

## **BRIEF PROFESSIONAL INFORMATION ABOUT Dr. KRISHNA SINGH**

### **1. CONTACT ADDRESS:**

Dr.(Smt.) KRISHNA SINGH  
Associate Professor in Electronics and Communication  
Engineering  
Email- [singhkrishna5@gmail.com](mailto:singhkrishna5@gmail.com)  
[krishnasingh5@rediffmail.com](mailto:krishnasingh5@rediffmail.com)

### **2. (a) DATE OF BIRTH:**

1 JUNE 1969

**(b) DOMICILE AND PLACE OF BIRTH:** M.P, JABALPUR

**TOTAL PROFESSIONAL, ACADEMIC, RESEARCH EXPERIENCE- 21 years on 4<sup>th</sup> July 2015**

### **3. PROFESSIONAL QUALIFICATIONS:**

- **Ph.D.** from **Indian Institute of Technology Roorkee**, Uttarakhand. In Feb 2013  
*Title of the PhD thesis* - Image Classification for Plant Leaves. Three classifiers are developed for Shape based image classification. Moment based techniques, hybrid techniques of PNN-PCA and machine learning based SVM-BDT Classifiers.  
**Name of Guide- Dr. Indra Gupta**
- **M.Tech.** in Electronics, specialization in Digital system from **Motilal Nehru National Institute of Technology, Allahabad** in Feb 2003, with 67%  
*Title of the M.Tech Dissertation* – Performance Analysis of the Optical Multistage Interconnection Network  
**Name of Guide- Dr. Sudarshan Tiwari**
- **B.E.** Electronics & Telecommunication from **Rani Durgawati Vishwavidyalaya, Jabalpur**, M.P. in 1991, with 65%
- **Main Subject taught:** Electronics & Communication Engineering, digital system and Information Technology

### **4. FIELDS OF SPECIALISATION & PROFICIENCY:**

- **Expertise in :-** Digital Communication Systems, Image and Signal Processing, Computer Communication and Networking, Computer Architecture, Network Security
  - **Broadly Proficient in the following areas of Engineering :** Electronics and Communication Engineering, Information Technology
- 5. CURRENT POSITION-** Associate Professor in Electronics & Communication Engineering, in G. B. Pant Engineering College. Pay scale 37400-67000 AGP 9000
- 6. POSITIONS HELD:**
- 7.** Lecturer in Electronics & Communication Engineering, Technical Education, and Training Department M.P. Govt. Bhopal. Pay scale 37400-67000 (Basic - Rs 47960 with AGP 9000 from 16 Sep 2006 to contd..)
- **Lecturer, School of Information Technology, Rajiv Gandhi Technical University, Bhopal** M.P. Pay Scale 15600-39100 (Basic – Rs. 31230 with AGP 8000 from Sep 2003- Sep 2006)

- Lecturer, Electronics & Communication Engineering, under Technical Education, and Training Department M.P. Govt. Bhopal. Pay Scale 10000-15200 (Basic – 11300 July 1994 to Sep 2003).

