

BIO DATA



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4	Office Address	Department of Electronics Sardar Patel University, Vallabh Vidyanagar.388120 Gujarat. India.
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6	Birth date	4 th April 1970
7	Gender	Female
8	Nationality	Indian
9	Objective	To render service in a responsible position suitable to my Qualifications which will utilize & challenge my skills in the field of Electronics & Instrumentation.
10	Educational Qualifications	+ Ph.D. (ELECTRONICS)- (2005) Sardar Patel University. Vallabh Vidyanagar. + M.SC.(ELECTRONICS)- (First Class-69.2%-1991) P.G.Department of Electronics, S.P.University,Vallabh Vidyanagar. + B.Sc.(ELECTRONICS)-(First Class-D -76.4%-1989) V.P& R.P.T.P Science College, S.P.University,Vallabh Vidyanagar.
11	Additional Exams Passed	+ C C C Plus Exam (83 % - 2008) SPIPA, Ahmedabad + Post Graduate Diploma in Value Education and Spirituality (Distance Learning), (First Class-D-86 % - 2011) Annamalai University, Madurai. + Hindi (SL) Exam (85 Marks - 2021) G.S.E.Board, Gandhinagar.

12	Present Designation	Professor & Head, Department of Electronics Sardar Patel University, Vallabh Vidyanagar. 388120 Gujarat, India.
13	Research Area	Thin Films and Nanotechnology, Semiconductor Device Physics, Optoelectronics, Analog and Digital Circuit Design, Gas Sensing, Microcontroller / IoT based Design and Development of instrumentation and control.
14	Title of the Thesis	Studies on Compound Semiconductor (AgGaTe ₂) Thin Film Electronic Devices.
15	Merits / Achievements	<p>During School Career : + Winner of many Prizes and Shields in different competitions like Sports, Cultural, Debate etc., Passed various examinations and participated in different programs like N.C.C., N.S.S. etc.</p> <p>During Graduation Career : + Awarded Smt. Raiba Gokulbhai Patel Prize for securing highest number of marks in T.Y.B.Sc.(Electronics), 1989.</p> <p>During Post Graduation Career : + Awarded Senior Fellowship by Sardar Patel University during M.Sc. (Electronics) study for the academic year 1990-91.</p> <p>During Service Period : + Winner of “Hari Ohm Award” for best Research Paper entitled “Design and Development of a Microprocessor Based Advanced Model for the ON-LINE Condition Monitoring of Oil immersed transformers ” by D.N.Bhatt, P.G.Patel, S.C.Shah, Shahera S.Patel, and B.H. Brahmbhatt" in Computer Science and Computer Engineering subject in Gujarat by “ Hari Ohm Ashram Prerit Shri Bhaikaka Inter University Smarak Trust ” for the Year 1997-1998.</p> <p>+ Winner of “ Sardar Patel Research Award ” for best Research Paper entitled “ Design and Development of Laboratory based Model of Rework System for BGA Semiconductor Devices by Shahera S.Patel in the subject of Basic and Computer Science by Sardar Patel University, Awarded in Annual Convocation Day : 24-1-2018</p> <p>+ First Prize for ORAL Presentation of Research Paper entitled “ Design of Digital Non Contact Thermometer” in the Category of Academia, International Science Symposium organized by Christ College, Rajkot on 23-1-2022.</p>

16	Date of Appointment	<p>+ 3rd September 1991 as a Technical Officer-I in USIC, Sardar Patel University, V.V. Nagar.</p> <p>+ From 1-11-1996 onwards as a Lecturer in USIC.</p> <p>+ From 1-1- 2006 as an Associate Professor at Department of USIC, Sardar Patel University, V.V. Nagar</p> <p>+ Joined Department of Electronics from 24-5-2011.</p> <p>+ From 1-1- 2016 as a Professor, Department of Electronics, Sardar Patel University, V.V. Nagar</p>
17	Research Projects Completed	<p>+ UGC Sponsored Minor Research Project Entitled “Preparation and Characterization of Polycrystalline AgGaTe₂ Thin Films for fabrication of Optoelectronic Devices” started from Feb. 2009 for a period of 2 years.</p> <p>+ Minor Research Project entitled “ Design and Development of a Laboratory Based Model of BGA Rework Station” sanctioned under SEED Money Grant of Sardar Patel University for a period 2012-14.</p> <p>+ Minor Research Project entitled “ Synthesis and Characterization of Nanostructured Ternary (I-III-IV₂) Chalcopyrite Semiconductor for Device Applications” sanctioned under SEED Money Grant of Sardar Patel University for a period 2016-18.</p>
18	Patent	<p>+ BGA(Ball Grid Array)Rework Station Design Registration : Granted Application Number : 290437 Application Date : 30-01-2017 Design Registration Number : 290437 Design Registration Date : 06-09-2019</p> <p>+ Automatic Liquid Dispenser Design Registration : Applied for Application Number : 339805-001 Application Date : 25-03-2021</p> <p>+ Non Contact Thermometer Design Registration : Applied for Application Number : 363785-001 Application Date : 06-05-2022</p> <p>: 3 (See APPENDIX –A)</p>

19	Participation in Refresher, Orientation Courses	<p>+ U.G.C Sponsored Refresher Course in " Computer Science " During 31-05-99 to 19-06-99 held at Department of Computer Science, V.V.Nagar, Gujarat, India.</p> <p>+ U.G.C. Sponsored Refresher Course in " Electronics " during 1-21 Dec., 2000 held at Department of Electronics , V.V. Nagar, Gujarat, India.</p> <p>+ U.G.C. Sponsored Refresher Course in Physics / Electronics from 24-4-2001 to 11-5-2001 Organised by Academic Staff College, Gujarat University, Ahmedabad held at Dept. of Physics, S.P.University,India.</p> <p>+ Orientation Programme Organized by the Academic Staff College, Gujarat University, Ahmedabad under the U.G.C scheme held at M.B.Patel College of Education, S .P.University V.V.Nagar, Gujarat India during 14- 5-2001 to 6-6-2001.</p> <p>+ UGC Sponsored Refresher Course in Physics during 2–21 December 2002 organised by Dept. of Physics, S.P.University.</p>
20	Life Membership	<p>+ Life member of Indian Society for Technical Education (LM /17801)</p> <p>+ Life member of Indian Physics Association (VVN/LM /10803/ USIC)</p> <p>+ Life member of Spiritual Applications Research centre (SpARC wing)</p> <p>+ Life member of Society for Materials Chemistry,India.(Member no.405)</p>
21	Work Experience and Job Description	<p>WORK EXPERIENCE : 31 Years Approx.</p> <p>JOB DESCRIPTION</p> <p>ACADEMIC ACTIVITIES :</p> <p>+ In 1991, University Science Instrumentation Centre (USIC) has started Two Semester-One Year Post B.Sc. Diploma in Instrumentation course. In this course I was engaged with the teaching work, practical and project work of the students and was also busy with the technical activities of the department.</p> <p>+ At present I am working as a Professor and Head at Post Graduate Department of Electronics and teaching in M.Sc. (Electronics) Course.</p>

TEACHING WORK :

+ So far I have taught various papers and got wide experience and deep knowledge through teaching. The subjects I have taught so far are,

(A) Post B.Sc. Diploma in Instrumentation Course :

1. Analog and Digital circuits
2. Vacuum Instruments
3. Analytical Instruments
4. Microprocessor based instrumentation
5. Sensors and transducers
6. Computer Hardware and Maintenance
7. Practicals
8. Project Work

(B) Guided the students of B&B Institute of Technology, V.V.Nagar for their project work as a part of Industrial Training during 2008.

