



## Dr. DEEPAK CHATRABHUJ KARIA

Associate Professor and Head of Electronics Department,  
Sardar Patel Institute of Technology

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S.No	Degree	Institute	Year of passing	Class/CGPI/percentage
1.	PhD (Electronics)	V.J.T.I., Mumbai University	May 2012	---
2.	M.E.(Electronics)	Sardar Patel College of Engineering/ Mumbai University	2008	70.2 %
3.	B.E. (EXTC)	Mumbai University	2001	66.67%

- **Date of joining the present institute: 11<sup>th</sup> July 2006**
- **Date of joining the present department: 27-07-2013**
- **Teaching experience in totality : 18 years+**
- **Academic merit record and achievements: (only in graduation and post-graduation years)**

1. Topper in B.E. EXTC in 2001.
2. Topper in M.E. Electronics in 2008.

- **Awards:**

Able to secure a position amongst the 253 participants declared as top performers (SAP Award of excellence of Rs: 5000/-) of IITBombayX Use of ICT in Education for Online and Blended Learning course conducted by IITB from May-July 2016. A total of 2180 participants out of approximately 4051 participants were found to be eligible for certificate and 253 participants were found to be eligible for SAP Award of excellence.

- **Membership of professional bodies:**

1. Life Member of Institution of Electronics and Telecommunication Engineers (**IETE**).
2. Life Member of Indian Society of Technical Education (**ISTE**).

- **Domain expertise and areas of interest:**

- Communication

- Networking

▪ **Details of subjects taught:**

Sr.No.	Name of subject
1.	Principles of Communication Engineering
2.	Digital communication, Communication Networks, MITM, ANT

▪ **Workshops/Refresher courses/Training programs/Seminars attended:**

1. Two days Workshop on “**Wireless Networking**” organized by I.I.T, Mumbai, March 2004.
2. Two days seminar on “**Challenges Ahead in Telecommunication**”, organized by D.J.S.C.E, Mumbai, October 2005.
3. Two weeks S.T.T.P on “**Wireless Technologies and Networking**”, organized by D.J.S.C.E, Mumbai, October 2005.
4. One day Course on “**Matlab and its Applications**” Conducted by SPIT, Mumbai, 2006.
5. One week S.T.T.P on “**Electromagnetic Spectrum and its Applications**”, conducted by SPIT, Mumbai, 2009.
6. One week S.T.T.P on “**Emerging Areas of Signal Processing and Communication**”, conducted by Watumull, Mumbai, 2010.
7. Two week ISTE Workshop on “**Research Methodology**”, conducted by **I.I.T.B. and ICT (MHRD)**., Mumbai, July 2012.
8. One Week NBA workshop on “**Outcome Based Accreditation for Stakeholders**”, conducted NBA in association with NMIMS , Mumbai, Feb-2014.
9. Two week ISTE Workshop on “**Communication Networking**”, conducted by **I.I.T.B. and ICT (MHRD)**., Mumbai, July 2014.
10. One Week ISTE approved STTP on “ **Microwave Antennas for Wireless Communication**”, conducted by SPIT, Mumbai, Nov-2015.
11. Four weeks workshop on **Use of ICT in Education for Online and Blended Learning** course conducted by IITB from May-July 2016.
12. Four weeks CDEEP online graded course on **Financial Literacy** conducted by IITB, 2017- 18.

▪ **Workshops/Refresher courses/Training programs/Seminars conducted as a resource person:**

