Rate Variability Through Speech Signal Analysis in COVID-19 Patients

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9 Title of Book: Cognitive Sensing Technology and applications

Editors: Dr G R Sinha, Adjunct Professor, International Institute of Information Technology Bangalore (IIITB),India, Dr Bidyadhar Subudhi, Professor and Dean, Electrical Engineering Department, Indian Institute of Technology Goa, India, Dr Chih-Peng Fan, Professor, Communication IC & Signal Processing Lab, National Chung Hsing University, Taiwan, Dr Humaira Nisar, Professor and Head of the Master of Engineering Programme, Department of Electronic Engineering, Universitiy Tunku Abdul Rahman, Kampar, Perak, Malaysia

Book Chapter: Cognitive IOT Sensors for Smart Industrial Application: Healthcare and Automation

Authors: Shruti Sharma, Prafulla Vyas, Kavita Thakur, Ganesh R. Sinha, Ashutosh Sharma

Publisher: Accepted for publication in The IET International Book Series on Sensors.

#### UGC Sponsored Refresher and Orientation Courses attended

- 1 Refresher course in Physics (Digital Electronics and Micro Processors), 08.02.1999 to 27.02.1999, Organized by Academic Staff College, Rani Durgavati Vishwavidyalaya, Jabalpur, M.P.
- 2 Orientation course, 31.05.1999 to 27.06.1999, Organized by Academic Staff College,

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