

# CURRICULUM VITAE

## AMANDEEP SINGH

H.NO. 48,MOHALLA RANJIT NAGAR, NEAR ITI,

DISTT. HOSHIARPUR.

STATE: PUNJAB

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### Objective:

Seeking a position to utilize my skills and abilities in the Electronics and Communications Engineering field that offers professional growth while being resourceful, innovative and flexible.

### Personality Traits:

Comprehensive problem solving abilities with good written and verbal communication skills. Ability to deal with people diplomatically, willingness to learn, team facilitators with tremendous managerial skills.

### Qualifications:

- **Ph.D. in Electronics & Comm. Engg.** from SLIET, Longowal, Sangrur. The research title is “Design and optimization of high speed patch antennas for broadband communication systems” in the year 2016.
- **M.Tech. (AICTE Approved) in Electronics & Comm. Engg.** from Guru Nanak Dev Engineering College, Ludhiana, With aggregate marks 73.18%. Thesis work accomplished under topic of **VLSI Circuit Partitioning using PSO** in the year 2010.
- **A.M.I.E. in Electronics & Comm. Engg.** From Institution of Engineers (India), Kolkata with First Division (61%) in the year 2003.
- **3 year Diploma in Electronics & Communication Engg.** from J.R. Govt. Polytechnic College, Hoshiarpur with first division in the year 1997.
- **Matric** from PSEB Mohali with first division in the year 1994.

### Professional Experience:

- Presently working as an Associate Professor & Head of ECE department with Lyallpur Khalsa College of Engg., Jalandhar, **since June 2015.**
- Worked as an Assistant Prof. & Head of ECE department with CT Institute of Engg. Mgmt. & Technology, Shahpur, Jalandhar, since **October 2012 to April 2015.**
- Worked as an Assistant prof. with Rayat Bahara College of Engg. & Nano Technology

for Women, Hoshiarpur since **January 2011 to July 2012.**

- Worked as Senior lecturer with SBBSIET, Khiala, Jalandhar from **Mar 2010 to Jan 2011.**
- Worked as a senior lecturer as well as Head of Electronics deptt. With GCET, Anandpur Sahib, from **sep 2009 to feb 2010.**
- **2 year** experience as a senior lecturer as well as Head of Electronics deptt. with KC Group of Institutions, Nawanshahr from **Aug. 2007 to Aug 2009.**
- **4 year** experience as a lecturer in Doaba Polytechnic College, Raipur, Nawanshahr from **Aug. 2003 to Jun. 2007.**
- **4 year** experience as a Service Engineer in Inverter manufacturing and sales unit from **Mar 1999 to April 2003.**

### **Projects Undertaken:**

#### **M.Tech. Project:**

Global Positioning System (GPS) receiver to display geographical parameters.

#### **A.M.I.E. Project:**

0.5 KVA online UPS with overload protection, automatic voltage regulator and low battery cut off facility.

#### **Diploma Projects:**

1. Intercom through AC Line upto range of 500 meters.
2. Water level controller.

### **Short Term Courses attended:**

S.N	Program	Duration	Organized by
1)	STC on application of MATLAB in Engineering	Two Day	IET, Bhaddal
2)	STC on microcontroller and its applications	One week	NITTTR, Chandigarh
3)	STC on VLSI System Design	One week	NITTTR, Chandigarh

4)	STC on MSP 430	Two Day	CTIEMT, Jalandhar
5)	Antenna Designing using HFSS	Two Day	DAVIET, Jalandhar
6)	FDP on Future of Communication Systems	One week	SLIET, Longowal, Sangrur
7)	Hands-on Multi Workshop on TI Embedded Processors	Two Day	NSIT, New Delhi
8)	TEQIP-II sponsored FDP on ICT for Computing and Signal Processing	Two Weeks	NIT, Jalandhar
9)	Prologue and Relevance of Mentor DSP	Two Day	Edgate Technologies, Bangalore
10)	Workshop on Analog System Design with ASLKv2010 Starter kit	Two Day	NIT, Jalandhar
11)	FDP on Future Trends of Broadband Wireless Communications and Networking	Two Weeks	SLIET, Longowal, Sangrur
12)	STC on Induction Training Program through ICT	One Week	NITTTR, Chandigarh
13)	STC on Antenna Simulation & Experimentation	One Week	NITTTR, Chandigarh
14)	ANN and Optimization Techniques and their applications using Sci - Lab	One Week	NITTTR, Chandigarh
15)	IAW – 2014, An effort initiated by NITTTR in Northern region of INDIA	One Week	NITTTR, Chandigarh