1. A two days seminar on “**LASERS AND ITS APPLICATIONS**” sponsored by B.A.R.C., for Shah and Anchor Kutchhi Engineering College, Mumbai, May 2006.
2. A five days training program on “**Cisco Certified Network Associate**” for students of Sardar Patel Institute of Technology, Mumbai, 2008.
3. A four days training program on “**Mobile Repairing**” for students of Sardar Patel Institute of Technology, Mumbai, Feb 2009 & Sept2010.
4. A four days training program on “**Mobile Repairing**” for students of Sardar Patel Institute of Technology, Mumbai, Sept2010.
5. One Day Training program on “**WLAN and its Security**” for students of PGDMIT, NITIE, Powai, 2013 and 2014.
6. Guest Lectures on “Communication Networks”, SPCE, Electrical Department, January- April 2016.
7. Resource Person for One week ISTE-S.T.T.P on “Networking and Cyber Security with hands-on labs”, SPIT, July 2015.
8. Invited expert for talk on Communication Networks at Sardar Patel College of Engg., Mumbai on 6<sup>th</sup> February 2017 for BE students.
9. Invited Speaker for Workshop on Wireless & Communication Networking at Atharva College of Engineering., Mumbai on 23<sup>rd</sup> August 2017 for TE and BE students.
10. Invited Speaker for Workshop on Wireless & Communication Networking at VIT., Mumbai on 18<sup>th</sup> January 2019 for TE and BE students.
11. Speaker for STTP on Recent Trends in Wireless Networks, organized by DJSCE, November 2018.

▪ **Patents:**

1. **Patent Name :SYSTEM AND METHOD FOR DETECTION AND DETERRENCE OF INTRUSION**, Inventor : Trivedi Jay, Vartak Mugdha, Tripathi Aditi, Karia Deepak, Application No. 4487/MUM/2015, Date of filing of Application : 30/11/2015, **Publication Date : 02/06/2017.**
2. **Patent Title : SYSTEMS AND METHODS FOR TRANSMITTING AND RECEIVING AUDIO DATA USING LIGHT** , Inventor : More Devashish, Khandkar Divya, Kumar Tushar, Bansode Manisha, Karia Deepak, Application No. 201921023087, Date of filing of Application : 11/06/2019, **Publication Date : 19/07/2019**

▪ **Publications:**

**International Conferences**

<b>S.No</b>	<b>Publisher</b>	<b>Title of International conference</b>	<b>Title of paper/article/poster presentation</b>	<b>Schedule and venue of conference</b>
1.	IEEE	Proceedings of the the 2nd IEEE International Conference on Intelligent Sustainable Systems [ICISS 2019]	Low Isolation Based Dual Band MIMO Antenna for WiMAX and X-band Applications	India, February 21-22, 2019
2.	IEEE	Proceedings of the 3rd International Conference on Communication and Electronics Systems, ICCES 2018	Prediction of Sudden Cardiac Death using Classification and Regression Tree Model with Coalesced based ECG and Clinical Data	India, DOI:10.1109/CESYS.2018.8723979
3.	IEEE	Proceedings of the 3rd International Conference on Communication and Electronics Systems, ICCES 2018	AI Use Cases in Operational Support System and Business Support System	India, DOI:10.1109/CESYS.2018.8724092
4.	IEEE	Proceedings of 2018 International Conference on Computing, Communication and Networking Technologies, ICCCNT 2018	Comparative Study of Roger and FR-4 Based Circularly Polarized Microstrip Patch Antenna with Injecting a Single Set of Shorting Pins ,	India, DOI:10.1109/ICC CNT.2018.8494116
5.	IEEE	Proceedings of the International Conference on Inventive Communication and Computational Technologies	Design of Circularly Polarized Microstrip Patch Antenna with Inserting of Shorting Pin	India, DOI:10.1109/ICICT.2018.8472983
6.	IEEE	Proceedings of the International Conference on Inventive Communication and Computational Technologies, ICICCT 2018	Cloud Based Smart Parking System	India, DOI: 10.1109/ICICCT.2018.8473084
7.	IEEE	International Conference on Energy, Communication, Data Analytics and Soft Computing	Design and development of farm automation system using NI myRIO	India, DOI:10.1109/ICE CDS.2017.8389537
8.	IEEE	International Conference	Agriculture monitoring	India,

