

### Dr Mrs Upena Devang Dalal

Professor and Ex-Head,
Electronics Engineering Department,
Sardar Vallabhbhai National Institute of Technology,
Surat

Date of Birth: 28th October, 1969

# Professional Details from present to former (Details of positions held and organizations served): Professor (presently)

Organization	Р	eriod	Designation
	From	То	
SVNIT, Surat	1/1/2007	26/1/2019	Associate Professor
*Government Engineering College, Surat	Dec. 2010	May 2011	Visiting Faculty for PG classes only on hourly basis on Saturdays
SVNIT, Surat	27/10/2005	31/12/2006	Lecturer(Selection Grade)
SVRCET to SVNIT conversion in 2002	26/5/1999	26/10/2005	Lecturer (Senior Scale)
*APTECH computers, Surat	1998	1999	1 year as visiting teacher in special course on Communication Engineering (with hourly basis honorarium)
SVRCET, Surat	23/2/1993 (Permanent Position)	25/5/1999	Lecturer
SVRCET, Surat	16/9/1991	22/2/1993	Lecturer (Adhoc)

<sup>\*</sup>Along with job in SVRCET/SVNIT

Teaching experience in higher education of 30 years and research experience of 15 years

#### **Educational Details**

Sr No.	Examination Passed	Name of the Board/University	Year of Passing	Class/Percentage/CGPA
1.	S.S.C.	Gujarat Board	1985	89.5% (Dist) 7 <sup>th</sup> rank in Gujarat board, 3 <sup>rd</sup> rank in Surat center
2.	H.S.C.	Gujarat Board	1987	76.25% (overall) (Dist) 86% (PCM subjects-merit)
3.	B.E.(Electronics)	SVREC affiliated to S G University (Now VNSGU)/	1991	Sem 1,2 68.5% (Dist) Sem 3,4 –63.25% (First Class) Sem 5,667.03% (Dist) Sem 7,8—74.44%(Dist)
4.	M.E.(Electronics and Comm. Systems)	DD (Deemed) University, Nadiad	2005	76.48% (Dist) with Laxminarayan Kalla Gold Medal being the topper
5.	Ph.D. (Domain : Wireless Communication)	SVNIT, Surat	Nov. 2009	CGPA 9.0 in the course work with 12 credits
6.	Upantya Visharad in vocal music (Diploma equivalent)	Brihad Gujarat Sangeet Samiti, Ahmedabad	1990	First class

- B.E. Project: IC Based Color Television Receiver Sections for Laboratory Purpose... (Guide: Prof A H Lalluwadia, Associate Professor, EC Deptt, SVNIT)
- B.E. Seminar: Electronic Tracking Systems for Space Communications...(Guide: Dr P H Tandel, the then Assistant Professor, EC Deptt, SVRCET, Surat)
- M. E. Dissertation: Study and Simulation of OFDM Multicarrier Modulator-Demodulator with BER Performance (A Comparative Approach with Conventional Systems and CDMA) (Supervisor-Dr A S Ranade (The then Professor and Head of Electronics Department, DDIT, Nadiad).....
- Ph. D. done under the guidance of 1. Dr Y P Kosta (Professor, EC Deptt, Director, Marwadi Education Foundation, Rajkot, Formerly Principal, CHARUSAT), 2. Dr K. S. Dasgupta (the then Director, ISRO, Ahmedabad) and 3. Late Dr H K Patel (the then Professor, Electrical Engineering Department, SVNIT, Surat)

Title of the Ph. D. thesis: Design and Analysis of New Selectively Imposed Pilot and Doppler Channel Estimation Technique with Outage Analysis for OFDM System over Time Varying Channel for Frame based Access in Mobility

Proud of being the first lady in Gujarat state to obtain Ph. D. in the field of EC and Wireless Communication

Special achievements during schooling education phases:

- In S.S.C. examination of Gujarat board, 7<sup>th</sup> rank in Gujarat Board, out of approx. 2 lac students and 3<sup>rd</sup> in Surat Center. Second topper in Gujarat board in Gujarati subject
- In H.S.C. examination of Gujarat board, merit rank within first 100 students of the board, 5<sup>th</sup> rank in Surat Center.
- Qualified Elementary and Intermediate examinations of Drawing, Examinations for Hindi (Vardha) upto Third level, Examinations for English language-Three levels (By Bhartiya Vidya Mandal), and all of them are passed with first class or distinction.
- President in the student council during standard 9, Lady Representative and additional cultural secretary during B. E. III year.

#### Nature of activities now (Details are appended)

Professional activities—

Teaching in higher Education
Professional Networking
Research and publications
Institutional and Departmental academic work

Nonprofessional activities--

Social and cultural activities in association with different organization

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#### **Contact Details**

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upena.dalal@gmail.com

Important web links to meet me: <a href="https://www.svnit.ac.in">www.svnit.ac.in</a>, <a href="https://www.oup.co.in">www.oup.co.in</a>

www.linkedin.com

#### Information about the Professional activities over the years

#### The subjects taught till now:

Basic Electronics (UG)

Solid state Devices (UG)

Digital Circuits (UG)

Pulse and Switching Circuits (UG)

Pulse and Waveforms (UG)

Electronic Instrumentation and Control (UG)

Electronic System Design (UG)

Communication Engineering (UG)

Communication Systems (UG)

Microprocessors (UG)

Analog and Digital Communication (UG)

Principles of Communication (UG)

Computer Communication and Networking (UG)

Telematics/ Digital Switching Circuits (UG-Elective)

ISDN and ATM (UG-Elective)

Modern Communication Systems-Fiber Optic Communication and Satellite Communication (UG)

Digital Communication (UG)

Mobile Communication/ Cellular Technology (UG)

Wireless Communication (UG-Elective)

Mobile Networks (PG)

Fiber Optic Networks (PG)

Digital Image Processing (PG)

Adhoc Networks (PG)

MIMO technology (PG)

Mobile Computing (UG-Elective)

#### Few Industrial Visits and Collaborations with

1. ISRO, Ahmedabad



ISRO visit on 29<sup>th</sup> September 2014-meeting with Dr Kirankumar, Director, SAC and felicitated him with Buquet for Mars mission success.

MoU with ISRO for IRNSS Navigation Receiver Field Trial and Data Collection-- project of ISRO on IRNSS Navigation system development and testing.

Department received two IRNSS receivers under this MOU and sends the received data to ISRO on weekly basis. Attended User meets at Ahmedabad and Banglore.

SIRMI project successfully completed with ISRO

#### 2. INS Valsura, Jamnagar



MoU with Indian Navy in 2015 for five years in terms of Projects and PG/Ph D programs.

Guided dissertation to a sponsored naval Leftt. Commanding officer who is pursuing M. Tech from SVNIT(2017).

Visit of Commanding Officers, Indian Navy from INS Valsura 17<sup>th</sup> October, 2014, to discuss the various issues to be taken up.

A photo with Naval Officers whom I trained by delivering lectures on Applications of Digital Signal Processing





3. Automation Systems, Ahmedabad—trainings, lab development and funding support I received for various events. Working on MOU for ASEPL supported Advance research Lab.

4. Lexus Soft Mac (Diamond Industry), Surat



5. Scientech, Indore and Royal Electronics, Vadodara



Visit to Scientech Indore by me during 24-25 September, 2014.

Scientech Indore supported visit for third year B.Tech. students during my tenure as Head, ECED Lab development and funding support for various events.

6. HAL and Indian Airforce, Nashik



Visit with the student of B. Tech IV in 2017

- 7. Keysight Technologies (Formerly Agilent Technologies)—Donated Systemview and VSA Software (perpetual license) through me for the Advance Communication/research lab, ECED. Working on MOU for Keysight supported Advance research Lab. Earlier Joint proposal sent to DEITY for CoE for 5G technologies.
- 8. E-infochip, Ahmedabad---Guided two M.Tech(R) of their two employees
- 9. Innovians Technologies





Workshop on IOT by Innovians Technologies(TEQIP sponsored)-31<sup>st</sup> March-1<sup>st</sup> April 2016. Another workshop (Sponsored by Swapn-Preeti-Bhadresh Foundation and SVNIT Alumni Association-Surat Chapter) is organized on 31<sup>st</sup> august, 2017 as a part of conference ICFITT 2017. Conducted by Mr Prateek Gupta, Director, Innovians Technologies.

10. Indian Railways-As a consultancy work training program cum workshop organized for the Railway supervisors and Technicians funded by Indian railways-corresponding with Mr Pradeep Gupta, Principal, Zonal Electric Training Center, Western Railways, Nava yard, vadodara



#### Foreign collaborations with

- 1. Dr Sajal Das, Daniel St. Clair Endowed Chair Professor at the Computer Science department at Missouri University of Science and Technology (S&T), visited ECED to deliver a lecture during ET2ECN2012, and later Technical collaborations
- 2. Dr Silvia Giordano Head of Networking Lab, Member of ISIN Direction, University of Applied Science SUPSI, Galleria 2 via Cantonale, 6928 Manno, Switzerland, visited ECED to deliver a lecture during ET2ECN2012 also, technical correspondence
- 3. Dr Imrich Clamtac, Full Professor of Telecommunications at the University of Trento and President EAI, organized EAI conference jointly
- Dr Ahcene Bouncear, Associate Professor, University of Brest, visited ECED as keynote speaker during ICFITT 2017, further technical correspondence and one project support for CupCarbon simulator for smart city IOT
- 5. Mr Miroslav Skoric, Expert in Amateur radio, University of Novi Sad, Novi Sad, Serbia & Montenegro, He donated many IEEE journals for department library. He visited ECED for a two days workshop on amateur radio on my request.



Presently coordinating the lecture series from foreign experts from 1<sup>st</sup> Feb 2021 to April 2021 On online mode for students and faculty on advanced topics

Lecture 1 by Dr Akshay Jain, Europe

Lecture 2 by Dr Marcin Peprizky, from Poland

Lecture 3 by Dr Sergi Abadal, from Europe

Lecture 4 by Luciano Agostini, from Brazil

#### **Various Portfolios**

- 1. Institute purchase Committee member (2011 onwards)
- 2. Head of EC Department (June 2014 to June 2016)
- 3. Associate Dean FW (June 2016 to June 2018)
- 4. Chairperson ICC (June 2014 to June 2016)
- 5. Hon secretary IETE Surat Subcenter (2011 to 2013)
- 6. Chairperson IETE Surat Subcenter (August 2013 to July 2016)
- 7. Chairperson Women cell, SVNIT (Feb 2017 onwards)
- 8. Member of DAAC (till date)
- 9. Member of IAAC (June 2014 to June 2018)
- 10. Member of Senate (June 2014 to till date)



Inauguration of New Building during my tenure of Headship



Curriculum development workshop, 9-10 January 2015 during the tenure of my headship in ECED

Nodal officer Ek Bharat Shrestha Bharat (EBSB) program of MHRD from 15<sup>th</sup> October 2017 onwards



1<sup>st</sup> November, 2017 Chhattisgarh day celebrations

#### IETE activities being Hon Secretary and then Chair-Person of IETE Surat subcenter Jan 2011-June 2016





Blood donation camp in IETE, Seminar on fundamentals of Maxwell's equation, By Dr Y P Kosta



E- Governance by SMC, Seminar



Expert Talk on Holistic Health for youth by Dr Raj Shetty



As a Chair Person of Women Cell from 2016 onwards, Women's Day Celebration (8th March 2017) Poster Design, Memento design, Banner design done.