## 8. RESEARCH SUPERVISION AND GUIDANCE:- 19 M. Tech. Dissertation ,

### List of M. Tech. Thesis Supervised

1. K. Durga Prasad, Video Stenography
2. Vinod P., Application and Network Monitoring Tool
3. A. Venkeeta Prashanth, Implementation of Concurrency control in OODBMS
4. Bhupesh Gaur, Fast Fingerprint Identification system using minute matching with back propagation neural network and self organizing map
5. D.V.Sita Rama swami, Implementation of crash recovery in OODBMS
6. H.S. Chouhan, Dual Transport HTTP Protocol for web Traffic
7. Nitin nagpure, Distributed computing using JAVA based Framework
8. Shailendra jain, Design and Implementation of Object Oriented Data warehouse
9. Sini Joseph, Enhancement of Image processing Techniques for restoration of historical Document
10. Amita Khare, Performance Analysis of Hindi Machine Print Character Recognition using Artificial neural networks
11. Rakhi Shrivastav, Recognition of English Machine Print character by artificial neural network
12. Prakash Kumar Singh, Credit card and fraud detection using neural network
13. Mukesh Meena, Study of secure ADHOC Routing protocols for mobile wireless Networks
14. Vivek Nagal, Security Enhancement to AODV using SAODV and Future solution to the delay factor
15. Ruchi Saxena, Enable Voice Over Data networks through VOIP
16. S.B. Amareswara Reddy, Design of Dynamic Hopfield networks for Pattern Recognition
17. Virendra Kumar Shrivastav, Frequent pattern lattice algorithm for mining Association Rules.
18. Anurag Shrivastav Wavelet based Diagnosis for the analysis of Leprosy Disease using the Fuzzy logic.
19. Amit Gupta, Clustering of color nodes using self organization Map

## 9. PUBLICATIONS

### Papers published in Journals

1. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Plant species classification by leaves using neural network,” *International Journal of Electronics and Computers*, 2010, vol. 2, No.1 pp 51-58, ISSN:0975-3796
2. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “SVM-BDT PNN and Fourier moment technique for classification of leaf shape,” *International Journal of Signal Processing, Image Processing and Pattern Recognition*, 2010, vol. 3, No. 4, pp. 67-78, ISSN:2005-4254
3. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Classification of Bamboo Species by Fourier and Legendre Moment,” *International Journal of Advanced Science and Technology* vol. 50 ,2013 pp. 61-70, ISSN: 2005-4238

4. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Discrimination of Bamboo species by shape descriptor of Culm sheath,” *Journal of Indian Forester*, 2013, vol.139, 2013, no.2, pp 126-130, ISSN:0019-4816

#### **Papers Published in Book Chapters**

5. **Krishna Singh**, Indra Gupta, Sangeeta Gupta, “Classification of leaf image using image moment based classifier”, *Information technologies and Energy Management*, pp 391-398, Excel India Publisher New Delhi (2010) (ISBN: 978-93-80697-07-9).
6. **Krishna Singh**, Surendra Singh, “Comparisons of three classifier for classification of Bamboo Plant”. *Advances in intelligent and soft computing. Vol. 132*, 2012, pp 795-802. ISSN: 1867-5662 (Print) 1867-5670. **Springer**

#### **Papers Published in Proceeding of International Conferences**

7. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Plant Species Classification by leaves using neural network,” *International conference on trends and Advancement in Electronics and Computer*, 25-26 Feb 2010, pp 51-58,
8. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Comparison of PNN-PCA with SVM-BDT and Moment based technique for leaf shape recognition and classification,” *International Conference on Image Processing Computer Vision, & Pattern Recognition, Las Vegas, USA*, 12-15 July 2010, ISBN:1-60132-152-X,1-60132-153-8,1-60132-154-6 printed at USA
9. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Retrieval and classification of leaf shape by Support Vector Machine using Binary Decision Tree, Probabilistic Neural Network and Generic Fourier Moment technique a comparative study,” *International conference on computer graphics, visualization, computer vision and image processing (CGVCVIP), Friburg Germany* 27-29 July, 2010 ISBN: 978-972-8939-22-9.
10. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “A Comparison of 2D Moment based description techniques for classification of bamboo plant” *In proceeding of IEEE International Conference on Computational Intelligence and Communication Network*, Gwalior, 7-9 October 2011, pp 15-20, ISBN no. 978-0-7695-4587-5
11. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Classification of bamboo plant based on Digital Image Processing by Central moment,” *In proceeding of IEEE International Conference on Image Information Processing (ICIIP 2011)*, wagnaghat, India, 3-5 Nov 2011, 978-1-61284-860-0/11/\$26.00 ©2011 IEEE.
12. **Krishna Singh** and K.Drگا Prasad, “Video Steganography” *Glogift/fifth global conference on flexible system management*, 2005.
13. **Krishna Singh** and Bhupesh Gaur, “Fast Fingerprint Identification system using minute matching with back propagation neural network and self organizing map “*Glogift/fifth global conference on flexible system management*, 2005.
14. **Krishna Singh**, Nitin Nagpure and Mahesh Motwan, “B2C architecture using web service and improving reliability through java Messaging service” (AACC) *Third international conference on innovative application of information technology for developing world*, Asian Applied Computing Conference 2005.