		on Energy, Communication Data Analytics and Soft Computing, ICECDS 2017	system AMS	DOI:10.1109/ICE CDS.2017.8389535
9.	IEEE	International Conference on Intelligent Computing and Control	Network recovery using IP fast rerouting for multi-link failures	India, 2017
10.	IEEE	2nd International Conference for Convergence in Technology (I2CT)	High Gain Ultra Wide band MIMO Antenna	Mumbai, India, DOI: 10.1109/I2CT.2017.8226224
11.	IEEE	International Conference on Communication and Signal Processing	LabVIEW Based Real Time Bio-Telemetry System for Healthcare	April 6-8, 2017, India, DOI: 10.1109/ICC SP.2017.8286788
12.	IEEE	International Conference on Inventive Systems and Control (ICISC-Jan2017)	Certificate Pinning for Android Applications	Coimbatore, India, DOI: 10.1109/ICISC.2017.8068748
13.	IEEE	IEEE WiSPNET 2017 conference	Tunable Microstrip Antenna using Reactive Impedance Surface	Chennai, India, DOI: 10.1109/WiSPNET.2017.8299932
14.	IEEE	International Conference on Global Trends in Signal Processing, Information Computing and Communication	Design of Apollonian Gasket Bow Tie Antenna for Satellite Application	Jalgaon, India, DOI:10.1109/ICG TSPICC.2016.7955314
15.	IEEE	International Conference on Global Trends in Signal Processing, Information Computing and Communication	MMC: Multiple metric cost routing metric for wireless mesh networks	Jalgaon, India, DOI:10.1109/ICG TSPICC.2016.7955314
16.	IEEE	International Conference on Global Trends in Signal Processing, Information Computing and Communication	MMC: Multiple Metric Cost Routing Metric for Wireless Mesh Networks	Dec 2016, Jalgaon
17.	IEEE	International Conference on Global Trends in Signal Processing, Information Computing and Communication	Design of Apollonian Gasket Bow Tie Antenna for Satellite Application	Dec 206, Jalgaon
18.	IEEE	International Conference on Recent Trends in Electronics, Information & Communication	Multiband Circular Bow Tie Antenna Design using Apollonian Gasket of Fractals	September 2016

		Technology		
19.	IEEE	Computer and Communication Network (CoCoNet)	A 1*2 array circularly polarised Microstrip antenna with a high gain for RFID applications	Kerala, Dec 2015
20.	IEEE	Next Generation Computing Technologies (NGCT)	A compact wideband antenna for wireless applications using rectangular ring	Dehradun, Sept2015
21.	IEEE	Next Generation Computing Technologies (NGCT)	A mapping-based model for preventing Cross site scripting and sql injection attacks on web application and its impact analysis	Dehradun, Sept2015
22.	IEEE	IEEE Bombay Section Symposium (IBSS)	Impact Analysis of Preventing Cross Site Scripting and SQL Injection Attacks on Web Application	Mumbai, Sept2015
23.	IEEE	Advances in Computing, Communications and Informatics (ICACCI)	A high gain 2-element Microstrip array antenna with Circular Polarisation for RFID Applications	Kochi, August 2015
24.	IEEE	Nascent Technologies in the Engineering Field (ICNTE), 2015	Performance measurement of WEP and WPA2 on WLAN using OpenVPN Authors	Vashi, New-Mumbai, India, 2015.
25.	IEEE	Nascent Technologies in the Engineering Field (ICNTE), 2015	A 5.8 GHz ISM band microstrip antenna for RFID applications	Vashi, New-Mumbai, India, 2015.
26.	Springer	Recent cognizance in wireless communication & image processing	Multiband and Wideband Antenna for Wi-Fi, WLAN, X-Band and Space Research Applications	16-17 January 2015, Jaipur ,India
27.	IEEE	Advances in Computing, Communications and Informatics (ICACCI, 2014)	Wideband printed dipole antenna with embedded loops and coupling patches for digital TV signal reception	Noida, India, September 2014.