(C) M.Sc.(Instrumentation) (As a Visiting Faculty) :

1. Microprocessor based Instrumentation System Design
2. Programmable Logic Controllers
3. Practical Work
4. Guided for their Project Work

(D) M.Sc.(Applied Physics) (As a Visiting faculty) :

1. Applied Electronics

(E) M.Sc.(Electronics) Course :

1. Thin Film Technology

At present the Theory papers I am Teaching at P. G. Department of Electronics, S.P. University are

1. Semiconductor Science and Devices – Ist Semester
2. Industrial Electronics - Ist Semester
3. Electromagnetism and Antenna Theory – IInd semester
4. Principles of Control System – IIIrd semester
5. Practical Work (2nd Semester)
6. Project Work (3rd Semester)

+ During my tenure at USIC and Department of Electronics, I have developed Different Practical Module Boards and Guided the students for Various Projects as a part of Curriculum.

		<p><u>TECHNICAL ACTIVITIES :</u></p> <p>+ In addition to the academic activities I have also looked after the Repairing and Maintenance work in U.S.I.C (University Science Instrumentation Centre, S. P. University) of Electronics, Analytical, Vacuum & Microprocessor based process control instruments of our University as well as other Academic / Non academic Institutes.</p> <p>Also done Personal Computer Maintenance and Fault Finding. I have attended many such sort of instruments and repaired them successfully.</p>
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22	Additional Academic Activities	<p>+ Research Papers Presented and Published in National and International Conferences / Journals / Seminars / Workshop: : 73 (See APPENDIX –B)</p> <p>+ Worked as a Resource person / Visiting Faculty / Convener/ Co-Ordinator / Programs Conducted : 38 (See APPENDIX –C)</p> <p>+ Reviewer : 8 (See APPENDIX - D)</p> <p>+ Participation in Conferences / Seminar / Summer-Winter School / Symposiums / Workshops :</p> <p>* International / National - Conferences / Workshops / Symposium / Seminars: 57 (See APPENDIX –E)</p> <p>* State / University / College level – Conferences / Workshops / Seminars : 66 (See APPENDIX –F)</p>
23	National Committee Member	<p>+ Organizing Committee member, National workshop on Electronic Devices and Characterization Technique, 2017 organized at Department of Electronics, V.V.Nagar.</p> <p>+ Member, National Organizing Committee, Two day National on</p>

		workshop Hands on Practice with Arduino and Internet of Things(IoT) held at Saurashtra University, Rajkot during 25-26 March 2017
24	Expert Member	Doctoral Research / Selection Committee : + Vivekananda Global University, Jaipur. + Saurashtra University, Rajkot. + Guru Gobind Singh Indraprasth University, New Delhi
25	Ph.D.Thesis Evaluated	4
26	Book Chapter	1 Title : Higher Education in India : A tool of women empowerment and autonomy Title of the Book : Shodhlabdhi , ISBN No.: 978-93-83973-34-7
27	Local Committee Member :	+ College Development Committee (CDC), S.P.University. + Exam Reform Unit, S.P.University. + Convocation Day Committee, S.P.University. + Board of Studies in Science (Electronics), S.P.University. + Advisory Committee Member, Community Science Centre, S.P.University. + Convener, Community Radio Station, S.P.University. + Departmental Academic Integrity Panel, S.P.University. + University Industry Interaction Cell Committee, S.P.University. + Library Committee, S.P.University. + Editorial Board, "PRAJNA", S.P.University. + University level Student Startup and Innovation Policy (SSIP) : Academic Reviewer + Board of Studies in Electronics Science, S.P.University + Executive Committee, SPUTA, S.P.University. + Flying Squad /Observer member, S.P.University. + Convener of Departmental Committees (DRAC, IQAC, Purchase, Women Cell, Anti-Ragging etc)
28	Participation / Volunteer in Extension & Spiritual Activities :	More than 150 (Extended services mostly Before/After Service Hours)
29	Responsibility :	Looked after the regular work of Workshop Superintendent of USIC, S.P.University during Sep-08 to Nov-08.
30	Social Activity :	+ Actively engaged in Social, Spiritual &Academic activities of Prajapita Brahma Kumari Ishwariya Vishwavidyalaya Centre, V.V.Nagar.

		<p>+ Actively engaged in Social, Spiritual & Academic activities of Shree Bochasanwasi Akshar Purushottam Swaminarayan Sanstha, Anand.</p>
31	<p>Development and Fabrication of Modules/Projects and Practical Demonstration Boards</p>	<p>+ Developed the New Practicals, Microprocessor based experiments, Demonstration Projects for Post B.Sc. Diploma in Instrumentation Course.</p> <p>+ Developed and Fabricated “ Microprocessor based On - Off Temperature Controller ” for the project “ Melt Flow Indexer ” of P.G. Dept. of Chemistry, Sardar Patel University, V.V.Nagar From which Chemistry department generated consultancy of more than Rs.1,00,000/-</p> <p>+ Developed and Fabricated “ Microprocessor based Frequency Meter ” for the measurement of LINE frequency.</p> <p>+ Developed & Fabricated Microcontroller based "Light Controller for Fountain ".</p> <p>+ Designed and Developed Instrumentation based Proportional Temperature Controller which is very useful for industrial and Laboratory purpose.</p> <p>+ Designed and Developed “ Laboratory Based Model of BGA Rework Station ”</p> <p>+ Design of an Interfacing Module of Proximity Switch.</p> <p>+ During COVID’19 developed jointly different Hand Sanitizer Modules.</p> <p>+ During COVID’19 developed Multipurpose Digital Non Contact Thermometer. (See APPENDIX –G)</p>

APPENDIX - A

PATENT :

**BGA (Ball Grid Array)
Rework Station
Design Registration : Granted**



**Non Contact Thermometer
Design Registration : Applied**



**Automatic Liquid Dispenser
Design Registration : Applied**



APPENDIX – B

Research Papers Presented and Published in National and International Conferences / Journals / Seminars / Workshop :