#### **Membership of Technical Societies/Professional Bodies**

Sr.	Name of	Category	Membership No.
No.	Association/Society/professional		
	bodies		
1	ISTE	Life Member	LM 27426
2	IETE	Life Member	M 176031
3	IE	Life Member	IE133419-5
4	IEEE	Senior Member	80738204
5	Society of Women in Engineering, WIE of IEEE	Member	80738204
6	IJERIA	Life member	LM2114

#### Awards and Honors

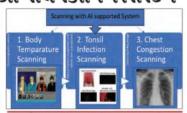
Name of awards / prizes	Year	Awards / prizes received from
Laxminarayan Kalla Award	May 2005	DD University, Nadiad for standing first in M.E. (gold-medal)
5 <sup>th</sup> IETE N V Gadadhar Award	Sept 2006	IETE-for outstanding contribution in Radio and mobile comm. (gold-medal, citation and cash)
Rashtriya Gaurav Award	April 2010	India International Friendship Society
International Gold Star Award	May 2010	India International Friendship Society
Bhaskar Woman of the year 2010	July 2010	Divya Bhaskar News paper Group
Distinguished Women in Engineering award	March 2020	Venus International Foundation—during VIWA 2020

#### **Special Work During COVID 19 Pandemic**

સોક્ટવેરની મદદથી શરીરના તાપમાન અને ઇન્ફ્રેક્શનનું નિરીક્ષણ થશે વાયરલ ચેપને શોધી કાઢવા તજજ્ઞોએ તૈયાર કરી 'ટોન્સિલ સ્ક્રીનિંગ સિસ્ટમ'

દેશભરમાં કો <sub>પ</sub>િ દેશભરમાં કોરોનાનો હાઉ દિનપ્રતિદિન વધી રહ્યો છે ત્યારે વિવિધ ક્ષેત્ર સાથે સંકળાયેલા તજુશો કોરોનાને કોરોનાનો કાબમાં લેવા અથવા સંક્રમિતોની ઝડપી ત્રભૂતા વર્ષા અપના સત્રાતા 1334 જાણકારી મેળવવા માટે સંશોધન, અભ્યાસ કરી રહ્યા છે. જે અંતર્ગત સુરતની ટોચની ટેક્નિકલ સંસ્થા પૈકીની એક એવી એસવીએનઆઇટીના ડો. બંધેના દલાલ અને ભુજની કોલેજના ડો. પરિમાશાલીન પરીખ સહિતના તજક્ષોએ વાયરલ ચેપને શોધી કાઢવા તજાના વાપરત વપન તાપા કાઠવા માટે ટોન્સિલ સ્ક્રીનિંગ સિસ્ટમ તૈયાર કરી છે. ૧ હજારથી વધુ છબીનું પૃથક્કરણ કરી ગળાના ભાગે થયેલો ચેપ શોધી કાઠવા માટે આ નવતર

પ્રયોગ કરાયો છે. ડો. ઉપેના દલાલ, ડો. પરિમાશાલીન પરીખે થર્મો ચારિક કેમેરા અને ઓપ્ટિકલ કેમેરાના સહયોગથી કોવિડ-૧૯ના શંકાસ્પદ કેસ ઓળખવાનો પ્રયાસ કર્યો હતો. તે માટે આર્ટિફિશિયલ ઇન્ટેલિજન્ટની મદદથી ટોન્સિલ એટલે કે ગળામાં કાકડાનો સોજો શોધવાનો પ્રયાસ કરાવો હતો. વળી, આઇઆઇ આઇટીના બે વિદ્યાર્થીઓ કૃષ્ણા ઓઝા, એકતા અરોરાએ દર્દીના હાવભાવની ઓળખ સાથે આર્ટિફિશિયલ ઇન્ટેલિજન્ટ આપારિત ચેસ્ટ એક્સ રે સ્ક્રેનિંગ સિસ્ટમ વિકસાવી હતી. હવે રકાળ ન સરદમ (વક્સાવા હતા. હવ ગળાના ચેપના નિરીક્ષણની દિશામાં આગળ વધતા સ્કેટ કોલેજના બે વિદ્યાર્થીઓ હિમાંશુ મુકર્ચદાની અને પૂજા દલાલ જોડાયા છે. આ વિદ્યાર્થીઓએ ટોન્સિલની છબી કારા વાયરલ ઇન્કેક્શનને પકડી પાડવા માટે



એક હજારથી વધુ છબીનું પૃથક્કરણ કરી ગળાના ભાગે થયેલો ચેપ શોધી કાઢવા પ્રયાસ

અલ્ગોરીધમ આધારિત છબી પશ્ચિાનો સહારો લીધો છે. વાયરલ અલ્ગોરીધમ ઈન્ફેક્શન કયા પ્રકારનું છે એ જાણવા માટે ૧ હજારથી વધુ છબીનું પૃથક્કરણ

ગુ છે. આમ, એસવીએનઆઇટી સહિતની સાંસ્થાઓના તજજ્ઞોએ એકત્ર થઇ ગળાના ભાગે થયેલો ચેપ કોરોના વાઇરસને લીધે થયો છે કેમ એ જાણવા માટે સોક્ટવેર પર આધારિત પશ્ચિમ શોધી કાઢી છે. તેને કારણે કિટ દ્વારા કરવામાં આવતી ચકાસણીનો ખર્ચ બચી શકે છે. જ્યારે હવે ટોન્સિલની ચકાસણી, વિવિધ ભાગના સ્પર્શ માટે રોબોર્ટિંગ સાધનનો ઉપયોગ કરવાની દિશામાં

કમ્પ્યૂટરના અલ્ગોરીધમ અને ઈમેજ સેગમેન્ટના નિરીક્ષણ પર આધારિત છે. તેમાં છબીનું પૃથક્કરણ, પૂર્વ તૈયારી અને ચેપ લાગ્યો હોય એ ભાગનું નિરીક્ષણ કરવામાં આવે છે સકાસણી નિરીક્ષણ કરવામાં આવે છે. ચકાસણી દરમિયાન આખી પ્રક્રિયામાં ચેપ કેટલો છે એની જાણકારી પણ અપાશે.



Publications based on the mass scanning system development work

Authors: Poojan Dalal, Ojas Ramwala, Himansh Mulchandani, Parima Dalal, Upena Dalal, Mita Paunwala, Chirag Paunwala

- Throat Inflammation based mass screening of a. Covid-19 on Embedded Platform (Springer Icsoftcomp 2020 on 12/12/2020 (with only 14% acceptance rate of papers out of total papers received )Best paper award and selected for Springer Nature journal-SN Computer Science,
- Tonsillitis based early diagnosis of Covid-19 for Mass screening using One-shot Learning framework (IEEE Indicon 2020--11 to 13/12/2020--Won the student paper contest of best paper by Ojas Ramwala-presenter-19/12/2020)
- One Book chapter submitted in Springer titled 'Design of LinkIt ONE based IoT System with Middleware **Architecture for Healthcare Monitoring**
- Design and developed the wrist band prototype and linked with quarantine people scanning system based on IoT

### Experts study advanced AI Covid-19 scanning

Mother Is An Engineer, Daughter A Paediatrician

Yagnesh.Mehta @timesgroup.com

turat: With an aim to pre-ent doctors from getting infected with coronavirus, mother-daughter medico-echnical team studied the echnical team studied the N-based Covid scanning to dentify infection in a pati-ent at the preliminary stage without any physical inter-rention of a doctor. In their study, the duo de-reloped a concept that it can be verified at initial level if a person has infection thro-



Mother-daughter team of Dr Upena Dalal and Dr Parima Dalal Parikh ugh visual examination of throat by an automated AI scanner. The Study aims at prevent doctors who are al

ready limited in numbers from getting infected from exposure to coronavirus du-ring treatment of Covid poring treatment of Covid po-sitive patients.

Dr Upena Dalal, profes-sor in electronics depart-ment at Sardar Vallabhab-hai National Institute of



Technology (SVNIT) and lal Parikh, a paediatrician, undertook a study of throat

undertook a study of throat infections in Covid-19 patients and developed a method to examine it electronically by a Al-based scanner. The duo took a lead from Krishna Ojha and Ekta Arora, two BTech students of Indian Institute of Information Technology (IIIT),

Surat, who developed an initial model of AI based Covidi9 scanner.
"The students' AI-based Covid-19 scanner notices basic symptoms of snee-zing coughing runny nose zing, coughing, runny nose and chest X-ray. But chest infection is developed at a later stage and in that con-dition a patient cannot even

later stage and in that con-dition a patient cannot even stand properly," explained Dr Parikh. But during their study, the duo found that tonsilli-tis with some specific cha-racteristics can suggest if it is due to coronavirus.

"After studying the findings of doctors and examination details of coronavirus at the initial infection stage, we arrived at a con-clusion that if the AI-based scanner can notice and identify the infected throat,

it will be more effective for treating it at once," said Dr Dalal.

The mother-daughter team has also shared their findings with the two IIIT students. "Now we are working on use of infra-red thermal and optical camera to examine throat infections. With this, a patient can be examined by the scanner without any doctor coming in direct contact with the infected person," Dr Dalal added.

ded.

However, the study is still on the theory table without having conducted any clinical validation as yet.

The team is now working

on to get support from the MHRD to develop the project at an advance level which can be used in hospitals and health centres.