## **Publications:**

1. Amandeep Singh and Surinder Singh, "Design and Optimization of a Modified Sierpinski Fractal Antenna for Broadband Applications," *International Journal of Applied Soft Computing*, Vol. 38, pp. 843 – 850, 2016. (available online: [www.sciencedirect.com](http://www.sciencedirect.com)).
2. Amandeep Singh and Surinder Singh, "A Modified Coaxial Probe-Fed Sierpinski Fractal Wideband and High Gain Antenna," *International Journal of Electronics and Communications (AEÜ)*, Vol. 69, Issue 6, pp. 884-889, 2015. (available online: [www.sciencedirect.com](http://www.sciencedirect.com)).
3. Amandeep Singh and Surinder Singh, "A Trapezoidal Microstrip Patch Antenna on Photonic Crystal Substrate for High Speed THz Applications," *Photonics and Nanostructures - Fundamentals and Applications*, 14, pp. 52-62, 2015. *Elsevier Science* (Impact Factor- 1.474)
4. Gurpreet Singh and Amandeep Singh, "Design and Analysis of Wideband Microstrip Patch Antenna Employing EBG and Partial Ground Plane," *IOSR Journal of Electronics and Communication Engineering*, vol. 10, No. 1, pp. 55-59, 2015. (Impact Factor- 1.213)
5. Amandeep Singh and Surinder Singh, "A Novel CPW-Fed Wideband Printed Monopole Antenna with DGS," *International Journal of Electronics and Communications (AEÜ)*, 69, pp. 299 – 306, 2014. *Elsevier Science* (Impact Factor- 0.642)
6. Amandeep Singh and Surinder Singh, "Miniaturized Wideband Aperture Coupled Microstrip Patch Antenna by Using Inverted U-Slot," *International Journal of Antennas and Propagation*, Vol. 2014, Article ID 306942, pp. 1-7, 2014. *Hindawi Publishing* (Impact Factor- 0.890)
7. Jatinderpal Singh, Amandeep Singh and Nancy Gupta, "Design Analysis of a Hexaband Slot Loaded Microstrip Patch Antenna using ANN," *International Journal of Computer Applications*, vol. 101, No. 14, pp. 7-12, 2014. (Impact Factor- 0.715)
8. Jatinderpal Singh, Amandeep Singh and Nancy Gupta, "Design Analysis of a Circular Polarized Slot Loaded Microstrip Patch Antenna for Multiband Applications," *International Journal of Information & Communication Technology*, vol. 2, pp. 35-40, 2014. (Impact Factor- Indexed Journal but no impact factor)
9. Manjit Kaur, Amandeep Singh and Kuldeep Sharma, "Design and Development of A Novel Fractal Antenna for Wireless Applications," *International Journal of Research in Engineering & Technology*, vol. 3, No. 11, pp. 188-191, 2014. (Impact Factor- 1.926)

10. Bhupinder Singh, Amandeep Singh and Hardeep Singh, "Plasmonic Nano-Antennas for Infrared and Laser Communication," International Journal of Information & Communication Technology, vol. 1, pp. 27-31, 2013. (Impact Factor- Indexed Journal but no impact factor)
11. Bhupinder Singh, Amandeep Singh, "A Novel BiQuad Antenna for 2.4GHz Wireless Link Application: A Proposed Design," International Journal of Electronics & Communication Technology, vol. 3, no. 1, pp. 174-176, 2012. (Impact Factor- 0.413)
12. Silky Khurana, Amandeep Singh and Kuldeep Sharma, "Linear Polarized Slot Loaded Triple Band MSA with Defected Ground Structures for Wi-MAX and WLAN," International Journal of Electronics & Communication Technology, vol. 3, no. 2, pp. 166-170, 2012. (Impact Factor- 0.413)
13. Amandeep Singh, Neeru Malhotra and Gagandeep Sharma, " Simulative Analysis of Discone Antenna for 2.44 GHz Regime Using Antenna Magus," International Journal of Computing and Corporate Research, vol. 2, no. 2, pp. 1-20, 2012. (Impact Factor- 0.487)
14. Amandeep Singh, Yadwinder Kumar and Surinder Singh, "A CPW-fed Bowtie Microstrip Slot Antenna for Wireless Applications," International Conference on Electronics and Wireless Communication (World Academy of Science, Engineering and Technology) to be held in USA, March 2016.
15. Amandeep Singh and Gurpreet Kaur, "Comparative Study Of Watershed Algorithms For Morphological Image Segmentation," in Proceedings of National Conference on Recent Trends in Information & Communication Technologies (RTICT), pp. 195-198, 2013.
16. Amandeep Singh, Ravinder Kaur and Jasvir Singh, "Comparative Analysis Of Microcontroller 8051 and Msp430," in Proceedings of National Conference on Recent Trends in Information & Communication Technologies (RTICT), pp. 150-153, 2013.
17. Gurpreet Singh and Amandeep Singh, "Review of Various Bandwidth Enhancement Techniques of Microstrip Patch Antenna," in Proceedings of National Conference on Recent Trends in Information & Communication Technologies (RTICT), pp. 180-182, 2013.
18. Varun Nayyar, Dalveer Kaur, Amandeep Singh and Satinderjit Kaur, "Simulation of free space Propagation," in proceedings of national conference on Emerging Applications (NCEA-11), pp 23-25, 2011.
19. Satinderjit Kaur, Charanjit Singh, Varun Nayyar and Amandeep Singh, "Design and implementation of DMA Controller in VHDL," in proceedings of national conference on Emerging Applications (NCEA-11), pp19-22, 2011.
20. Amandeep Singh and Surinder Singh, "Application of Particle Swarm Optimization in Circuit Partitioning," in proceedings of NCCN-11, pp 272-275, 2011.