1	“Optical Properties of Flash Evaporated AgGaTe₂ Thin Films” by B.H.Patel , Dr. P.G. Patel and Shahera S. Patel , Souvenir of 6 th Annual General Meeting (agm-6) by MRSI held at Kharagpur, India, during 8-10 FEB -'95, P : 23-24.
2	“Effect of Optical Radiation on Polycrystalline AgGaTe₂ Thin Films” by B.H.Patel, Dr. P.G.Patel and Shahera S. Patel , Proceedings of Eighth International Workshop on “Physics of Semiconductor Devices ” held at NPL, New Delhi, India, during 11- 16 DEC '95.(Semiconductor devices. Krishan Lal(Ed) Narosha Publishing House, P : 412-414.
3	“Microprocessor Based Fast and Accurate Line Frequency Meter ” by Shahera S. Patel , D.N . Bhatt , P.G. Patel, S. C . Shah, B. H. Brahmhbhatt, Proceedings of "International Conference on Instrumentation (ICI -96)" held at Bangalore, India, during 8-10 AUG '96.New Age International (P) Limited,Publishers, P : 427-432.
4	“Design, Development, Fabrication and Testing of an accurate Microprocessor based Temperature Indicator- controller model BDPSS2 employing an ON-OFF control & an opto-coupler circuit” by D.N.Bhatt, P.G.Patel, Shahera S. Patel , S.C. Shah and B. H. Brahmhbhatt , Abstract Book INDPRO - 96 held at Baroda, India during (Presented by Co-Author) 4-5 October '96.
5	“Development of a Microprocessor Based Model for the ON–LINE Condition Monitoring of Oil Immersed Transformers ” by D. N. Bhatt, P.G.Patel, Shahera S Patel ,et.al “Power System Management to Overcome Power Shortage in Proceedings of Twelfth National Convention of Electrical Engineers" held at Chandigarh, India during 23-24 NOV' 96, A-79 to A-86.
6	"Flash Evaporated Polycrystalline AgGaTe₂ Thin Film as an Optical Sensor " by Shahera.S. Patel , B. H. Patel, P. G .Patel, Proceeding of 4 th National Seminar on “ Physics and Technology of Sensors” held at Department of Electronics, S.P.University, V.V.Nagar, Gujarat, India during FEB 3-5, 1997, P 5-1 to P 5-6.
7	"Microprocessor Based pH Meter with ON- LINE Temperature compensation” by Shahera S. Patel ,B.H. Brahmhbhatt, S.C.Shah, P.G. Patel Abstract book of “ XII th Gujarat Science Congress " held at V. P. Science College, V.V. Nagar, Gujarat, India during 14 -15 FEB. 1997.
8	“Design and Development of a Microprocessor Based Model for the ON - LINE Condition Monitoring of Oil immersed transformers” by D.N.Bhatt, P.G.Patel, Shahera S.Patel , S.C.Shah and B.H. Brahmhbhatt " Proceedings of the International Conference on Computer Applications in Electrical Engineering – Recent Advances held at Department of Electrical Engineering, University of Roorkee during 8-11 September 1997 P: 583-588.

9	“Design and Development of a Microprocessor Based Advanced Model for the ON-LINE Condition Monitoring of Oil immersed transformers” by D.N.Bhatt, P.G.Patel, Shahera S Patel ,S.C.Shah and B.H.Brahmbhatt" Abstract book : National Symposium on Instrumentation (NSI - 22)" held at National Physical Laboratory (NPL),New Delhi,India during 22 - 25 OCT ' 97.
10	"Design and Development of a Microprocessor Based Very Advanced Model for the ON-LINE Condition Monitoring & Trouble Shooting of Oil-Immersed Transformers" b D. N.Bhatt, Shahera S.Patel , B.H.Brahmbhatt, S.C. Shah & P. G. Patel, Abstract Book of the National Symposium On Instrumentation Held at National Physical Laboratory (NPL),New Delhi, India during 22-25 OCT'97,Journal of the Instrument Society of India, 28 , no-3,1998, P:164-169
11	“Microprocessor Based Advanced pH Meter with ON - LINE Temperature Compensation and PC-Interface by Shahera S. Patel , S. C. Shah, B.H. Brahmbhatt, P.G. Patel - Abstract Book of National Symposium on Instrumentation (NSI – 22) held at National Physical Laboratory (NPL), New Delhi during 22 - 25 OCT' 97, P:91
12	“Electrical Properties of Polycrystalline AgGaTe₂ Thin Films” by B. H. Patel, Shahera S.Patel , Abstract Book of the National Seminar on “Recent Trends In Materials Science "held at Department of Physics, Sri Venkateswara University ,Tirupati, India during 25 -27 November ' 99, P:101.
13	“Microcontroller Based Electronic Controller"for Air Conditioner/Refrigeration System by S. C. Shah, Shahera S. Patel , B. H. Brahmbhatt, Souvenir of the “ National Symposium on Instrumentation (NSI- 24)” held at Goa University, Goa, India during 2-5 February,2000.(Presented by Co-Author)
14	“Low Temperature Resistivity of Polycrystalline AgGaTe₂ Thin Films ” by Dr.B.H.Patel, Shahera S.Patel – Abstract book of “Annual General meeting of Materials Research Society of India " held at Colcatta , India during 31 st Jan.-2 nd Feb, 2001, P : 171.
15	“Optimization On The Growth Condition Of AgGaTe₂ Compound Semiconductor” by Shahera S . Patel , B.H.Patel - U.G.C. Sponsered Seminar on “Condensed Matter Physics : COMPOSE - 2001" held at Dept. of Physics, S.P.University, V.V. nagar, India on 17 th March 2001.
16	“Stoichiometric Dependence of Optical Properties of Flash Evaporated Polycrystalline AgGaTe₂ Thin films by Shahera S. Patel and B.H.Patel, UGC Sponsered seminar On Experimental condensed matter physics held at Department of Physics, S.P.University, V.V.Nagar during 23-3-2002, P : 9
17	“Easy to build a Low Level Electrical Signal Monitoring Circuit Using Photoresistive Sensor” by Shahera S.Patel , B.H.Patel, Journal of Pure & Applied Sciences-‘Prajna’ 12 (2003), P : 51-55.
18	“The influence of deposition parameter on the electrical properties of AgGaTe₂ Thin Films ” by B.H.Patel, Shahera S. Patel ,Abstract book of Seminar on Condensed Matter Physics held at Department of Physics on 21 st February 2004,P : 35.

19	<p>“Design, Development and Testing of an Instrumentation Based Proportional Temperature Controller” by Shahera S.Patel, B.H.Brahmbhatt, Souvenir and Abstract book of 19th Gujarat Science Congress on Recent Advances in Science and Technology held at Department of Physics on 19-2-2005, P:19.</p>
20	<p>“Significance of Substrate Temperature on the Electrical Resistivity and Hall Effect of AgGaTe₂ thin films” by Shahera S.Patel, B.H.Patel, Souvenir and Abstract book of 19th Gujarat Science Congress on Recent Advances in Science and Technology held at Department of Physics on 19-2-2005, P:30.</p>
21	<p>“Growth and Electrical Properties of flash Evaporated AgGaTe₂ Thin Films” by B.H. Patel, Shahera S.Patel, Journal of Crystal Research & Technology, 41, No.2, P:117-122 (2006).</p>
22	<p>“Development of Instrumentation for Low Level Signal Measurement Using AgGaTe₂ Photosensitive Sensor ” by Shahera S. Patel, B. H. Patel, Proceedings of the 11th National Seminar on Physics and Technology of sensors held at University of Pune, Pune during 27-2-2006 to 1-3-2006, P:C35-1 to C35-6.</p>
23	<p>“Growth Optimization of AgGaTe₂ Compound Thin Films” by Dr.Shahera S.Patel, and Dr.B.H.Patel, Journal of Pure and Applied Sciences-”PRAJNA”, 14(2006)P:25-38, Journal of Sardar Patel University, V.V.Nagar.</p>
24	<p>“Fabrication of Al/ p-AgGaTe₂ Schottky Diodes” by S.S.Patel, B.H.Patel and T.S.Patel, Proceedings of International Conference on Advanced Materials and Applications (ICAMA-2007) held at Shivaji University, Kolhapur during 15-17 November 2007, P:273.</p>
25	<p>Fabrication of p-AgGaTe₂/n-ZnSe Photodiode by Shahera S.Patel and B.H.Patel, Journal of Pure and Applied Sciences-”PRAJNA”, 15(2007)P:49-54, Journal of Sardar Patel University, V.V.Nagar.</p>
26	<p>“Characteristics of Al/p-AgGaTe₂ Polycrystalline thin film Schottky barrier diode by S.S.Patel, B.H.Patel and T.S.Patel, Journal of Crystal Research and Technology, 43, No.5, P:542-546(2008)</p>
27	<p>“Structural properties of AgGaTe₂ Thin films and its application as a photodetective Sensor” by Dr.Shahera S.Patel, Dr.B.H.Patel, Mr.Tejas S.Patel Abstract Book of National Conference on Thin film Materials and Devices (NCTMD 08) organized by Department of Physics National Institute of Technology, Karnataka, Surathkal, Shivivasnagar, Karnataka during May 02-03, 2008.</p>
28	<p>Preparation & Photoconducting properties of polycrystalline AgGaTe₂ semiconductor thin films by Dr. Shahera S.Patel, Dr.B.H.Patel & Mr. Tejas S.Patel, Proceeding of the International conference on optics & photonics (ICOP-2009) held at Central Scientific Instruments Organization(CSIO), Chandigarh (A Unit of CSIR, New Delhi), P:220 during October-30 to November 1, 2009, P:220.</p>