### **Short Term Technical Training Programs/SDP/Conferences Organized**

Sr. No.	Institute/ Organization	Title	Duration
1	ECED-SVRCET AICTE sponsored	National level short term course on "Advance Communication Systems" (co-coordinator)	25 <sup>th</sup> Dec to 29 <sup>th</sup> Dec.2001 (1 week)
2	ECED-SVNIT AICTE sponsored	National level short term training program on "Wideband Wireless digital communication" (co-coordinator)	13 <sup>th</sup> to 18 <sup>th</sup> December- 2004 (1 week)
3	ECED-SVNIT Under TEQIP	Two days Training /Workshop on "Code composer studio"  Coordinator Institutional Networking Activity	21-22 May- 2005 (2 days)
4	ECED-SVNIT Under TEQIP	National level 3 days training program on "Simulation of Communication Systems' Coordinator Institutional Networking Activity	20-22 Jan. 2006 (3 days)
5	ECED-SVNIT Under TEQIP	2 days training program on "Mobile Repairing" service to community under TEQIP- <b>Coordinator</b>	24-25 March 2007 2 days
6	SVNIT, EQUATE Under TEQIP	Management Capacity Development program for middle level faculty  Co-coordinator	4-8 Feb. 2008 (1 week)
7	ECED-SVNIT, AICTE sponsored	Short Term Training Programme on Microwave Integrated Circuits  Organizing Committee member	16-20 June, 2008 (1 Week)
8	ECED-SVNIT, AICTE, DST, CSIR, SVNIT	National Conference on Advancements in Wireless Technologies and Applications-AWTA08  Co-convener	18-19 Dec 2008 (2 days)
9	ECED-SVNIT, AICTE sponsored	STTP on Nanotechnology Organizing Committee member	13-17 July, 2009 ( 1 week)
10	ECED-SVNIT AICTE sponsored	STTP on Teaching with MATLAB and SIMULINK Coordinator	21-25 Dec. 2009 (1 week)
11	ECED-SVNIT, Agilent/ASEPL	One day Training/workshop on Wireless Communication and FPGA Debugging Coordinator	16 <sup>th</sup> April 2011
12	ECED-SVNIT, Agilent/ASEPL	One Day Training/workshop on RF- Microwave/ Wireless communication & low level DC measurement Solution Coordinator	18 <sup>th</sup> April 2012
13	ECED-SVNIT, IEEE, IETE, IE, SVNIT, TEQIP, GUJCOST, CSIR, DRDO, Agilent, NI, sponsored	1 <sup>st</sup> IEEE International Conference on Emerging Technology Trends in Electronics, Communication and Networking—Et2ECN2012 Conference Chair	19-21 Dec. 2012 (3 days)
14	ECED-SVNIT Under TEQIP	STTP on 3G and 4G Technologies  Coordinator	30 <sup>th</sup> Sept-4 <sup>th</sup> Oct. 2013

			(1 week)
15	ECED-SVNIT, IETE supported under TEQIP	Two days Finishing School Program on Mathematical and Statistical applications in Electro-Communication Systems  Coordinator	27-28 Feb 2014 (2 Days)
16	ECED-SVNIT, TEQIP	2-days Workshop on Amateur Radio Digital Information and Communication Technologies Speaker—Mr Miroslav Skoric from UK Co-ordinator	8-9 September 2014 (2 Days)
17	ECED-SVNIT, IEEE, SVNIT, TEQIP, NewAge, Royal Electronics	2 <sup>nd</sup> IEEE International Conference on Emerging Technology Trends in Electronics, Communication and Networking—Et2ECN2014 Conference Co-ordinator	26-27 Dec. 2014 (2 days)
18	ECED-SVNIT, IETE supported TEQIP sponsored	2-days Workshop on Wireless Sensor Network <b>Co-ordinator</b>	3-4 September, 2015 (2 Days)
19	At Vadodara, IETE Vadodara and IETE Surat Sub-center joint event	1 day seminar on World telecom and Information Society day-2015  Chair-IETE Surat Subcenter	17 <sup>th</sup> May, 2015 (1 Day)
20	ECED-SVNIT,TEQIP	Two days Workshop on IoT-Internet of Things—for students of the Department Co-ordinator and HOD	31 March-1 <sup>st</sup> April, 2016 (2 days)
21	ECED-SVNIT with EED SVNIT, Indian Railways funded	1 week (48 Hours) Training cum Workshop for Supervisors and Technicians of Indian Railways for Upgrading their Skills (Batch 1) Main Co-ordinator and correspondent	6-11 February, 2017
22	ECED-SVNIT with EED SVNIT, Indian Railways funded	1 week (48 Hours) Training cum Workshop for Supervisors and Technicians of Indian Railways for Upgrading their Skills (Batch 2) Main Co-ordinator and correspondent	13-18 February, 2017
23	ECED-SVNIT, EAI, GUJCOST-DST, DRDO, Keysight Technologies, SVNIT AA Surat Chapter and Swapn-Preeti- Bhadresh Foundations, Scientech	1st EAI International Conference on Future Internet Technologies and Trends General Chair and Member of Steering Committee along with Dr Imrich Chlamtac, Professor, Trento Uni and President EAI, Italy	31 <sup>st</sup> August-2 <sup>nd</sup> September, 2017 (3 Days)
24	Keysight and ECED, SVNIT	1 day seminar –Keysight Education symposium 2018—RF solutions, EMC EMI testing etc. towards 5G solutions	18 <sup>th</sup> September 2018 (1 day)
25	ECED SVNIT TEQIP III	SVNIT-MMMUT jointly organized one week STTP on Global navigation satellite Systems	24-28 <sup>th</sup> June 2019

### **Expert Lectures Delivered**

Sr.	Title of the Lecture	Place of	Date	Event
No.	Title of the Lecture	Delivering	Date	Lvent
1	Bluetooth Technology for	SVRCET,	25	STTP on "Advance
	wireless communication	Surat	Dec,2001	Communication Systems"
2	Wireless Access Protocol-WAP"	SVRCET,	26 Dec.	STTP on "Advance
_	Trincioso / todoso i Totoso i Tri	Surat	2001	Communication
				Systems"
3	Network Security	SCET,Surat	2 Nov 2004	STTP on "Information Security"
4	Digital modulation Schemes (3	SVNIT,Surat	13	STTP on "Wideband
	Hrs.)	,	Dec,2004	Wireless Digital
	- ,		, , , , ,	Communication"
5	Orthogonal Frequency Division	SVNIT,Surat	15	STTP on "Wideband
	Multiplexing		Dec.2004	Wireless Digital
	manuplesting		200.200	Communication",
6	Code composer studio (whole	SVNIT,Surat	21 May	Two days training Prog.
0	day)	Ovivir, Garat	2005	On "Code Composer
	uay)		2003	Studio
7	Code composer studio (whole	SVNIT,Surat	22 May	Two days training prog.
,	day LAB session)	Oviviii, Odiat	2005	On "Code Composer
	day LAD session)		2003	Studio
8	MATLAB- Communication	CKPCET,	16 July,	Three days workshop
O	toolbox	Surat	2005	on MATLAB
9	MATLAB- Communication	SVNIT,Surat	23 Oct.	Three days workshop
3	toolbox	Oviviii, Odiat	2005	on MATLAB for
	toolbox		2000	students
10	Simulation of communication	SVNIT,Surat	20 Jan	Three days training
10	systems and modeling	Ovivir, Garat	2005	program on "Simulation
	Systems and modeling		2000	of communication
				systems"
11	Performance of various	SVNIT,Surat	22 Jan	Three days training
	simulators	oviviii, ourat	2005	program on "Simulation
	Similators		2000	of communication
				systems"
12	OFDM simulation-a case study	SVNIT,Surat	22 Jan	Three days training
12	Of Divi Simulation a case study	O VIVIII, Odiat	2005	program on "Simulation
			2000	of communication
				systems"
13	Advance solar Energy	SVNIT,Surat	10 July,	STTP on "Advances in
10	technologies using Electronics	Ovivir, ourat	2000	Solar Energy
	and their applications (paper)		2000	Technology"
14	N. V. Gadadhar Memorial	IETE,	15 Sept.	One day workshop on
• •	lecture on OFDM System	Banglore	2006	RF Technologies and N.
	Stare on or bivi cystom	Dangioro	2000	V. Gadadhar award
				ceremony
15	Software Defined Radio	IETE,	15 Sept.	One day workshop on
10	Contware Defined Natio	Banglore	2006	RF Technologies and N.
		Dangiole	2000	V. Gadadhar award
16	Three hours lecture on OFDM	SCET, Surat	3 <sup>rd</sup> Jan.	ceremony STTP on "Wireless
10	System and OFDM Simulation	JOL I, Julat	2007	Communication and
	System and Or Divi Simulation		2001	Networks"
	Ī			INCIMOLVO

	Tartie i o i e	LETE OL 1	4 Oth	1
17	Multicarrier Communication	IETE Students Forum, ECED, Surat	18 <sup>th</sup> Sept,2008	5 lecture series on wireless communication for which certificates provided to the participants
18	Introduction to MATLAB and Simulink	ECED, SVNIT, Surat	21 <sup>st</sup> Dec, 2009	STTP on Teaching with MATLAB and Simulink
19	2G to 3G convergence with LTE (Invited Keynote talk)	Parul Institute of Engg. And Tech., Vaghodia	4 <sup>th</sup> Dec. 2010	Two days National Conference on Emerging Vistas of Technology-NCEVT10
20	Digital Multimedia Broadcasting	C K Thakur College of Art and Sciences, Panvel	16 <sup>th</sup> Dec. 2010	Two days National seminar on "Contemporary Issues in the field of ICT"
21	Simulation Methodology for Communication systems	ECED, SVNIT, Surat	21 <sup>st</sup> Dec. 2010	Research Group of ECED, SVNIT
22	Advance Mobile Networks	SNJB college, Chandwad, Nasik	5 <sup>th</sup> March, 2011	Invited special lecture
23	OFDM Technology	MNIT, Jaipur	10 <sup>th</sup> January, 2012	STTP on "Optical and Wireless Communication Technologies"
24	Adhoc Networks	Marwadi group of Edu foundations, Rajkot	21 <sup>st</sup> March 2013	Invited special lecture
25	Wireless Sensor Networks	Maliba campus	10 <sup>th</sup> April 2013	Invited special lecture
26	Wireless Sensor Networks	TEQIP, ECED	27 <sup>th</sup> June, 2013	STTP on Wireless and Optical Communication
27	2G to 4G evolution and CDMA Technology	TEQIP, ECED	30 <sup>th</sup> Sept, 2013	STTP on 3G and 4G Technology
28	WiFi and WiMAX	TEQIP, ECED	1 <sup>st</sup> Oct. 2013	STTP on 3G and 4G Technology
29	Mobile Computing	TEQIP, ECED	1st Oct. 2013	STTP on 3G and 4G Technology
30	RF Circuits and Designs	ISF, IETE	1st Feb. 2014	IETE sponsored Students Day
31	Advance Networks	INS, Valsura, Jamnagar	13 <sup>th</sup> June 2014	Invited QIP lecture
32	MIMO Technology	Govt. Engineering college, Amaravati	6 <sup>th</sup> Oct. 2014	IEEE INPAC 2014, Tutorial
33	Femtocell Interference in LTE	Govt. Engineering college , Amaravati	6 <sup>th</sup> Oct. 2014	IEEE INPAC 2014 Keynote and session chair
34	Applications of Digital signal Processing in Communications (Course for 5 days—10 lectures)	INS, Valsura	27 <sup>th</sup> December to 31 <sup>st</sup> December 2014	Invited Lectures at INS Valsura, Jamnagar for their sailors