### **Papers Published in Proceeding of National Conferences**

15. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Classification of leaf image using image moment based Classifier”, *Sixth national Conference on Advancement of Technologies ‘Focus 2010 ‘ Information Technologies and Energy Management*, 20-21 Feb 2010
16. **Krishna Singh**, V.K. Shrivastav and K.R Pardarshani, “Frequent pattern lattice algorithm for knowledge Discovery of cardiac care” AICTE Sponsored National conference on advance in Electrical Engineering (AEE). 2006.
17. **Krishna Singh** and Mukesh Mena, “Study of secure ADHOC Routing protocols for mobile wireless Networks” National conference on Engineering and Pharmacy, 2006.
18. **Krishna Singh** and Vivek Nagal, “Security Enhancement to AODV using SAODV along with integration of MANET with WiMax” AICTE Sponsored National conference on advance in electrical engineering (AEE), 2006
19. **Krishna Singh** and S.B. Amreshwara Reddy, “Design of dynamic associative memory” National Seminar on IT Enabled Systems, 2007.
20. **Krishna Singh** and Prakash Jha, “Credit card and fraud detection using neural network” National Seminar on IT Enabled Systems, 2007
21. **Krishna Singh** and Ruchi Saxsena “Voice-Over-IP: The Future of Communication” National Seminar on IT Enabled Systems, 2007
22. **Krishna Singh** and A. Venkeata Prashanth “Implementation of concurrency control in object oriented databases” National Seminar on IT Enabled Systems, 2007.

### **Papers Presented in Conferences**

23. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Classification of leaf image using image moment based Classifier”, *Sixth national Conference on Advancement of Technologies ‘Focus 2010 ‘ Information Technologies and Energy Management*, 20-21 Feb 2010.
24. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Plant Species Classification by leaves using neural network,” *International conference on trends and Advancement in Electronics and Computer*, 25-26 Feb 2010, pp 51-58,
25. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Comparison of PNN-PCA with SVM-BDT and Moment based technique for leaf shape recognition and classification,” *International Conference on Image Processing Computer Vision, & Pattern Recognition, Las Vegas, USA*, 12-15 July 2010, ISBN:1-60132-152-X,1-60132-153-8,1-60132-154-6 printed at USA
26. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Retrieval and classification of leaf shape by Support Vector Machine using Binary Decision Tree, Probabilistic Neural Network and Generic Fourier Moment technique a comparative study,” *International conference on computer graphics, visualization, computer vision and image processing (CGVCVIP), Friburg Germany* 27-29 July,2010 ISBN: 978-972-8939-22-9.
27. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “A Comparison of 2D Moment based description techniques for classification of bamboo plant” *In proceeding of IEEE International Conference on Computational Intelligence and Communication Network*, Gwalior, 7-9 October 2011,pp 15-20, ISBN no. 978-0-7695-4587-5
28. **Krishna Singh**, Indra Gupta, Sangeeta Gupta “Classification of bamboo plant based on Digital Image Processing by Central moment,” *In proceeding of IEEE International Conference on Image Information Processing (ICIIP 2011)*, wknaghat, India, 3-5 Nov 2011, 978-1-61284-860-0/11/\$26.00 ©2011 IEEE