29	Development of a “Microcontroller based Temperature and Moisture Measurement System ” by Dr. Shahera S. Patel , Tejas S. Patel, Proceedings of the International Conference on Instrumentation (ICI-2009) and National Symposium on Instrumentation (NSI- 34) organized by Instrument Society of India, IISc – Bangalore and Cummins college of Engineering for Women, Pune, P:95 during 21-23 January 2010,P:96.
30	“Nanostructured ZrO₂ based hydrogen gas sensor operable at room Temperature” by Dr. D.R.Patil, Dr.Shahera S.Patel , Dr.V.M.S.Vernekar, Proceedings of the DAE-BRNS 3 rd International Symposium on Materials Chemistry, Organized by Society for Materials Chemistry and Chemistry Division, BARC, P : 431 during December 7-11 2010. ISBN No.81-88513-40-7
31	“ Determination of Ideality Factor (η) of a Photovoltaic Junction” by Dr. Shahera S. Patel , Mr. Tejas S. Patel, Mr. B. H. Brahmbhatt , Proceedings of the Seventh International conference on Instrumentation (TIMA- 2011) held at CEERI, Chennai, EXCEL INDIA PUBLISHERS, NEW DELHI, P:635-637 during 6-8 January 2011.ISBN-978-93-80697-49-9
32	“Effect of Activators on ZnO Thick film resistors ” by Dr. Shahera S.Patel et.al Abstract Book of the 4 th International Congress on Environmental Research (ICER – 2011) held at SVNIT, SURAT during 15-17 December 2011,P:162.
33	“Nanostructured Pure & Modified ZrO₂ based Gas Sensors” by D.R.Patil, Shahera S.Patel , R.R.Attarde, P.M.Desle, G.B.Shelke, Abstract Book 3 rd National conference on Condensed Matter & Materials Physics (CMMP-2012), Dept.of Physics, S.P. University, V.V.Nagar, 3-5 March 2012.
34	“ Electrical and Optical properties of Nanostructured Polycrystalline AgGaTe₂ Semiconducting Thin Films by Shahera S.Patel , D.R.patil, and T.S.Patel, Abstract Book National Seminar on Nanotechnology : Fundamentals and Applications at Changu kana Thakur Arts, Commerce and Science college, New Panvel, Mumbai during 27-28, April 2012, P:65.(Presented by Co-Author)
35	“ Synthesis, Characterization and Gas Sensing Applications of Nanostructured ZnO by Shahera S. Patel , D.R. Patil, Abstract Book : One day state level seminar on Current Trends in Research and Applications of Physical Sciences in Gujarat (CTRAPSG-12) at Dept. of Physics organized by Dept. of physics & Physics Alumni Association on 29-12-2012.
36	“Nanostructured MnO₂ Thick Film as a Schottky Barrier by D.R.Patil, Shahera S.Patel , R.R.Attarde, G.B.Shelke ,Abstract Book of National conference on Current Research in chemical sciences (CRCS-2013) , Dept. of Chemistry, Shivaji University, Kolhapur, Jan 22-23 2013.
37	“A New Design Approach For The Development Of Low Cost BGA Rework Station” by Dr. Shahera S.Patel Abstract Book of “XXVI Gujarat Science Congress,Charotar

	University of Science and technology, Charusat campus,Changa, Feb.24 2013).
38	“Microcontroller Based Dual Zone Temperature Controller and Indicator for Dry Incubator” by Dr.Shahera S.Patel ,Mr.B.H.Brahmbhatt & Mr.K.B. Brahmbhatt, Abstract Book of DST-PURSE Sponsered National Conference on Interdisciplinary Perspectives: Defence Studies , Earth System Science and Bio Medical Science (IPDED-2013) held at Centre for Interdisciplinary Studies in Science and Technology (CISST), S.P.University, V.V.Nagar during 15-17 NOV 2013.
39	“Development of a Low Cost Microcontroller Based Line Frequency Meter” by Dr.Shahera S.Patel , Mr.B.H.Brahmbhatt & Mr.K.B.Brahmbhatt, Abstract Book of DST-PURSE Sponsered National Conference on Interdisciplinary Perspectives: Defence Studies ,Earth System Science and Bio Medical Science(IPDED-2013)held at Centre for Interdisciplinary Studies in Science and Technology (CISST),S.P.University, V.V.Nagar during 15-17 NOV 2013.
40	“Synthesis,Characterization and Measurement of Electrical and Gas sensing behavior of Nanostructured ZnO by employing Thick Film Technology” by Shahera S.Patel , D.R.Patil, Souvenir of International Conference on Nanoscience and Nanotechnology (ICNN-2013),Babasaheb Bhimrao Ambedkar University, Lucknow Nov.18-20,2013.
41	“A simple and Reliable Improved design of Instrumenation based Temperature controller by Dr.Shahera S.Patel ,Dr.D.R.Patil,B.H.Brahmbhatt,International Journal of Innovative Research and Studies.Vol 2,Issue 12,Dec-2013. ISSN : 2319-9725
42	“Development of Microcontroller Based Low cost pH Meter” Dr.Shahera S.Patel , D.R.Patil and Mr.B.H.Brahmbhatt, National Conference on Materials Science: Trends and Future-2014 (NCMS-2014) held at Department of Physics, Bhartiya Mahavidyalaya, Amravati during 10-11 Jan, 2014, International Journal of Basic and Applied Research (Special Issue),Vol.4,297-300,2014, Published by Society for Educational and Research,Omerga , 413606 (M.S.),India Online ISSN– 2278-0505, Print ISSN -2249-3352
43	“Study of Properties and Gas sensing performance of Nanostructured ZnO films” by Dr.Shahera S.Patel , UGC sponsored one day seminar on Condensed Matter Physics (CMP-2014) organized by Department of Physics, & Physics Alumni Association, S.P.University on 3 rd March 2014.
44	“Design of a low cost temperature controller for high temperature furnaces used In crystal growth” by Shahera S. Patel , D.R.Patil and B. H. Brahmbhatt , National Conference on Recent Innovations in Engineering and Technology (NCRIET-2014)held on 3 rd & 4 th May 2014,published ON-LINE in International Journal of Research in Engineering and Technology (IJRET)- Vol – 03 Special Issue-03:NCRIET–2014, May 2014,P:187-192,eISSN:2319-1163,PISSN:2321-7308
45	Microprocessor based Stepper Motor Control for Homogeneous Growth of Compound Semiconducting Materials by Shahera S.Patel , D.R.Patil, Tejas S. Patel,