35	Fundamentals of Wireless Communication-Channel Models	Nirma University, Ahmedabad	16 <sup>th</sup> Dec. 2015	STTP on Wireless Communication
36	Introduction to SDR and MIMO	SGSITS, Indore	30 <sup>th</sup> Nov. 2015	One Week programme on Fundamentals and Applications of SDR and MIMO Communication Systems
37	Advance Networks	IETE Vadodara	17 <sup>th</sup> May 2015	World telecom and Information Society day 2015
38	1G to 5G Evolution	CGPIT, Maliba Campus, Bardoli	22 <sup>nd</sup> Jan, 2016	National Conference on Recent Advances in engineering for Sustainability
39	5G Bandwidth and Resource Management	Laxmi Institute, Sarigram, Vapi	20 <sup>th</sup> Feb. 2016	Apex Forum on Bandwidth Management of 5G
40	Role of Women Safety in National Growth	Vanita Vishram and SGPC	8 <sup>th</sup> March, 2016	Women's day program in Vanita Vishram
41	Long Term Evolution—to 5G	SCET	23 <sup>rd</sup> Feb. 2016	Special Invited Talk for UG and PG
42	LTE-Leading to 5G	ITM Universe, Vadodara	9 <sup>th</sup> April 2016 (Morning session)	National conference – Keynote and session chair in RTEECE2016
43	LTE-Leading to 5G	Parul University, Vaghodia	9 <sup>th</sup> April 2016 (afternoon session)	National conference – Keynote and session chair in NCEVT2016
44	Being a Woman in Men's World	L & T, Hazira	8 <sup>th</sup> March 2012	Special talk on Women's day at L&T Campus
45	Wireless Networks	Govt Polytechnic for Girls	8 <sup>th</sup> June 2017	ISTE and CTE approved STTP on ICT tools for Enhancing Teaching Learning Process
46	Internet of Things	Govt Polytechnic for Girls	8 <sup>th</sup> June 2017	ISTE and CTE approved STTP on ICT tools for Enhancing Teaching Learning Process
47	Wireless Technologies for IoT with MAC and Network Layer Constraints	BVM Engineering College, V.V. Nagar	20 <sup>th</sup> December, 2017	TEQIP III STTP on Designing Wireless, Embedded and IoT Systems
48	Cellular Planning for 5G with optimization Techniques	UBO-IBNM, University of Brest-France	2 <sup>nd</sup> March, 2018	Special invited Lecture for 2 hours

49	5G Technologies	G H Raisoni College Jalgaon	17 <sup>th</sup> March 2018	Whole day seminar on Wireless technologies in 5G—spoke for 4 hours
50	5G Technology and it's Applications	Sri Vasavi Institute of Engineering and Technology, AP	28 <sup>th</sup> May 2020	Special webinar of 2 hoursWebinar online
51	Physical Layer Aspects in 5G/next generation Systems	Kommuri Prasad Reddy Institute of Technology, Hyderabad	19 <sup>th</sup> June 2020	FDP Special talkonline
52	5G: Network Architecture and SDN Webinar online	Parul University, Vaghodia	15 <sup>th</sup> June 2020	Special talk under webinar series during lockdownonline
53	5G: Network Architecture and Software Defined Networking (SDN)	Lokmanya Tilak College of Engineering, Navi Mumbai	28 <sup>th</sup> June 2020	Webinar during Lockdown
54	Al and Machine Learning in Wireless Communications	NMIMS, Shirpur	31 <sup>st</sup> October 2020	Special talk, online
55	Emerging Technologies for Effective Management of the Pandemic	IETE, Surat Subcenter	2 <sup>nd</sup> Nov, 2020	Special talk on Foundation day of IETE

#### **Conferences/ Seminars Attended**

Sr. No.	Title	Institute/Organization		Duration	
			From	То	Days
1.	IETE 47 <sup>th</sup> Annual Convention and Conference on Broadband Systems and Expo2004	IETE, Bhaikaka Hall, Ahmedabad	25/11/2004	26/11/2004	2
2.	IETE one day seminar on Telecommunication	IETE, Vadodara Co-sponsored by BSNL	17/5/2005		1
3.	IETE 48 <sup>th</sup> Annual convention and International Conference on "Information and Communication" and Expo2005	IETE, Hotel Taj Palace, New Delhi	23/11/2005	25/11/2005	3
4.	IE 22 <sup>nd</sup> annual convention and conference on "advances in EC and telecommunications- Vision 2020",	Kund Kund Hall, Jaipur	4/8/2006	5/8/2006	2

5.	International Conference TIES2007	Sathyabhama University, Chennai	12/11/2007	14/11/2007	3
6.	Agilent Measurement Technology seminar	Agilent, Hotel Pride, Ahmedabad	12/11/2008		1
7.	Regional seminar on Wireless Communication and Networking Tech.	Sponsored by IE and IETE, Vaswik Bhavan Vadodara	21/12/2008		1
8.	National Conference WINCON-2009	L & T Institue of Tech, Madh campus, Mumbai-cosponsors IEEE Bombay section and IETE Chapter	9/1/2009	10/1/2009	2
9.	One day workshop on "Intellectual Property Rights"	TEQIP, SVNIT	24/3/2009		1
10.	One day seminar on Economic Growth and National Integration	IIFS, India Habitat Center, Lodhi Road, New Delhi	9/4/2010		1
11.	WASET Conference-2010	Hotel River View Singapore	25/7/2010	27/7/2010	3
12	WASET Conference-2011	Hotel Holiday Inn Paris	27/7/2011	29/7/2011	3
13	ICCEI	Hotel Mercury, Melbourne	2/1/2014	3/1/2014	2
14	NBA World Summit	Hotel Ashoka, New Delhi	8/3/2014	10/3/2014	3
15	ICICT-2015 International Conference on Information and communication technology	Hotel Suba Dubai	12/11/2015	13/11/2015	2
16	ICTIS 2017	Hotel Pride, Ahmedabad	25/03/2017	26/03/2017	2
17	Wireless 2019— Wireless Telecom and IoT	Hotel Aurelia, Rome, Italy	23/10/2019	24/10/2019	2
18	VIWA 2020 One day seminar	Hotel Green park, Chennai	7/3/2020		1
19	RAISE 2020—Artificial Intelligence: Responsible for social empowerment	Online mode	5/10/2020	9/10/2020	5

#### **Glimpse of Foreign conferences**



**Paris 2011** 



Singapore 2010



**Dubai 2015** 



Buffalo-NY 2016



Bangkok 2018 (Reviewer, Keynote speaker and session chair)



Rome 2019 (organizing Committee member and Keynote speaker)

#### **Session Chair in the following Conferences**

WASET conference at Paris 2011 RACCCT-12 SCET, Surat ICCEI 2014 at Melbourne, Australia RCEECE2016 at ITM universe Vadodara NCEVT2016 Parul University Vaghodia ICRISET2020 BVM (Online mode)

#### **Reviewer in Journals and Conferences**

- 1. Reviewer and Editorial Board member of Journal IJCT.
- 2. Reviewer and Editorial Board member of ISTE-ACEEE journals---International Journal of Electronics and Communication (IJEC)
- 3. Reviewer of IEEE transactions on Wireless Communication.
- 4. Reviewer of Journal of Telecommunication Systems, springer
- 5. Reviewer and TPC in various National and International Conferences as follows.
- a. National Conference NCFCA-09, Institute of Information Technology, Pune
- b. National Conference-NUiCONE series, Institute of Tech., Nirma University
- c. International Conference-ICCCS2011, NIT Rourkela) [ACM Proceedings ISBN:978-1-4503-0464-1] 12th to 14th February 2011
- d. International Cnferences-ICAC3-11, Fr. Conceicao Rodrigues College of Engg. Mumbai
- e. International Conference-ICISET 2011, VVP Engg. College, Rajkot
- f. IEEE International conferences Nuicone11 and Nuicone12, Institute of Tech., Nirma University
- g. WCI2013—International Symposium on Women in Computing and Informatics (WCI-2013) August 23-24, 2013, Mysore, India
- h. NCEVT-14 Parul Institute of Technology, Vaghodia Vadodara
- i. Reviewer of journal OE—SPIT
- j. Reviewer of IETE Jounal of research, Taylor and Fransis

#### **BOS** member

- 1. SGSIT, Indore (2016-2018)
- 2. UTU, Bardoli, (2018 to present)
- 3. BVM, VVNagar (2020 onwards)
- 4. Govt. College of Engineering Jalgaon (2018 to present)
- 5. CHARUSAT, Changa (2020 onwards)

Technical Advisory Committee member : SCET, Surat

**Training Programmes and Workshops attended** 

Sr.	Title	Organizer	Sponsored by	Duration
No.				
1	3 days Training Program on "Industry Institute Partnership"	SVRCET	ISTE	10-12 Mar, 1995
2	One day workshop on "Guidance And Counseling"	SVRCET	ISTE	11 Nov. 1995
3	One day Workshop on "Induction Of Engineering College Teachers"	SVRCET	ISTE	16 Dec, 1995
4	One day workshop on "TQM And ISO 9000 In Technical Education"	SVRCET	ISTE	30 Sept,1996
5	Short Term Course on "Specification And Verification Of Real-Time Systems Using Duration Calculus"	SVRCET	United Nations University, International institute of Software Technology, Macau	26-31 Jan,1998