28.	IEEE	Advances in Communication and Computing Technologies (ICACACT)	Patch antenna for communication devices	Mumbai, Aug-2014
29.	IEEE	Advances in Communication and Computing Technologies (ICACACT)	Planar Dipole Antenna Design for DTV Broadcasting Application	Mumbai, August 2014
30.	IEEE	<i>Machine Intelligence Research and Advancement</i>	Review of Routing Metrics for Wireless Mesh Network	Jammu, India Dec 2013
31.	IEEE	<i>Energy Efficient Technologies for Sustainability</i>	Wireless Based Load Control and Power Monitoring System	Tamil Nadu, India April 2013
32.	IEEE	<i>Signal Processing, Communication, Computing and Networking Technologies</i>	Interference Mitigation In Multiuser OFDM Systems Using Network MIMO	Kanyakumari, India, July 2011
33.	IEEE	<i>Signal Processing, Communication, Computing and Networking Technologies</i>	Optimization of Power Control Algorithms for Mobile Cellular Networks	Kanyakumari, India, July 2011
34.	IEEE	<i>Signal Processing, Communication, Computing and Networking Technologies</i>	Game Theory Based Spectrum Load Balancing in Cognitive Radio	Kanyakumari, India, July 2011
35.	IEEE	<i>Signal Processing, Communication, Computing and Networking Technologies</i>	Embedded Web Server Application Based. Automation and Monitoring System	Kanyakumari, India, July 2011
36.	IEEE	<i>Electronics Computer Technology</i>	Cooperation based multihop relaying for IEEE 802.16	India, 2011
37.	IEEE	<i>Intelligent Systems, Modelling and Simulation</i>	Radio Channel Characterization for IEEE 802.11	Liverpool, United Kingdom, Jan 2010
38.	IET	<i>Next Generation Networks</i>	Modeling of Indoor Radio Propagation Channel for	India, 2010

			IEEE 802.11b/g	
39.	IEEE	<i>Mathematical/Analytical Modeling and Computer Simulation</i>	Statistical Tuning of Walfisch-Ikegami Model in Urban and Suburban Environments	Malaysia, May 2010
40.	IEEE	European Modeling symposium	A QoS Provisioning for Real and Non Real Traffic Over WLAN Using Connection Admission Policy	Liverpool, United Kingdom, Jan 2008
41.	IEEE	SPIT-IEEE Colloquium	Performance Analysis using Call Threshold CAC Scheme for MANET in Wireless MAN	India, 2008

- **Details of Chapters contributed to edited knowledge based volumes published by International Publishers:**

S.No	Publisher	Title of Book	Title of Book Chapter	Schedule and venue of conference
1.	Springer	Signal Processing and Intelligent Recognition Systems	Inbuilt Multiband Microstrip Antenna for Portable Devices	Trivandrum, India, 13-14 March 2014
2.	Springer	Security in Computer Networks and Distributed Systems	Clustering Based Routing Strategies for Energy Management in Ad-hoc Networks	Trivandrum, India, 13-14 March 2014
3.	Springer	Security in Computer Networks and Distributed Systems	MM-SOAR: Modified SOAR Protocol Using Multiple Metrics for Wireless Mesh Network	Trivandrum, India, 13-14 March 2014
4.	Springer	Security in Computing and Communications	Privacy Issues in Single and Multi-hop Wireless Mesh Network	Mysore, India, August 2013
5.	Springer	Energy efficient wireless communications and networking	Performance Analysis of ZigBee based on Load Control and Power Monitoring System	Mysore, India, August 2013