	B.H.Brahmbhatt, International Conference on “Advanced Electrical Systems & Applications”(ICAESA-2014) held on 25 th June 2014 at G.Pullaigh College of Engineering and Technology, Kurnool, A.P. , P : 277-282.
46	Particle Size Dependent Gas Sensing Performance of ZnO Thick Film Resistors By Y.B.Patil, S.D.Patil, Shahera S. Patel , B.H.Brahmbhatt & D.R.Patil, Souvenir of the International Conference on “ Nano Science and Engineering Applications- 2014 (ICONSEA-2014) held at Centre for Nano Science and Technology (CNST), Jawaharlal Nehru Technological University, Hyderabad, Andhra Pradesh during 26-28 June, 2014. P:216, ISBN No. 978-81-924726-2-1
47	Stepper Motor Control using Microprocessor for Preparation of Homogeneous Compound Semiconducting Materials by Shahera S.Patel , International Journal of Science and Research (IJSR), Vol.3, Issue 8, August 2014.ISSN (Online): 2319-7064, IF : 3.358
48	Nano Structured Pure and Modified Zinc Oxide Films for Gas Sensor Applications by Shahera S.Patel , D.R.Patil, Abstract Book of National Seminar on Crystallography (NSC 43B) held at Department of Physics, Sardar Patel University, V.V.Nagar during September 1-3, 2014.
49	Advancement in Soldering Technology – Main Issues and its Perspectives-PART 1 by Shahera S.Patel , International Journal of Recent and Innovation Trends in Computing and Communication (IJRITCC), Volume 2, Issue 9, September 2014. ISSN : 2321-8169, GIF: 5.098
50	Advancement in Soldering Technology – Main Issues and its Perspectives- PART 2 by Shahera S.Patel , International Journal of Recent and Innovation Trends in Computing and Communication(IJRITCC),Volume 2, Issue 10, October 2014. ISSN : 2321-8169, GIF: 5.098
51	Advancement in Soldering Technology – Main Issues and its Perspectives- PART 3 by Shahera S.Patel , International Journal of Recent and Innovation Trends in Computing and Communication(IJRITCC),Volume 2, Issue 9, November 2014. ISSN : 2321-8169, GIF: 5.098
52	Synthesis and Processing of ZnO Nano –Sized Particles for Gas Sensing using Ultrasonication by Shahera S.Patel , D.R.Patil, Souvenir, 7 th International congress on Environmental research (ICER-2014) held at R.V.College of Engineering, Bangalore during 26-28, December 2014, Journal of Environmental Research and Development,Vol.9,No.3A,Jan-March 2015, P : 872-877
53	Applications of proximity sensors and its control using microprocessor by Shahera S. Patel , Souvenir of UGC sponsored National Conference on Latest Developments in Basic and Applied Sciences held at M.B.Patel Science College, Anand,Gujarat on 10-1-2015.
54	Design and Development of Ultraviolet Disinfection System for Improvement of Water Quality by Shahera S.Patel Abstract book of XXIX Gujarat Science Congress on “Scoping Future Challenges for Research & Education in Science and Technology” held at Science City, Ahmedabad on 28 Feb.-1 st March 2015.

55	Ultraviolet light for evaluating performance of potable water and waste water by Shahera S.Patel , Proceedings of 3 rd Afro-Asian International Conference on Science, Engineering & Technology (AA-IC-SET 2015), held at Government Engineering College, Bharuch during 27-28 March 2015, International Journal of Futuristic Trends in Engineering and Technology
56	Higher education in India : Pathways towards women's empowerment by Shahera S.Patel,R.L.Patel , National conference on Women in 21 st Century : Concerns & Issues organized by S.N.Patel Institute of Technology & Research Centre, Vidyabharti Campus, Umarakh held on 11 April,2015.
57	Stepper Motor Precise Position Control system using DTMF Technology by Shahera S.Patel , International Journal on Recent and Innovation Trends in Computer and Communication, May 15, Vol.3, Issue 5,2015. ISSN : 2321-8169, SJIF: 5.837
58	Easy Technical Guide to understand PC Motherboard, Troubleshoot Problems and its Repair : PART- I , by Shahera S.Patel International Journal of Advanced Research in Electrical, Electronics and Instrumentation , Vol.4, Issue 7, July 2015, P : 6143-6152, ISSN : 2278-8875, IF : 5.016
59	Particle Size Dependent Gas Sensing Performance of ZnO Nanorods based Thick Film Resistors by Y.B.Patil, Snehal D.Patil, Shahera S. Patel , & D.R.Patil, International Journal on Recent and Innovation Trends in Computing and Communication,Aug 2015,Vol : 3, Issue: 8 P :5063 - 5068 ISSN: 2321-8169
60	Over Voltage Protection Using Crowbar Devices for Low Voltage Loads by Shahera S. Patel , International Journal on Recent and Innovation Trends in Computing and Communication, Dec 2015,Vol : 3, Issue: 12 P : 6703 – 6705, ISSN: 2321-8169.
61	Addressing Overvoltage Protection for High Voltage Loads by Shahera S. Patel , International Journal on Recent and Innovation Trends in Computing and Communication, March 2016,Vol : 4, Issue: 3 P : 496 –501, ISSN: 2321-8169
62	Easy Technical Guide to Understand PC Motherboard, Troubleshoot Problems and Its Repair: PART – II by Shahera S. Patel , International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Dec 2016, Vol : 5, Issue: 12, P:9092-9097, ISSN:2320-3765
63	Determination of Mechanical Depression using Semiconductor Strain Gauge for Industrial and Engineering Applications by Shahera S. Patel , International Journal of Electronics, Electrical and Computational System (IJEECS), Dec 2016, Vol : 5, Issue: 12, P: 51-57, ISSN :2348-117X.
64	Determination of Terminal Velocity to Test Purity of Milk by Shahera S. Patel , International Journal on Recent and Innovation Trends in Computing and Communication , Dec 16, Vol : 4, Issue: 12, P: 277 – 279, ISSN: 2321-8169.
65	Design and Development of Laboratory based model of rework system for BGA semiconductor devices by Shahera S. Patel , Journal of Pure and Applied Sciences-“PRAJNA”, Dec 2017, Vol : 24, Issue: 25, P: 195-201, ISSN :0975 2595.