6	Intensive Workshop on	ECED,	Swiss agency	21-25
	"Advanced Microcontrollers"	Faculty of	for Development	Dec,1998
	/ tavariosa iviisiossi tasiisio	Tech.and	and	200,1000
		Engg. MSU,	Cooperation	
		Baroda.	o o o p o r a morr	
7	Short Term Course on "Internet	SVRCET,	(AICTE/ISTE)	15-27 Mar,
-	Unleashed "	Computer	(	1999
		Engg. Dept.		
8	Technoprenuer Development &	E D cell	DSIR, New	30 Nov-2
	Tech. Management	SVRCET	Delhi	Dec,1999
9	Basic Management Skill	E D cell	(AICTE/ISTE)	28-30
	Development	SVRCET	,	Dec,1999
10	Advances in Solar Energy	SVRCET,	(AICTE/ISTE)	3-14 July,2000
	Technology	Mechanical		-
		Engg. Dept.		
11	Rehabilitation of Sick Units	E D cell	DSIR, New	15-17
		SVRCET	Delhi	Mar,2001
12	Faculty Development	SVRCET,	GUJCOST	23 <sup>-</sup> 28 July,
	Programme in Entrepreneurship	Surat		2001
13	STTP on "Digital Stegenography"	ECED,	GUJCOST	28 Jun-3 July,
		SCET, Surat		2004
14	STTP on "Hostel Management,	Continuing	AICTE, ISTE	27-31 Dec,
	Student Health and Welfare"	Education		2004
		Center-		
		SVNIT,		
15	Management Capacity	SVNIT,	TEQIP fund	4-8 Feb. 2008
	Development program for middle	EQUATE	SVNIT	
	level faculty			
4.0		O 4 11 T	TEOID	O 4th B 4
16	One day workshop on	SVNIT	TEQIP	24 <sup>th</sup> March,
4.7	"Intellectual Property Rights"	EOED	ALOTE OVALIT	2009
17	STTP on " Nanotechnology"	ECED,	AICTE, SVNIT	13 to 17 <sup>th</sup> July,
40		SVNIT	HICEE	2009
18	IUCEE 2009 "Teaching with	Mysore	IUCEE	22-26 June,
	MATLAB and SIMULINK"	Training center		2009
10	ILICEE 2010 "Mobile Computing"		ILICEE	21 25 1,000
19	IUCEE 2010 "Mobile Computing"	VIT, Pune	IUCEE	21-25 June, 2010
20	Equility training Draggers on	CV/NIT and	TEOID III	
20	Faculty training Program on	SVNIT and	TEQIP III	24-28 Sontombor
	Internet of Things: Applications in Emerging Technology	MMMUT, Gorakhpur		September 2020
	Linerally reciliology	organized		2020
		Online mode		
			<u> </u>	

#### **Publications**

Sr.	Title	Publisher	Edition	Month & year
No.				of publication
1.	(It is the first book by Oxford press from Gujarat region in the Electronics field )	Oxford University Press, New Delhi	1st total 7th reprints	July 2009 (Available)
2.	Editor of the book +Author of one chapter in the open source book titled  WiMAX Developments: Chapter Title: Adaptive Parameters Based Transmission Control and Optimization in Mobile WiMAX at Physical Layer. Co-author: Dr. Y P Kosta	Intechweb Publication, Vienna, Austria www.intechweb.org	1st	Feb, 2010 Open source book on the net
3.	Selectively Imposed Pilot based Channel Estimation in OFDM With Mobility Aspects for Frame based Transmissions	VDM publication, Verlag Dr Mullar, Germany Printed in UK and USA	Academic publishing	2010

4	Wireless Communication and Networks	Oxford University Press, New Delhi	1 <sup>st</sup>	published in January 2015
	with PPT, MATLAB exercises and solution set			
5	Wireless and Mobile Communication  Weena DALAL MANOJ K. SHUKLA  with PPT, MATLAB exercises and solution set	Oxford University Press, New Delhi	1 <sup>st</sup>	Published in January 2017

**Extra Curricular Activities** 

#### **Technical Activities**

- 1. Jury in various technical model competitions in SVNIT, SS Gandhi and other colleges.
- 2. Jury in paper contest of Mindbend (SVNIT), Kshitij (SCET) and Technical events (CKPCET)
- 3. As a jury member in National Level paper contest on wireless security and Networking, IETE, Vadodara Center on 10<sup>th</sup> Jan, 2010

#### **Review of Books**

- 1. "Principles of Communication Systems" by Taub and Schilling Published by Tata Mc Graw Hill. Review submitted on 12<sup>th</sup> August-2005.
- 2. "Electronic Communication systems, 4e" by Kennedy and Davis. Review submitted on 14<sup>th</sup> Nov. 2005
- 3. New book on "Digital Communication" by R N Mutagi from Oxford publications 2010
- 4. New book on 'Wireless Communication' by Singhal published by TMH 2011
- 5. Book of Digital Communication by Simon Hykin, Wiley, 2020

#### **Editorial work**

- Proceeding of National Conference AWTA-08 published by Excel India
- Proceeding of IEEE international conference ET2ECN-2012 published by IEEE conference publishing services, available on IEEExplore with IEEE Catalog

Number: CFP1273S-PRT

ISBN:978-1-4673-1628-6 DOI: 10.1109/ET2ECN.2012

#### Patents filed

(12) PATENT APPLICATION PUBLICATION		(21) Application No.2570/MUM/2014 A
(19) INDIA		
(22) Date of filing of Application :09/08/2014		(43) Publication Date : 21/11/2014
(54) Title of the invention : A NOVEL SLM-DEE OFDM SYSTEM	P CLIPPING BA	ASED PAPR REDUCTION TECHNIQUE IN DCT PRECODED
(51) International classification	:H04L29/06, H04K1/10	(71)Name of Applicant : 1)Sardar Vallabhbhai National Institute of Technology
(31) Priority Document No	:NA	Address of Applicant :SVNIT Campus, Ichchhanath, Surat, -
(32) Priority Date	:NA	395007 Gujarat India
(33) Name of priority country	:NA	(72)Name of Inventor :
(86) International Application No	:NA	1)Shilpi Gupta
Filing Date	:NA	2)Ketan H Agraval
(87) International Publication No	: NA	3)Dr. Upena Devang Dalal
(61) Patent of Addition to Application Number	:NA	' ·
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract

(7) Assistate.

Present invention relates to high speed wireless communication systems. More particularly, present invention relates to OFDM-based wireless Communication systems. Proposed PAPR Reduction technique of instant invention involves, generating OFDM signal; DCT-Precoding; Applying SLM Technique; Applying clip or deep clip; and Measuring PAPR of OFDM signal.

No. of Pages: 16 No. of Claims: 8



#### **Research Projects**

- National mission pedagogy project of IIT Kharagpur...Developed course on Optical Communication and reviewed course on Mobile Communication main developer. And reviewer of Mobile Communication course of the same pedagogy project.
- 2. MoU with ISRO for IRNSS Navigation Receiver Field Trial and Data Collection. Receiver— Fixed and mobile unit given by ISRO to the department and data is sent on weekly basis
- 3. PI---Strengthening IRNSS receiver by mitigation of interference –Project worth Rs 31.21 lakhs (September 2017 to September 2019)
- 4. Mentor of the project Fractal Antenna design done by Dr Kirti Inamdar duration(2018-21), funded by DST, funding of Rs 30 lakhs.
- 5. Co-PI of Cognitive Radio Testbed design project by NPIU TEQIP III, worth Rs 18 lakhs, Pi DR Sanjay Soni, MMMUT Gorakhpur.

#### **Consultancy work**

- 1. MoU with Indian Navy in October 2015 for five years, under which M. Tech Guided to Left. Commanding officer Mr Mahesh. A one week course on Applications of DSP conducted at INS Valsura, QIP lecture delivered etc.
- 2. Two short duration Training programs for Indian railways Supervisors and Engineers of western zone
- 3. Sensor node design and middleware design for supply chain management, allotted by SCMxpert, USA, Rs 2 lakhs

#### Additional remarks:-

- a. Significant contributions: Mainly contributed in the field of Communication, specifically wireless communication and done the major work in 4G/5G technologies like CDMA and OFDM, still doing. Contribution is in form of effective teaching and literature/publications. Presently work towards DSP based OFDM system development may lead to OFDM system trainer.
- b. The book authored is for Final year UG as well as PG students specially and listed under best sellers. Majorly adopted in Anna University and institutes in Madhya-pradesh region.
- c. Majority of the subjects taught are self prepared as there were very less resources before 10 years. Her significant initiatives made her a role-model in the department.
- d. Giving recommendation letters to the students for further studies abroad (150+).
- e. Guided M Tech by research to a person from E-infochip, Ahmedabad, which is for the development of WiMAX chip.
- f. Inspirations for the womanhood, because there are very less percentage of the female involved in engineering and especially for Communication engineering.
- g. E-governance using wireless technologies- project under nominee will help the e-governance department of India for finding better solutions for rural area communication

#### Major Administrative Positions

Head of Electronics Engineering Department from June 2014 to June 2016 Associate Dean Faculty welfare June 2016 onwards Dean Academic IIIT, Surat from June 2018 onwards

Sr. No.	Department Level Activities
1	Time table committee member during 1999-2001
2	Lab development activities in terms of purchase and maintenance and new projects development.
3	Alumni activities: Treasurer for the Electronics Deptt. Alumni Association established in 2000-2001 and continued for one and a half year. Thereafter the association was merged in the Institutional common alumni association.
4	Library In-charge for 2004-06. Collected more than 100 books for the department. Established departmental library.
5	Paper setting, Examination work, supervision and practical related duties
6	Active participation in revision of syllabus work number of times. Member of Departmental board of UG and PG studies
7	Active and leading participation in making proposal and framing syllabus for Commencement of M.Tech (Communication Systems) in ECED.

8 more than 200 seminars guided to the UG students till now mostly in communication field.