21. Amandeep Singh, Gurjit Singh and S.S. Gill, "Combinational CMOS Circuit Partitioning using Particle Swarm Optimization," in proceedings of Challenges in Emerging Computer Technologies , pp. 146-148, 2010.
22. Amandeep Singh, Aditi Kalsh and Rajwinder Kaur, "Particle Swarm Optimization: An Overview," in proceedings of Challenges in Emerging Computer Technologies, pp 149-152, 2010.
23. Gurjit Singh, Amandeep Singh and S.S. Gill, "CMOS Circuit Bi-partitioning Using Hybridization of PSO and ACO," in proceedings of Challenges in Emerging Computer Technologies (CECT'10), pp 153-155, 2010.
24. Aditi Kalsh, Rajwinder Kaur and Amandeep Singh, "Artificial Intelligence based Expert System for Diagnosis of HEPATITUS-B," in proceedings of Challenges in Emerging Computer Technologies (CECT'10), vol. 1, pp. 29-31, 2010
25. Santosh Kumar, Amandeep Singh and Narwant Singh Garewal, " Minimization of PMD in Cabled Fibers Using Manufacturing Techniques," in proceedings of RAECT-2006, pp. 365-367, 2006.

**List of courses taught:**

S. No.	List of courses taught with course titles, level (UG/PG)	Number of times taught
1.	Network Analysis and Synthesis	Once
2.	Basic Electrical & Electronics Engineering	Twice
3.	. Digital Electronics	Twice
4.	Analog Electronics	Twice
5.	Electronic Devices and Circuits	Thrice
6.	Electronic Measurements and Instrumentation	Twice
7.	Digital Circuit and Logic Design	Once
8.	Microprocessor	Once
9.	Linear Integrated Circuits	Once
10.	Signals and Systems	Once
11.	Electromagnetic Field Theory	Twice
12.	Data Communication	Once
13.	Principle of Communication Engineering	Twice
14.	Analog Communication Systems	Twice
15.	Digital Communication Systems	Once

## **Current Research Areas:**

- Broadband antenna designing
- Miniaturization of existing microstrip patch antennas
- Exploring the different DGSs for performance enhancement
- Development of novel PBGs for patch antennas
- Development of novel Fractal antennas
- High speed Tera-hertz microstrip patch antennas
- Applications of different optimization techniques
- Exploration of hybrid optimization techniques in the electromagnetic fields
- Development of patch antennas for high speed point – to – point wireless end user devices
- Effect of metamaterials in the designing of patch antennas

## **Exposure:**

- Antenna designing using Ansoft HFSS-13.0 electromagnetic field solver
- IE3D electromagnetic field solver
- CST Microwave Studio
- PWM based inverters
- Automatic Voltage stabilizers
- KTS EPABX
- Embedded system based projects and many other projects.

## **Extra Contributions:**

- Organized PTU sponsored 7 days NSS camp as Co-coordinator for spreading awareness about Cancer and Hepatitis in rural areas of district Jalandhar during February 26 to March 4, 2013.
- Organized National conference on Recent Trends in Information & Communication Technologies as a Co-Convener at CT Institute of Engineering Management & Technology in association with Punjab Technical University.



- I worked as admission co-ordinator at CTIEMT, RBCENTW and SBBSIET. I also worked as admission co-ordinator of Doaba Polytechnic College. I also worked as technical co-ordinator.
- I am fully Expert to run Industrial training courses at institute level as detailed under:
  - a) Antenna designing for wireless end user devices
  - b) Basic Electronics/ Advanced Electronics.
  - c) PCB Designing.
  - d) Embedded system.
  - e) Transformer designing.
  - f) Automatic Voltage Stabilizer manufacturing.
- I have conducted the JET Exam as a supdt. Exam at KC Polytechnic College Nawanshahr.
- As a Superintendent Examination, three times I have conducted final examination of diploma level colleges.
- As a Deputy Superintendent I have conducted three times final exam at the diploma level college and three times at the Engineering level college.
- I also performed the duties of officer in charge examination.
- I have also organized cultural function at the diploma and degree level institutions.

### **Personal Profile:**

<b>Father's Name:</b>	Sh. Chaman Lal
<b>Gender:</b>	Male
<b>Date of Birth:</b>	10 Apr. 1979
<b>Nationality:</b>	Indian
<b>Language Proficiency:</b>	English, Punjabi, Hindi.
<b>Marital Status:</b>	Married

### **References:**

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|---|---|---|
| 1. Dr. S.S. GILL,<br>Professor,<br>ECE deptt.,<br>Guru Nanak Dev Engg College,<br>Ludhiana<br>PH- 09814801718 | 2. Dr. Surinder Singh,<br>Associate Professor,<br>ECE deptt.,<br>SLIET, Sangrur.<br>PH- 09417589632 | 3. Dr Dalip Kumar,<br>Associate Professor,<br>ECE deptt.,<br>SLIET, Sangrur.<br>PH- 09417213652 |
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(Amandeep Singh)