66	Easy Technical guide to understand PC motherboard, troubleshoot problems and its repair- Part III by Shahera S. Patel , International Journal on future revolution in computer science & communication engineering (IJFRCSCE), 2017, Vol : 3, Issue: 12, P: 278-280. ISSN :2454-4248
67	Ternary Compound Semiconductors : Prospectus and Challenges for fabrication of Devices , by Shahera S. Patel Poster Presentation, National Conference on Recent Trends in Material Science and Technology (RTMST-2017) organized by Smt. P.K. Kotecha Mahila Mahavidyalaya, Bhusawal on 4-2-2017
68	Characterization of Flash Evaporated Polycrystalline Nanostructured AgGaTe₂Films , by Shahera S. Patel Poster Presentation, National Conference on Recent Trends in Material Science and Technology (RTMST-2017) organized by Smt. P.K. Kotecha Mahila Mahavidyalaya, Bhusawal on 4-2-2017
69	Design and modeling of a Magnetic levitation system by Shahera S. Patel , Journal of Emerging technologies & Innovative Research (JETIR), Dec 2017, Vol : 4, Issue: 12, P: 118-121, ISSN :2349-5162.
70	Measurement of Static Errors for ADCs , by Shahera S. Patel Presented in State Level Science Meet Organised by GSA(V.V.Nagar Chapter) , Shri.A.N.Patel P.G. Institute of Science and Research & C.C.Patel Community Centre,V.V.Nagar on 6-1-2019
71	Higher Education in India : A tool of Women Empowerment and Autonomy , by Shahera S.Patel Book Chapter, Shodhlabdhi, S.P.University. ISBN : 978-93-83973-34-7, 2022 (Yet To Be Published)
72	Design of Digital Noncontact Thermometer by Shahera S.Patel , Science Symposium on Recent Trends in Science and Technology (Oral Presentation - ONLINE) organized by Christ College, Rajkot during 22-23 January 2022.
73	Intelligent attendance Monitoring System using RFID by Yatrik S.Patel (Presented the paper), Shahera S.Patel , Proceedings of Science Symposium on Recent Trends in Science and Technology (Oral Presentation - ONLINE) organized by Christ College, Rajkot during 22-23 January 2022.(Accepted)

APPENDIX – C

Worked as a Resource person / Visiting Faculty /Convener/ Co-Ordinator

1	Resource Person in the Training Programme on “Microprocessor based Instrumentation” held at U.S.I.C, S.P.University, V.V.Nagar, Gujarat, India during 12 -22 DEC '94
2	Resource Person in the Training Programme on "Analytical Instruments" which was organized jointly by U.S.I.C., S.P University, V.V.Nagar and Gujarat Vidyapith, Ahmedabad, Gujarat during SEP '96.
3	Resource Person in the Short term Course on "Computer Maintenance and Networking " which was organized jointly by U.S.I.C., S.P University, V.V.Nagar and WRIC, Mumbai held at USIC, S.P.University. V.V.Nagar during 24–29 Jan' 2000.
4	Resource Person in the U.G.C. Sponsered Refresher Course in "Electronics" held at Department of Electronics, S.P. University, V.V.Nagar,India during 1-21 Dec.2000.
5	Resource person in the short term course on “Sensors & Transducers” jointly organized by USIC, S.P.University & WRIC, Mumbai held at USIC, S.P.University. V.V.Nagar during 4–9 Feb' 02.
6	Visiting Faculty at ISTAR in M.Sc. (Instrumentation) course and taught paper on Programmable Logic Controller during June to November 2003.
7	Visiting Faculty at ISTAR in M.Sc. (Instrumentation) course and taught the paper on Microprocessor based Instrumentation and System Design from July to December 2004.
8	Worked as a Visiting Faculty at ISTAR in M.Sc.(Instrumentation) course & Taught Paper on Microprocessor based Instrumentation & System Design during Jun. to Nov. 2006
9	Visiting Faculty at ISTAR in M.Sc.(Instrumentation) course and Taught Paper on Microprocessor based Instrumentation and System Design during June to Nov. 2007
10	Visiting Faculty at USIC and taught paper on Vacuum Instruments (Half Paper) during the Academic term June-November 2011
11	Resource Person at National conference on Current Research in chemical sciences (CRCS-2013) ,Dept.of Chemistry, Shivaji University, Kolhapur, Jan 22-23 2013.
12	Delivered a talk on Thrust areas in Electronics and was Special Invitee for celebration of Electronics day at Shri P.M.Patel College of Electronics and Communications, Anand, Gujarat on 8-2-2013
13	Judge to access the posters for poster competitions at National conference on Current Research in chemical sciences (CRCS-2013), Dept. of Chemistry, Shivaji University, Kolhapur, Jan 22-23 2013.
14	Co ordinated one parallel session & Delivered a talk on Design and Development of a BGA Rework station at International conference on Nanoscience and Nanotechnology (ICNN-2013), Babasaheb Bhimrao Ambedkar University, Lucknow During Nov.18-20 2013.
15	Co-ordinator (Technology Session), Scientific Committee on 21-12-2013, 6 th International congress on Environmental research (ICER-2013), Maulana Azad College of Arts, Science & Commerce, Aurangabad, held during 19-21, Dec. 2013.

16	Judge to access the posters for poster competitions at National Conference on Materials Science : Trends & Future-2014 held at Dept. of Physics, Bhartiya Mahavidyalaya, Amravati during 10-11, Jan-2014
17	Co-chair person (Physical Science), Scientific Committee on 28-12-2014, 7 th International Congress on Environmental Research (ICER -2014), held at R. V. College of Engineering , Bangalore during 26-28, Dec. 2014
18	Judge in Inter Collegiate H.M.Patel Memorial Debate Competition organized by Department of Economics, S.P.University on 11-8-2016.
19	Expert session in Life Skill Education Camp organized by Ministry of Youth Affairs and Sports(GOI), New Delhi & Youth Wing RE & RF,Brahmakumaries,Mount Abu at Brahmakumaries,V.V.Nagar on 9 Sep. 2016
20	Member,Local Organizing Committee,National workshop on electronic Devices and their Characterization Techniques (NWEDCT-2017) held at Department of Electronics,S.P.University.
21	Invited Speaker and Member,National Organizing Committee, National Conference on Recent Trends in Material Science and Technology (RTMST-2017) organized by Smt. P.K. Kotecha Mahila Mahavidyalaya, Bhusawal on 4-2-2017
22	Judge for Poster and Working Model Presentation Competition in Inter School Little Scholar's Science Conference organized by Shristi Education Trust School , Lambhavel on 23-2-2017
23	Delivered Invited Guest Lectures for B.Sc (Electronics) students on Microprocessor and its Applications on 20 & 22 Feb 2018, V.P. & R.P.T.P Science college, V.V.Nagar.
24	Organized and delivered lectures in course on Repair and Maintenance of Home Appliances at USIC, S.P.University during Jan-March 2019.
25	Jury Member,International hackathonlead by NASA-USA for Local lead hosted and sponsored by C.V.M., V.V.Nagar during 2-4 October 2020
26	Delivered lectures and given Hands on practical training on Understanding Home Appliances for M.Sc.(Applied Physics) Students at IICISST, S.P.University during Jan-March 2021
27	Delivered a Talk on "Sanskrutini Sanrakshak Nari" at Community Radio Station, S.P.University,V.V.Nagar on 8-3-2021
28	Conducted Program on " Nari Ambe Aabh Atari" as a part of International Women's day celebration at Department of Electronics, S.P.University on 5 -3-2021
29	Convener, Workshop on PLC Programming and its Industrial Applications organized by Dept Electronics, Sardar Patel University, V. V. Nagar on 12-03-2021 & 13-03-2021
30	Conducted Program on "Confidance is Courage & Human Values " at Department of Electronics, S.P.University on 15,16 March2021
31	Session Chair and Judge at International Conference on Innovations in Multidisciplinary Research organized (ONLINE) by IConference, New Delhi during 23-24 August 2021.
32	Resource Person in Refresher course in Computer Science, IT and Applied Electronics organized by HRDC, Nagpur on 21-9-2021 (ON-LINE). Title of the talk : Digital Electronic Circuits and Computer Architecture
33	JUDGE (Jury Member) for NASA Space APP Challenge Organised by NASA GO Team and C.V.M. during 2-3-October 2021