#### B.E./ B. Tech. Projects Guided

- Programmable Alarm-hardware (91-92)
- Cordless Intercom-Hardware (91-92)
- Utility board for interfacing IBM compatible PC to PAL TV receiverhardware/software(93-94)
- 4-station 2-way Intercom-hardware (93-94)
- Development of voice-data integrating system for ISDN-hardware(94-95)
- Basic Receiver system for the paging Network-hardware (94-95)
- Basic Transmission system for paging network-hardware(95-96)
- Direct sequence spread spectrum modulator-demodulator hardware(96-97)
- ISDN-basic design using PCM technique-hardware(96-97)
- Paging system transmitter and receiver(96-97)
- Frame generation through synchronous TDM of 16 channels-hardware(98-99)
- Error control on a point to point link-Hardware/software(98-99)
- Digital matched filter correlator for long code sequences in DSSShardware/software(98-99)
- Time slot interchanging for switch design(TSI) -hardware/software(98-99)
- Establishment of LAN-hardware/software (99-2000) [group of 16 students]
- Data and voice integration for ISDN-hardware(2000-01)
- Speaker verification and recognition using MATLAB(speech processing) software(2000-01)
- Voice scrambling and descrambling using hardware and its computer simulation(2001-02)
- CDMA simulation using MATLAB and its link testing(2001-02)
- Image compression using MATLAB(2001-02)
- Controlling electrical appliances using microprocessors over established LAN Hardware/software(2002-03)
- Spread spectrum radio design-hardware/software(2002-03)
- Laboratory simulation of Multi-path fading effect in mobile cellular communication-Rayleigh fade simulator Hardware/software(2002-03)project was appreciated a lot by Reliance and on the basis of which one student got the placement
- Orthogonal frequency division multiplexing using MATLAB(2004-05)
- OFDM using Code Composer Studio simulator(2004-05)
- Cell site design using MATLAB simulator(2005-06) work in progress
- Pulse shaping in OFDM system for spectral efficiency (2005-06) in continuation with previous projects on OFDM—work is published
- OFDM system implementation using software defined radio approach on DSP kit.(2006-07)
- Turbo coded OFDM (2006-07)
- Hybrid OFDM (2006-07)
- Wireless sensor network physical layer implementation using DSP starter kit (2007-08)
- Channel estimation in OFDM with imposed pilot setting (2008-09)
- Channel estimation in OFDM using Kalman filter (2008-09)
- OFDM system performance with cyclic prefix (2009-10)
- Analysis of MAC layer in WiMAX IEEE 802.16 and scheduling algorithms—simulations by NS2 (2010-11)
- LTE Physical layer—Design and Implementation using SYSTEMVIEW (2011-12)
- Joint source and channel coding of Digital Video (2012-13)

Further to be upgraded

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#### M. Tech projects

- M. Tech Dissertation on "OFDM system simulation, link testing and BER analysis with M-PSK and M-QAM mapping" –(2006-07)- work is published (2006-07)
- DWDM link simulation on Photonic CAD(2007-09)
- JPEG immune digital watermarking ((2007-08)
- Wireless control system using DSP processor based hardware design (2007-08)
- Image compression using wavelet transforms.(2007-09)
- Image Compression by SPIHT algo.(2008-09)
- Turbo coding in WCDMA system(2008-09)
- Iris recognition based system with memory optimization (2008 onwards- currently working)
- E-governace using wireless technology(2009 onwards- currently working)
- WiMax physical layer design(2009 onwards- currently working)
- Four students combinedly working on "DSP based implementation of OFDM system using SDR approach" (2009)
- Spectrum sensing Techniques for Cognitive radio (2011)
- AODV and RAODV—simulations and comparison.
- LTE Physical Layer with Cognitive Aspects (2013)

Reports available in the department

Ph. D. Scholars	24
M.Tech. Dissertations	M.Tech. –17,
	M.Tech.by
	Research-5
M. Tech. Seminars	18

Member of PG and Ph. D. candidate's selection committees.

#### List of completed/ongoing Ph D titles Supervised by me

- Rakesh Jha----WiMAX Infrastructure Modeling Using OPNET Modeler With LBRRA Scheme Optimization, Attack Modeling And Security Analysis With Proposed Solutions
- Vishal Wankhede---Optimized Resource Allocation for Physical Layer of Mobile WiMAX Network Applied in Scheduling of Scalable Video Multicast
- Shweta Shah---A Novel Modified Hierarchical Modulation for Video streaming in DVB-H Under Channel Impairments
- Shilpi Gupta---Performance Analysis of Novel Robust Non-conventional Combinations of Mapping and Transform Techniques at Modulation Stage of OFDM System over Multipath Fading Channel
- Jay Joshi-- -Development and Analysis of Selective Encryption Algorithm for Sensitive Video Applications
- Zuber Patel---Novel DWLC-FQ and BAFPQ Algorithms for Scheduling in WiMAX Enhancing Interclustering with LL-WRR and RED-AT
- Vishakha Bhale---0.18 μm CMOS 3-5 GHz IR Ultra Wide Band transceiver Design
- Krupa Jariwala---A Robust Eye-Gaze Interface to Point and Select Task with Small targets for real Time Interface Using Low Grade Video Camera

- Shubhangi Mahamuni---Spectrum and Handover Management and Handoff Delay Minimization for Cognitive Radio Adhoc N/W
- Twinkle doshi---Novel DS-UWB Receiver over Different UWB Channels
- Khyati Zalawadia—Design and Testing of Prototype calibration Unit of Receiving End 2-Beam Digital Beam-former for Future ISRO Satellite/On-board System
- Nehal Shah—Hardware Efficient Block Matching Algorithm and Architecture Implementation for Fast Video Motion Estimation
- Idris Bholebawa---Software Defined Networking Architecture and Performance Analysis of Open flow Network
- P K Shah---Stability Analysis of 2-D PSV systems and Its Applications –Lypunav Stability
- Mary Grace Shajan--Intercell Interference Management in LTE Advanced Heterogeneous Networks(left PhDafter RPS 6)
- Sonal Parmar---Total Electron Content Measurement Using GPS and IRNSS Signals at Low Latitude Station Surat
- Vinay Singh---Combating LED nonlinearity by PAPR reduction of OFDM in visible light communication system for high speed indoor applications
- Mehul Patel---LTE MAC Layer Design and Implementation with Scheduling and Resource management (Left after RPS 6)
- Swati sakhare---Reduction of Computational Complexity using PSO and DTCWT in HEVC Intra prediction with better PSNR
- Dhananjay Patel—Mitigating transmitter non-linearity and fiber impairments in radio over fiber technology in passive optical networks
- Sarosh Dastur---Cellular planning and heterogeneous network optimization for the next generation wireless mobile communication
- Bhoomika Patel---5G waveform generation for VANET using AI
- Kunjal Tandel—Indian classical raga generation using deep learning methods
  - Amit Joshi---VLSI Implementation of Video watermarking Based on H.264 coding Standard (I/C Supervisor just for completion of viva voce)
  - Abhilash Mandloi---Segmentation Based Channel Scheduling Algorithms for Improving Channel Utilization in OBS Networks (I/C Supervisor just for completion of viva voce)

#### Institute Level Activities

Sr.	Name of Activity
No.	
1	In-charge of paper assessment for B.E.2 <sup>nd</sup> in year 2002
2	Cultural committee member for 15 years till 2007. Also contributed for
	auditions during the programs and participated in the musical evenings.
3	Active participation in Mind-band activities by the students faculty
	advisor etc. especially in 1995, 1996, 2000
4	Media center (TEQIP) committee member. Purchase for
	Total Audio solution and Total Video Solution to have a complete Media
	Center in form of well equipped multimedia classroom- 2005
5	Institutional Networking Committee member (under TEQIP)
6	Central library committee member for two years 2004-2006
7	Registration Committee member during Convocation- 20th August, 2005,
	other contribution in convocation.
8	Institute level purchase committee member since 2011

Developing the Advance Lab in RF and Wireless Communication. Partially funded by SVNIT, TEQIP and Agilent Technologies.

Co-developer of Subject Optical Communication for the MHRD sponsored Pedagogy project of IIT Kharagpur

Member of Departmental Academic Advisory Committee.

Member of DRCC Departmental research and consultancy committee

Wireless communication U Dalal Oxford University Press	<u>43</u>	2009
Performance analysis of SDN/OpenFlow controllers: POX versus floodlight IZ Bholebawa, UD Dalal Wireless Personal Communications 98 (2), 1679-1699	<u>41</u>	2018
A survey of mobile WiMax IEEE 802.16 m standard  J Rakesh, U Dalal arXiv preprint arXiv:1005.0976	<u>36</u>	2010
Security comparison of wired and wireless network with firewall and Virtual Private Network (VPN) YP Kosta, UD Dalal, RK Jha	<u>36</u>	2010
2010 International Conference on Recent Trends in Information  Location based performance of WiMAX network for QoS with optimal base stations (BS)  RK Jha, IZ Bholebawa, UD Dalal Scientific Research Publishing	<u>34</u>	2011
A journey on wimax and its security issues  RK Jha, UD Dalal  International Journal of Computer Science and Information Technologies 1 (4	<u>33</u>	2010
Performance analysis of proposed OpenFlow-based network architecture using mininet IZ Bholebawa, RK Jha, UD Dalal	<u>31</u>	2016
Wireless Personal Communications 86 (2), 943-958  A performance comparison of routing protocols (DSR and TORA) for security issue in MANET (Mobile Ad Hoc Networks)  RK Jha, SV Limkar, DU Dalal  IJCA Special Issue on MANETs (2), 78-83	<u>31</u>	2010
A comparative performance analysis of OFDM using MATLAB simulation with M-PSK and M-QAM mapping JN Patel, UD Dalal International Conference on Computational Intelligence and Multimedia	<u>29</u>	2007
Implementation of pulse shaping techniques in OFDM system  D Gandhi, S Gupta, UD Dalal International Journal of Computer Applications 68 (10)	<u>24</u>	2013
WiMAX system simulation and performance analysis under the influence of jamming R Jha, H Patel, UD Dalal, WA Vishal	<u>21</u>	2010
Design and performance analysis of OpenFlow-enabled network topologies  using Mininet  IZ Bholebawa, UD Dalal	<u>19</u>	2016
Abatement of PAPR for ACO-OFDM deployed in VLC systems by frequency modulation of the baseband signal forming a constant envelope	<u>15</u>	2017

Design and implementation of low latency weighted round Robin (LL-WRR) scheduling for high speed networks Z Patel, U Dalal	<u>14</u>	20	14
International Journal of Wireless & Mobile Networks 6 (4), 59-71  E-governance in rural india: Need of broadband connectivity using wireless technology  C Kalpana, D Upena, J Rakesh Wireless Engineering and Technology 2011	<u>13</u>	20	11
A performance comparison with cost for QoS application in on-demand cloud computing RK Jha, UD Dalal 2011 IEEE Recent Advances in Intelligent Computational Systems, 011-018	<u>11</u>	20	11
A fast Hartley transform based novel optical OFDM system for VLC indoor application with constant envelope PAPR reduction technique using frequency modulation  VK Singh, UD Dalal	<u>10</u>	20	17
Optics Communications 400, 128-135  Assessment of fiber chromatic dispersion based on elimination of second-order harmonics in optical OFDM single sideband modulation using Mach Zehnder modulator	<u>10</u>	20	16
D Patel, VK Singh, UD Dalal Fiber and Integrated Optics 35 (4), 181-195  On demand cloud computing performance analysis with low cost for QoS	<u>10</u>	20	11
application RK Jha, UD Dalal 2011 International Conference on Multimedia, Signal Processing and			
Notice of Violation of IEEE Publication Principles: A Performance Comparison of Routing Protocols for Security Issue in Wireless Mobile Ad Hoc Networks RK Jha, SV Limkar, UD Dalal 2010 3rd International Conference on Emerging Trends in Engineering and	<u>10</u>	20	10
Wireless Communication and Networks U Dalal Oxford University Press		9	2 0 1 5
Performance analysis under the influence of jamming for WiMAX system RK Jha, SV Limkar, UD Dalal 2011 Second International Conference on Emerging Applications of Information		9	2 0 1 1
Optimized configurable architecture of modulation techniques for SDR applications J Oza, Y Patel, P Trivedi, N Ranpura, Z Patel, U Dalal, R Jani, SR Vijay International Conference on Computer and Communication Engineering (ICCCE'10		9	2 0 1 0
Study of L5 band interferences on IRNSS S Ruparelia, P Lineswala, D Jagiwala, MV Desai, SN Shah, UD Dalal Proceedings of the International Conference on Global Navigation Satellite		8	2 0 1 5