#### 10. AS REVIEWER -

1. "Priority Job Scheduling in Android Operating System" for BEIAC 2013.
2. Wu Jiang<sup>1</sup>, Hanglin Xu<sup>1</sup>, Heqiang Lou<sup>1</sup>, Jingjing Lou<sup>1</sup>, Mantri Nitin<sup>2</sup> & Hongfei Lu<sup>1</sup>, 'Camellia (Theaceae) classification with support vector machines based on fractal parameters and red, green, and blue intensity values of leaves in ([sekj@helsinki.fi](mailto:sekj@helsinki.fi)).in Annales Botanici Fennici
3. "Hybrid Technique Approach for Bird Flu Detection Using Fuzzy Expert" for CHUSER 2012.
4. Audio-Based Phatic Technology: Lessons Learned from Technological Breakdown Episodes' shusher 2013.
5. Salman Manzoor, Kamran Manzoor, Umar Manzoor, 'Context Aware Monitoring Scheme (CAMS) for Detection and Mitigation of Blackhole Attack in MANETs' in Shusher 2013.
6. Tetra-Band Modified Koch Fractal Antenna with Asymmetrical Ground Plane for Telemedicine Applications in Electromagnetic Biology and Medicine

#### 11. SHORT TERM COURSES/TRAININGS /WORKSHOPS ATTENDED

1. Induction course (technical teacher's training) Phase-I 3-7-95 to 28-07-95 at **TTTI Bhopal M.P.**
2. Industrial course (technical teacher's training) 31-07-95 to 17-11-95 at **TTTI Bhopal M.P.**
3. Induction course (technical teacher's training) Phase-II 23-11-95 to 15-12-95 at **TTTI Bhopal M.P.**
4. Training Program on 'Power Electronics' from 07-07- 96 to 18-07-96 at **GEC Jabalpur M.P.**
5. STTP on 'Human values in Technical Education' from 20-03-02 to 24 03-02 at **MNREC Allahabad U.P. .**
6. National Workshop on 'Preparing Young Minds for Enterprising Future' on 9th April 2005 at **MANIT Bhopal**
7. QIP short term course on 'Fundamental of Wired and Wireless Networks' from 09-05-2005 to 13-05-2005 at **IIT Kanpur.**
8. TEQIP Workshop on 'Information security' from 19-12-2005 to 23-12-2005 at **MANIT Bhopal M.P.**
9. SDP on 'Application of Artificial Intelligence in Biomedical Engineering' from 15-02-2007 to 28-02-2007 at **MITS Gwalior M.P.**
10. Training Course on 'Embedded System Design' from 04-06-2007 to 08-06-2007 at **CRISP Bhopal M.P.**
11. QIP short term course on 'Digital Signal and Image Processing' on 10-12-2007 to 14-12-2007 at **IIT Roorkee.**
12. Workshop on 'Web of Science'-As a Research Tool' on 20-11-2008 organized by Central Library, **IIT Roorkee.**
13. Workshop in "Energy Conservation and Renewable Energy" 13-15 March 2013 at **Sardar vallabhnbhai polytechnic college Bhopal M.P.**

**14.** Training Programme on Bharat Operating System Solution 25-26 March 2013, organized by Centre for Development of advance Computing Mohali (C-DAC) at **Sardar vallabhbhai polytechnic college Bhopal M.P.**

**15.** Application of MATLAB for Engineering Computation 20-21 April 2013 at **IITDM Jabalpur.**

**16.** Training programme on Quality Management Standard and quality Technology Tools for Polytechnics 15-19 July 2013 , organized by **NITTTR BHOPAL AND QCI, NEW DELHI**

**12. CERIFICATE OF APPRECIATION:**

Worked as a volunteer in National system conference held at Electrical Engineering Department, **IIT Roorkee on 17-19 Dec 2008.**

**13. WORKSHOPE ORGANISED:** “Mobile Communication”

**14. ADMINISTRATIVE EXPERIENCE-**

- i. HOD CSE at G.B.Pant Engineering college
- ii. In-charge HOD in Electronics Department since OCT 2013 to June 2013,
- iii. Work as Chairman in LAN Management committee.
- iv. Member in Anti ragging committee,
- v. Member in Cultural committee.
- vi. Works as a member in RUSA Project

**Signature**