33	Conducted Program on Journey for Peace at Department of Electronics, S.P.University on 11-12-2021
34	Coordinator and Resource Person in Skill development Course on “ Understanding and Maintanance of Home Appliances ” organized at Department of Electronics during 21-12-2021 to 14-2-2022 (Conducted 20 Lectures and Practical Sessions).
35	Judge for Elocution Competition held on 4-3-2022, Science Week organized by Physical Society and Physics Alumni Association as a part of Azadi Ka Amrit mahotsav Celebration. Theme of the Program: Builders of Modern India : Role of Indian Scientists during Pre- and Post- Independence Era.
36	Convener, An Engagement Program with Industry : To bridge the gap between academia and Industry. “Implementing FPGAs Based Digital Systems - An Introduction” Organized During 5, 6, 12 March 2022
37	Conducted Program on “ Ek Garima Narini ” as a part of Women’s day celebration at Department of Electronics,S.P.University on 8 -3-2022
38	Worked as a Resource person in Skill development course supported by FICCI & Tourism Section Government of Gujarat at Shree Sahajanand College of Science, Hasalpur-Sokli on 2-4-2022

APPENDIX – D

Reviewed Manuscripts for following Journals

1	Sensors and Actuators : B Chemical.
2	International Journal of Modern Engineering.
3	Technology Interface International Journal.
4	Materials Science in Semiconductor Processing.
5	International Journal of Scientific and Engineering Research.(IJSER)
6	Reviewed 10 manuscripts of papers for International Conference on Nanoscience & Nanotechnology (ICNN-2013) published in Advanced Science Letters.
7	IAJC/ISAM conference papers Published in IJME/TIJJ
8	Reviewer (Academic Expert) of proposals submitted to University level Student Startup and Innovation Policy (SSIP).

APPENDIX – E

**National / Conferences /International Seminars /Seminars/Workshops/Symposiums:
ATTENDED**

1	ISTE Summer School on “Microprocessor and their Industrial Applications” at Anna University, Madras ,India during 13-26,JUNE-'93.
2	Workshop on “Vacuum Science and Technology” during 22-24 AUG-'94 at Indian Institute of Science, Bangalore which was organized by Indian Vacuum Society in Collaboration with Indian Institute of Science, Bangalore and Hind High Vacuum Company, Bangalore, India.
3	Eighth International Workshop on “Physics of Semiconductor Devices” during 11-16 DEC-'95 held at National Physical Laboratory New Delhi, India.
4	Regional Workshop on “Low Dimensional Semiconductor Structures” during 8 - 20 DEC' 95 held at Dept. of Electronics Science University of Delhi, South campus, New Delhi
5	International Conference on “Instrumentation (ICI-96)” during 8-10 AUG'96 held at Indian Institute of science , Bangalore, India.
6	Short term course on “Optical Thin Films and Applications” during 11-14 AUG -'96 held at Indian Institute of Science, Bangalore , India.
7	International Conference on “Computer Applications in Electrical Engineering – Recent Advances” during 8-11 SEP '97 held at University Of Roorkee , Roorkee.
8	National Symposium on “Instrumentation (NSI –22)” during 22–25 OCT '1997 held at National Physical Laboratory, New Delhi, India.
9	National Seminar on "Recent Trends in Materials Science" at Tirupati organized by Dept. of Physics, Sri Venkateswara University, Tirupati during Nov.25-27,1999.
10	National Level Technical Symposium on “Instrumentation and Control” (INSTCON -2007) held at D.D.I.T, Nadiad, Organized by Department of Instrumentation and Control Engineering, Faculty of Technology, Dharmsinh Desai University, Nadiad, Gujarat during 29-30 th September 2007.
11	International conference on Advanced Materials and Applications- (ICAMA- 2007) at Shivaji University, Kolhapur organized by Department of Physics, Shivaji University, Kolhapur during 15-17 November, 2007
12	International conference on “Optics and Photonics” at CSIO Chandigarh, organized By Central Scientific Instruments Organization (CSIO) during October 30-Nov 1, 2009
13	National Seminar on Appropriate Technology at Ahmedabad during 18-20 Nov '09.
14	International Conference on Instrumentation (ICI-2009) and National Symposium on Instrumentation (NSI – 34) organized by Instrument Society of India, IISc – Bangalore and Cummins college of Engineering for Women, at Pune during 21-23 Jan.2010
15	International Symposium on Materials Chemistry, Organized by Society for Materials Chemistry and Chemistry Division, BARC, during 7 - 11 December '10.

16	International conference on Instrumentation (TIMA- 2011), Jointly Organized by CEERI, Chennai and Instrument Society Of India held at CEERI, Chennai, during 6-8 Jan. 2011.
17	4 th International Congress (ICER-2011), jointly organized by JERAD and Gujarat Pollution Control Board at SVNIT, SURAT during 15-17 December 2011.
18	Third National conference on Condensed Matter & Materials Physics (CMMP-2012) Dept.of Physics, S.P.University, V.V.Nagar during 3-5 March 2012
19	National conference on Current Research in chemical sciences (CRCS-2013) Dept. of Chemistry, Shivaji University, Kolhapur, Jan 22-23 2013.
20	DST-PURSE sponsored National conference on Interdisciplinary Perspectives : Defence Studies, Earth System Science & Bio-Medical Science (IPDEB-2013),CISST ,S.P. University, V.V.Nagar during 15-17 Nov,2013.
21	International conference on Nanoscience and Nanotechnology (ICNN-2013), Babasaheb Bhimrao Ambedkar University, Lucknow during Nov.18-20 2013
22	6 th International congress on Environmental research (ICER-2013), Maulana Azad College of Arts, Science & Commerce, Aurangabad, held during 19-21, Dec. 2013
23	National conference on Materials Science : Trends & Future, Bhartiya Mahavidyalaya, Department of Physics, Amravati held during 10-11 Jan. 2014.
24	National conference on Recent Innovations in Engineering and Technology (NCRIET- 2014),Bheemanna Khandre Institute of Technology, Bhalki, Bidar, Karnataka during 3-4 May 2014.
25	International Conference on “Advanced Electrical Systems & Applications” (ICAESA-2014) held on 25 th June 2014 at G.Pullaiigh College of Engineering and Technology, Kurnool, A.P.
26	International Conference on “ Nano Science and Engineering Applications - 2014 (ICONSEA-2014)” held at Centre for Nano Science and Technology (CNST), Jawaharlal Nehru Technological University, Hyderabad, Andhra Pradesh during 26-28 June,2014.
27	National Seminar on Crystallography (NSC 43B) held at Department of Physics, Sardar Patel University, V.V.Nagar during September 1-3, 2014.
28	7 th International congress on Environmental research (ICER-2014) held at R.V.College of Engineering, Bangalore held during 26-28, December 2014.
29	UGC sponsored National Conference on Latest developments in Basic and Applied Sciences held at M.B.Patel Science College, Anand on 10-1-2015.
30	3 rd Afro-Asian International Conference on Science, Engineering & Technology (AA-IC-SET 2015)held at Government Engineering College,Bharuch during 27-28March 2015.
31	UGC sponsored National level Interdisciplinary research scholars meet-2016 (IRSM-2016) organized by Center for Interdisciplinary Service in Science and Technology (CISST), S.P. University on 3 & 4 March 2016.
32	8 th International Conference on Innovative Research in Engineering Science and Management (ICIRESM-16) organized by Conference info and Academic Science at IETE, New Delhi on 18-12-2016