Design and Optimization of CMOS 0.18 [mu] m Low Noise Amplifier for Wireless Applications  VP Bhale, UD Dalal International Journal of Information and Electronics Engineering 4 (2), 92	8	2 0 1 4
A comparative analysis of AODV and R-AODV routing protocols in MANETS P Das, UD Dalal International Journal of Computer Applications 72 (21)	8	2 0 1 3
Selective encryption using ISMACryp in real time video streaming of H. 264/AVC for DVB-H application  JM Joshi, UD Dalal  World Academy of Science, Engineering and Technology 55	8	2 0 1 1
Comparative analysis of optimization techniques for optimizing the radio network parameters of next generation wireless mobile communication S Dastoor, U Dalal, J Sarvaiya 2017 Fourteenth International Conference on Wireless and Optical	7	2 0 1 7
Performance analysis of single sideband modulation technique using Mach Zehnder Modulator based on different phase angles of electrical hybrid coupler D Patel, VK Singh, UD Dalal Optik 128, 93-100	7	2 0 1 7
Hardware efficient double diamond search block matching algorithm for fast video motion estimation  NN Shah, UD Dalal  Journal of Signal Processing Systems 82 (1), 115-135	7	2 0 1 6
Hough transform and cepstrum based estimation of spatial-invariant and variant motion blur parameters MJ Shah, UD Dalal 2014 International Conference on Advances in Electronics Computers and	7	2 0 1 4
Novel analytical approach of non conventional mapping scheme with discrete Hartley transform in OFDM system S Gupta, U Dalal, VN Mishra American Journal of Operations Research 2014	7	2 0 1 4
Characteristic analysis of hierarchical and non-hierarchical modulation for dvb-h S Shah, UD Dalal International Journal of Computer Applications 59 (1), 20-23	7	2 0 1 2
Location based radio resource allocation (LBRRA) in WiMAX and WLAN network RK Jha, UD Dalal 2011 World Congress on Information and Communication Technologies, 399-406	7	2 0 1 1
Adaptive beam former design using RLS algorithm for smart antenna system KR Zalawadia, TV Doshi, UD Dalal 2011 International Conference on Computational Intelligence and	7	2 0 1 1
Resource allocation for downlink OFDMA in WiMAX systems  AW Vishal, J Rakesh, U Dalal  Proceedings of the 2011 International Conference on Communication, Computing	7	2 0 1 1

Analysis of second order harmonic distortion due to transmitter non-linearity and chromatic and modal dispersion of optical OFDM SSB modulated signals in SMF-MMF fiber links  D Patel, VK Singh, UD Dalal Optics Communications 383, 294-303	6	2 0 1 7
Performance analysis of proposed network architecture: OpenFlow vs. traditional network  IZ Bholebawa, RK Jha, UD Dalal International Journal of Computer Science and Information Security 14 (3), 30	6	2 0 1 6
Performance on ICI Self-Cancellation in FFT-OFDM and DCT-OFDM System S Gupta, U Dalal, VN Mishra Journal of Function Spaces 2015	6	2 0 1 5
Improved CAC Scheme for WiMAX with Adaptive Bandwidth Reservation and Degradation Policy Z Patel, U Dalal Int'l Journal of Computing, Communications & Instrumentation Eng.(IJCCIE) 2	6	2 0 1 5
DCT-SVD based channel estimation technique in IEEE 802.16 e DL-PUSC system MV Desai, S Gupta, UD Dalal 2014 2nd International Conference on Emerging Technology Trends in	6	2 0 1 4
Detection and fortification analysis of wimax network: With misbehavior node attack RK Jha, IZ Bholebawa, UD Dalal, AV Wankhede Scientific Research Publishing	6	2 0 1 2
Security Analysis of WiMAX Network: With Misbehavior Node Attack RK Jha, UD Dalal 2011 World Congress on Information and Communication Technologies, 391-398	6	2 0 1 1
A performance comparison with modulation schemes in WiMax physical layer security aspect RK Jha, UD Dalal International Journal of Computer Applications 6 (8), 24-27	6	2 0 1 0
A Survey of Mobile WiMAX IEEE 802.16 m RK Jha, AV Wankhede, UD Dalal International Journal of Computer Science and Information Security 8 (1	6	2 0 1 0
WIMAX New Developments UD Dalal, YP Kosta	6	2 0 0 9
A 3–7 GHz CMOS Power Amplifier Design for Ultra-Wide-Band Applications VP Bhale, U Dalal Advances in VLSI and Embedded Systems, 235-246	5	2 0 2 1
Performance analysis of optical double sideband and optical single sideband generation using mach zehnder modulator chirp and extinction ratio over different fiber link  D Patel, VK Singh, U Dalal 2017 2nd International Conference for Convergence in Technology (I2CT), 721-726	5	2 0 1 7

Implementation and evaluation of dynamically weighted low complexity fair queuing (DWLC-FQ) algorithm for packet scheduling in WiMAX networks Z Patel, U Dalal China Communications 13 (5), 128-140	5	2 0 1 6
A real time robust eye center localization using geometric eye model and edge gradients in unconstrained visual environment KN Jariwala, A Nandi, UD Dalal International Journal of Computer Applications 128 (1), 22-27	5	2 0 1 5
Blind estimation of motion blur kernel parameters using Cepstral domain and Hough transform MJ Shah, UD Dalal 2014 International Conference on Advances in Computing, Communications and	5	2 0 1 4
Performance Comparison of Discrete Hartley Transform (DHT) and Fast Fourier Transform (FFT) OFDM System in AWGN Channel VK Singh, S Gupta, UD Dalal International journal of computer applications 975, 8887	5	2 0 1 3
Performance analysis of black hole attack on wimax-wlan interface network RK Jha, UD Dalal, IZ Bholebawa 2012 Third International Conference on Computer and Communication Technology	5	2 0 1 2
Location based radio resource allocation (LBRRA) in WiMAX and WiMAX-WLAN interface network RK Jha, UD Dalal 2012 Fourth International Conference on Communication Systems and Networks	5	2 0 1 2
Location based wimax network optimization: Power consumption with traffic load RK Jha, UD Dalal Proceedings of the 1st International Conference on Wireless Technologies for	5	2 0 1 1
Integration of frequency modulated constant envelope technique with ADO-OFDM to impede PAPR in VLC VK Singh, UD Dalal Optics Communications 418, 80-87	4	2 0 1 8
Investigation of LED non-linearity on DCO-OFDM and ACO-OFDM in VLC systems using multichip RGB LEDs for indoor applications VK Singh, UD Dalal Procedia computer science 143, 852-859	4	2 0 1 8
A novel wavelength reused bidirectional RoF-WDM-PON architecture to mitigate reflection and Rayleigh backscattered noise in multi-Gb/s m-QAM OFDM SSB upstream and downstream  D Patel, UD Dalal Optics Communications 390, 26-35	4	2 0 1 7
Optimization of CMOS 0.18 µm Low Noise Amplifier using NSGA-II for UWB Applications VP Bhale, UD Dalal International Journal of VLSI Design & Communication Systems 5 (5), 59	4	2 0 1 4
Mobile Governance based on WiMAX Connectivity for Rural Development in India K Chaudhari, UD Dalal, R Jha International Journal of Computer Network and Information Security 4 (4), 49	4	2 0 1 2

Comparison of BER Performances for Conventional and Non-Conventional Mapping Schemes Used in OFDM R Parmar, S Gupta, U Dalal International Conference on World Academy of Science, Engineering and	4	2 0 1 1
Performance of location based WiMAX network for QoS with optimal base stations (BS)  RK Jha, UD Dalal, S Limkar, Bl Zoherbhai 2011 International Conference on Emerging Trends in Electrical and Computer	4	2 0 1 1
A Performance comparison for QoS with different WiMAX environment for video application RK Jha, SV Limkar, U Dalal Proceedings of the International Conference & Workshop on Emerging Trends in	4	2 0 1 1
Simulation of nlos wimax-ieee 802.16 e physical layer using mimo doppler channel model with imposed comb pilots UD Dalal, YP Kosta 2009 International Conference on Advances in Recent Technologies in	4	2 0 0 9
Cellular planning for next generation wireless mobile network using novel energy efficient CoMP SK Dastoor, U Dalal, J Sarvaiya Cluster Computing 22 (2), 4611-4623	3	2 0 1 9
An efficient calibration scheme for satellite onboard receive digital beamformer K Zalawadia, P Jain, H Shah, U Dalal IETE journal of research 61 (6), 590-596	3	2 0 1 5
A Study of diurnal variation of Ionospheric Scintillation effects on GPS signals at low latitude equatorial anomaly station, Surat, India S Parmar, U Dalal, KN Pathak 2015 International Conference on Industrial Instrumentation and Control	3	2 0 1 5
3D-image restoration technique using Genetic Algorithm to solve blurring problems of images M Shah, UD Dalal The Imaging Science Journal 62 (7), 365-374	3	2 0 1 4
Comparison of Channel Estimation in Mobile WiMAX (IEEE 802.16 e) DL-PUSC System S Gupta, MV Desai, UD Dalal International Journal of Computer Applications 84 (7), 18-21	3	2 0 1 3
Design and Implementation of KASUMI Algorithm in ISMACryp Encryption for Video Content Protection in DVB-H Application JM Joshi, KR Parmar, UD Dalal Advanced Materials Research 403, 3847-3853	3	2 0 1 2
Enhancing selective ISMACryp video encryption for real time applications in handheld devices  JM Joshi, UD Dalal TENCON 2011-2011 IEEE Region 10 Conference, 274-278	3	2 0 1 1
BER performance analysis of CDMA forward link TV Doshi, KR Zalawadia, UD Dalal 2011 International Conference on Computational Intelligence and	3	2 0 1 1