- **Details of National and International Journal publications:**

S.No	Title of Journal	Title of paper	Co-authors
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1.	International Journal of Electronics and Communications, Elsevier journal of Electronics and communication, <a href="#"><u>2017 - Vol. 72, pp.33-39</u></a>	A compact monopole antenna for wireless applications with enhanced bandwidth	S.Goswami
2.	<i>International Journal of Wireless Mobile Computing</i> , Inderscience Publishing House, England, <a href="#"><u>2012 - Vol. 5, No.2 pp. 161 - 167</u></a>	QoS Provisioning in Cellular Networks Using Environment Based Interference Alleviation Model	B.K.Lande and R.D.Daruwala
3.	<i>International Journal of Intelligent Engineering Informatics</i> , Inderscience Publishing House, England, <a href="#"><u>2011 - Vol. 1, No.3/4 pp. 246 - 260</u></a>	Back Propagation Neural Network Based Energy Efficient Routing Protocols for Mobile Ad-hoc Networks	B.K.Lande and R.D.Daruwala
4.	<i>International Journal of Intelligent Engineering Informatics</i> , Inderscience Publishing House, England, <a href="#"><u>2013 - Vol. 2, No.1 pp. 21 - 29</u></a>	Improving Spectral Efficiency in Cooperative Cellular Networks Via Convex Optimization	B.K.Lande and R.D.Daruwala
5.	<i>International Journal of Ad-hoc Ubiquitous Computing</i> , Inderscience Publishing House, England, <a href="#"><u>2012 - Vol. 11, No.4 pp. 206 - 213</u></a>	Performance Analysis of HMM and ANN based Spectrum Vacancy Predictor Behaviour for Cognitive Radios	B.K.Lande and R.D.Daruwala
6.	<i>International Journal of Intelligent Engineering Informatics</i> , Inderscience Publishing House, England, <a href="#"><u>2013 - Vol. 2, No.1 pp. 30 - 46</u></a>	Mobility Models and Traffic Pattern Generation Based Optimization of Reactive Protocols (In Press)	V. Godbole
7.	<i>International Journal of Ultra Wideband Communications and Systems</i> , Inderscience Publishing House, England, <a href="#"><u>2012 - Vol. 2, No.3 pp. 133 - 140</u></a>	Genetic Algorithm-Based Energy-Efficient Protocol For Wireless Sensor Networks (In Press)	V. Godbole
8.	<i>IET journal of Networks</i> , England, 2013, Volume:2, Issue 3, <a href="#"><u>pp.171-180</u></a>	A New Approach For Routing In Mobile Ad-Hoc Networks Based On Ant Colony Optimization With GPS	V. Godbole
9.	<i>International Journal of Communication Networks and Distributed Systems</i> , Inderscience Publishing House, England, <a href="#"><u>2014 - Vol. 12, No.3 2, pp. 169-182</u></a>	Dynamic Clustering Scheme for Distributed Spectrum Sensing in Cognitive Radio Networks	P. Joshi, P. Rawat and M.Thakur
10.	<i>International Journal on Advanced Computer Theory and Engineering</i>	Wireless Electronic Notice Board	A. Gaikwad, T. Kapadia, M. Lakhani
11.	<i>International Journal of Swarm Intelligence</i> , Inderscience Publishing House, England, <a href="#"><u>2015 – Vol.1, Issue 4, pp. 299-320.</u></a>	ACO based Biology Inspired Routing Protocol for Ad-hoc Networks	V. Godbole

▪ **Funded Major/Minor Projects:**

1. Dr. Rahul D., Dr. Deepak C.Karia and Mr. Rahul Khandare, “ Metamaterial based Dual band MIMO antenna with high isolation”, Minor Research Proposal Grant of Rs: 50,000/- under TEQIP-III, November 2019 SPCE, Mumbai-58.
2. Dr.Deepak C.Karia, “Internal UWB Planar Microstrip Patch Antenna for portable devices ”, Minor Research Proposal Grant of Rs: 25,000/- , UoM, AY 2013-14 Mumbai.

▪ **Contribution to and role played in the administrative affairs of the institute:**

1. Head of Electronics Engineering Department, SPIT, Since September 2019.
2. IQAC Member and NAAC Criteria 2 Institute level coordinator 2017-August 2019
3. Controller of examination section, SPIT, from May 2014-May 2016.
4. Program Coordinator, ETRX Department, SPIT, since Feb-2014.
5. Chief Coordinator of MH-DTE-MCA Counseling Round-III for the academic years 2010-11, 2011-12, 2012-13 and 2013-14.
6. In-Charge of Institute Level F.E. Admission Rounds for the academic years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14.
7. Faculty In-Charge SPIT, IETE and ISF Students' forum from 2008-2013.
8. Member of college level Student Welfare committee since January 2012.

• **Other Contributions:**

Invited Reviewer for IEEE Transactions on Wireless Communications, IEEE Journal on Vehicular Technology, IET Journals of Sensor Systems, Networks, IEEE CommunicationMagazine, IEEE Symposiums and Conferences.