A Performance of Security Aspect in WiMAX Physical Layer with Different Modulation Schemes RK Jha, S Limkarl, UD Dalal International Conference on Advances in Computing, Communication and Control	3	2 0 1 1
Real time Wireless Data Acquisition and Fault Monitoring using DSP processor TMS320F2812 with CPLD interface DC Shah, UD Dalal 2nd International Conference and workshop on Emerging Trends in Technology	3	2 0 1 1
Performance comparison of intelligent jamming in rf (physical) layer with wlan ethernet router and wlan ethernet bridge RK Jha, UD Dalal 2010 ITU-T Kaleidoscope: Beyond the Internet?-Innovations for Future	3	2 0 1 0
Adaptive Parameters Based Transmission Control and Optimization in Mobile WiMAX at Physical Layer UD Dalal, YP Kosta WIMAX New Developments	3	2 0 0 9
Assessment of the dc bias to mitigate the clipping noise in dco-ofdm, aco-ofdm; and non-linear distortion of dfb laser transmitted through dispersive single mode fibers in im  D Patel, VK Singh, UD Dalal Wireless Personal Communications 96 (1), 341-360	2	2 0 1 7
Performance evaluation of optical OFDM in direct detected systems based on MZM bias and drive voltages D Patel, VK Singh, UD Dalal Telecommunication Systems 65 (4), 771-781	2	2 0 1 7
On the effect of the extinction ratio and the modulation index on optical up conversion using DSBSC modulation and transmitting over different fiber links  D Patel, VK Singh, UD Dalal Optik 127 (24), 11845-11853	2	2 0 1 6
Highly secure and fast video encryption using minimum overhead in H. 264/AVC bitstream  JM Joshi, UD Dalal  Journal of Testing and Evaluation 44 (4), 1461-1472	2	2 0 1 6
A 100Mbps Visible Light Communication System using Optical Wireless Channel for Indoor Application Based on Composite White Light Generated using RGB LEDs VK Singh, D Patel, UD Dalal Procedia computer science 93, 655-661	2	2 0 1 6
Novel DS-UWB Partial RAKE Receiver Over Different UWB Channels T Doshi, U Dalal IETE Journal of Research 61 (6), 649-658	2	2 0 1 5
Multi Point Search Pattern for Fast Search Motion Estimation of High Resolution Video Coding  NN Shah, UD Dalal, PH Prajapati International Journal of Image, Graphics and Signal Processing 7 (7), 60	2	2 0 1 5
A low power 35 GHz CMOS high linearity, unconditional stability and excellent gain flatness UWB power amplifier design using current reused technique V Bhale, U Dalal International Journal of Ultra Wideband Communications and Systems 3 (2), 51-58	2	2 0 1 5

Performance Analysis of Eye localization Methods for Real Time Vision Interface using Low Grade Video Camera K Jariwala, U Dalal International Journal of Computer Applications 114 (2)	2	2 0 1 5
Impact of GOP size on individual and combined scalability in H. 264/SVC NN Shah, UD Dalal 2013 International Mutli-Conference on Automation, Computing, Communication	2	2 0 1 3
Study and design narrow band phase shift beamformer KR Zalawadia, TV Doshi, UD Dalal 2013 International Conference on Intelligent Systems and Signal Processing	2	2 0 1 3
Resource Allocation in Mobile WiMAX Network: An Optimal Approach RK Jha, UD Dalal, AV Wankhade arXiv preprint arXiv:1211.1782	2	2 0 1 2
Investigation of Internet Key Exchange (IKE) in Terms of Traffic Security with Gateway Security (GSE) in WiMAX Network RK Jha, AV Wankhede, UD Dalal IJCA Special Issue on Network Security and Cryptography (NSC), 59-66	2	2 0 1 1
A Review on Terrestrial Multimedia Communication using OFDM Technology S Shah, U Dalal World 5	2	2 0 1 1
Resource allocation algorithm for WiMAX systems  AW Vishal, J Rakesh, U Dalal  2011 IEEE Symposium on Computers & Informatics, 753-758	2	2 0 1 1
Study of issues related to adaptive channel estimation in OFDM system-MWBA aspects UD Dalal, YP Kosta, KS Dasgupta 2007 Third International Conference on Wireless Communication and Sensor	2	2 0 0 7
Analysing impact of major solar flares on ionospheric total electron content using NavIC signals S Parmar, U Dalal, K Pathak CURRENT SCIENCE 118 (3), 392	1	2 0 2 0
Mitigation of RB noise in bidirectional fiber transmission systems based on different OFDM SSB techniques M Patel, A Darji, D Patel, U Dalal Optics Communications 426, 273-277	1	2 0 1 8
Register array-based sum of absolute difference processor with parallel memory system for fast motion estimation  NN Shah, UD Dalal  IET Computers & Digital Techniques 12 (3), 95-104	1	2 0 1 7
Single-shot blind uniform motion deblurring with ringing reduction MJ Shah, U Dalal The Imaging Science Journal 65 (8), 484-499	1	2 0 1 7
MAC and Network Layer Issues and Challenges for IoT U Dalal, S Shah, J Patel	1	2

The Internet of Things: Foundation for Smart Cities, eHealth, and Ubiquitous			
A comparative analysis of ionospheric effects on Indian Regional Navigation System (IRNSS) signals at low latitude region, Surat, India using GDF and m			1
S Parmar, U Dalal, K Pathak International Conference on Future Internet Technologies and Trends, 126-136			
Performance evaluation of a single mode-multi mode cost efficient fiber lin 4/16/64 QAM gigabit OFDM MMW transmission using different MZM modu schemes  D Patel, VK Singh, U Dalal 2017 2nd International Conference for Convergence in Technology (I2CT), 527-530			1
Efficient Dimensioning and Deployment Criteria for Next Generation Wirele Network S Dastoor, U Dalal, J Sarvaiya International Conference on Information and Communication Technology for	ess N	Mobile	1
Issues, solutions and radio network optimization for the next generation heterogeneous cellular network—A review S Dastoor, U Dalal, J Sarvaiya 2017 International Conference on Wireless Communications, Signal Processing	1	2017	
Hardware Efficient Architecture with Variable Block Size for Motion  Estimation  NN Shah, H Singapuri, UD Dalal  Journal of Electrical and Computer Engineering 2016	1	2016	
A robust eye gaze estimation using geometric eye features K Jariwala, U Dalal, A Vincent 2016 Third International Conference on Digital Information Processing, Data	1	2016	
Energy Detection Based Sensing and Primary User Traffic Classification for Cognitive Radio UB Trivedi, UD Dalal International Journal of Electronics and Communication Engineering 10 (6	1	2016	
Detecting ionospheric irregularities using empirical mode decomposition of TEC for IRNSS signals, at SVNIT, Surat, India S Parmar, U Dalal, KN Pathak Commun Appl Electron: CAE 7 (8), 22-29	1	2015	
Reconfigurable stimulus generator for receive beamformer test—bed KR Zalawadia, N Mishra, H Shah, UD Dalal International Journal of Computer Applications 117 (5), 4-9	1	2015	
A high stability and excellent gain flatness 3–5 GHz 0.18 µm CMOS low noise amplifier for ultra-wide-band applications  VP Bhale, UD Dalal, RM Patrikar  2014 2nd International Conference on Devices, Circuits and Systems (ICDCS), 1-6	1	2014	
Enhancing Capability of DVB-H by Three Layer Hierarchical Mapping S Shah, U Dalal IETE Technical Review 31 (2), 162-167	<u>1</u>	2014	
MV compensation attack on fast selective video encryption  JM Joshi, UD Dalal Int J Comput Eng Res 4 (1), 32-38	<u>1</u>	2014	

Performance evaluation and comparison of queue scheduling schemes for WiMAX under heterogeneous traffic ZM Patel, UD Dalal	1	2013
2013 International conference on Circuits, Controls and Communications  On the Simulation of BER Performances for Transform Schemes  Used in OFDM  S Gupta, UD Dalal  International Journal of Computer Applications 61 (5)	1	2013
Implementation and analysis of downlink scheduling for IEEE 802.16 using controlled priority queuing ZM Patel, UD Dalal Proceedings of International Conference on Advances in Computing, 399-406	1	2013
Histogram matching attack on selective perceptual video encryptions in H. 264/AVC JM Joshi, UD Dalal 2012 Annual IEEE India Conference (INDICON), 357-360	1	2012
BER Performance For OFDM Using Non-Conventional Transform and Non-Conventional Mapping Schemes S Gupta, DU Dalal nternational Journal of Emerging Technology and Advanced Engineering 2 (3)	1	2012
Location based radio resource allocation (LBRRA) for WiMAX  networks  RK Jha, UD Dalal  2011 Fifth IEEE International Conference on Advanced Telecommunication	1	2011
Hardware implementation of wavelet based speech encryption for end-to-end security in mobile communication system  JM Joshi, U Dalal Int. J. of Recent Trends in Engineering and Technology 4 (4)	1	2010
How WiMAX will deploy in India RK Jha, UD Dalal, S SVNIT IJACSA Editorial, 50	1	2010
An efficient approach for iris recognition by improving Iris segmentation and Iris Image Compression KN Jariwala, UD Dalal International Journal of Arts and Sciences 3 (1), 1-8	1	2009
Computational complexity reduction in HEVC intra prediction using dual tree complex wavelet transform and holoentropy SV Sakhare, UD Dalal Asian Journal For Convergence In Technology (AJCT) 6 (2), 16-27		2020
Two-Level HM with Dual Constellation Mapping Level 2 for DVB-H U Dalal Journal of Multimedia Technology & Recent Advancements 1 (2), 12-18		2020
High efficiency coding for surveillance videos based on selective based fast intra coding SV Sakhare, U Dalal Multimedia Tools and Applications, 1-23		2020

Improving PSNR and Processing Speed for HEVC Using Hybrid PSO for Intra Frame Prediction	2020
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# WiMAX and Its Security Issues: Location Based Performance Optimization and Security Analysis (LBPOSA) RK Jha, UD Dalal

# AN EFFICIENT APPROACH FOR IRIS RECOGNITION BY IMPROVING IRIS SEGMENTATION AND IRIS IMAGE ENHANCEMENT

KN JARIWALA, UD DALAL

#### Genetic Algorithm for Resource Allocation in WiMAX Network

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