33	National Conference on Recent Trends in Material Science and Technology (RTMST-2017) organized by Smt. P.K. Kotecha Mahila Mahavidyalaya, Bhusawal on 4-2-2017
34	UGC Sponsored National Workshop on Characterization Techniques for Materials (NWCTM-2017) organized by Department of Material Science, S.P.University, V.V.Nagar on 6&7 March 2017
35	National workshop on Electronic Devices and Characterization Techniques (NWEDCT-2017) organized by Department of Electronics, S.P.University, V.V.Nagar on 14-3-2017
36	National Workshop on Analytical Techniques for Material Characterization (NWATMC-2017) organized by Department of Physics, S.P.University, V.V.Nagar on 20 March 2017 (National Level)
37	National Workshop on Emerging Trends in Electromagnetic and its Applications organized by B.V.M Engineering College, V.V.Nagar on 29 to 31 March 2017 (National Level)
38	National workshop on Analytical techniques for material characterization (NWATMC) organized by Department of Physics, Sardar Patel University, V.V.Nagar on 20-3-2017
39	International Conference on Recent Innovation in Science and Workshop on Spectroscopy and its Perspectives organized by Physics Department, Municipal Arts and Urban Science College, Mehsana on September 15-16, 2017
40	Assimilation of Knowledge on Recent Advances in Nanomaterial during COVID-19 organized by Department of Physics, Smt Radhabai Sarda Arts, Commerce & Science College, Amravati (ON-LINE) on 16 -6-2020
41	Webinar on “Building Innovation & Startup Ecosystem in South Gujarat ” organized by Startup Sathi Webinar Series i-Hub, Gujarat (ON-LINE) on 23-6-2020.
42	Webinar on Essential education for Accelerating creative career organized by Elets Techno media and digital learning magazine (ON-LINE) on 6-08-2020
43	Training workshop on High performance computing organized by Sardar Patel University, V. V. Nagar (OFF-LINE) on 16-10-2020
44	National level webinar on Recent Advances in Nanomaterials-2020 organized by Department of Physics, Arts, Science and Commerce college, Chikhaldara, Dist : Amravati (ON-LINE) on 5-12-2020
45	Online Webinar on Artificial Intelligence organized by UGC-Human Resource Development Centre, Gujarat University, Ahmadabad (ON-LINE) on 15-02-2021
46	National Webinar on “Teachers’ Role in NEP Implementation” organized by IQAC, SPU, Niti Aayog, New Delhi and Bharatiya Shikshan Mandal, Nagpur (Online) on 17-2-2021
47	Workshop on PLC Programming and its Industrial Applications organized by Department of Electronics, Sardar Patel University, V. V. Nagar on 12-03-2021 & 13-03-2021
48	National webinar on Geoinformatics Technology & Career Opportunities organized by Department of Geology, Rani Laxmibai Mahavidyalaya, Parola in collaboration with Netra Institute of Geoinformatics management & Technologies Foundation, Dwarka, New Delhi on 4-8-2021

49	International webinar on Entrepreneurship Development Orientation & Digital Transformation organized by NFED Business Facilitators Forum, Coimbatore, Talouns Pvt.Ltd.,Singapore, LTT Global Communications, Malasia and MIT Square, United Kingdom on 6-7 August 2021
50	Online Webinar on what jobs are IN for 2030 organized by Educare Taiwan , Taiwan on 5-9-2021
51	International Science Symposium on Recent Trends in Science and Technology organized by Christ College, Rajkot during 22-23 January 2022
52	Online Webinar on ,Taiwan : A promising Study Destination for Indian Students organized by Educare Taiwan , Taiwan on 23-1-2022
53	UGC Sponsered National Webinar on Forensic Accounting : The Emerging Discipline organized by HRDC, S.P.University on 31-1-2022
54	International Webinar on Intelligent Optimization Techniques and their Real Life Applications organized by Punjabi University, Patiyala during 25-27 February 2022
55	National Online STTP/Refresher Program on “Project Based Learning” organized by Department of E&TC, AISSMS COE Pune with Bos(E&TC)SPPU & ISTE New Delhi during 21-26 /2/2022
56	International Women’s Day Celebration on theme : Phenomenal Women – A Tribute to Womanhood organized by CWDC , Faculty of Commerce , GLS University & Women’s Indian Chamber of Commerce and Industry(WICCI) during March 2022.
57	International webinar on Promising career : Reliability Science & Technology organized by Educare Taiwan with Chinese Culture University& Chang Gung University on 6-3-22

APPENDIX – F

State / University / College level Seminars / Workshops / Summer School/Orientation Program/ Webinars :

ATTENDED

1	The theory and practical classes of “Microprocessor Based system” at B.V.M. College, V. V. Nagar, India during the year 1991-1992.
2	Seminar on “ Materials research and industries ” during DEC-'92 which was organised by Material Research Society of India (Gujarat Chapter) at Sardar Patel University V.V. Nagar, Gujarat.
3	“Computer Orientation Course” during 14-30 DEC -'92 which was conducted by G.H. Patel Computer Centre, S.P. University, V.V. Nagar, Gujarat, India.
4	Summer School on “ Microprocessor ” at V.V. Nagar during MAY-'93 which was conducted by P. G. Department of Electronics and taught practicals on Microprocessor to the senior teachers of V. P. Science College, V. V. Nagar and M.B. Patel Science College, Anand
5	Seminar on " Institutional Management " at Department of Materials Science, S. P. University, V.V. Nagar, India which was sponsored by ISTE, Gujarat section during MARCH ' 94.
6	Inter Disciplinary seminar on “ Exploring R & D potentials between Universities and Industries ” during 11 - 12 APRIL '94 which was organized by Department of Electronics, Sardar Patel University, Vallabh Vidyanagar, Gujarat, India.
7	Seminar on “Institutional Management” at B.V.M College, Vallabh Vidyanagar, Gujarat, India during 12 - 13 MAY, 1994 which was organized by ISTE Gujarat section and ISTE Chapter
8	ISTE Summer school on “Fibre Optics and its Application” during 30-5-94 to 11-6-94 at B.V.M Engg. College which was organized jointly by B.V.M Engg. College and P. G. Department of Electronics, Sardar Patel University, V.V. Nagar, Gujarat, India.
9	4 th National Seminar on "Physics & Technology of Sensors" during 3-5 FEB.96 held at Department of Electronics, Sardar Patel University, V. V. Nagar, Gujarat, India.
10	" Workshop on “ Electron Microscopy ” at V.V. Nagar, India organised by Dept. of Bi University and SICART- Charutar Vidyamandal during 13 – 18 December 1999.
11	Short term Course on " Computer Maintenance and Networking " at V.V. Nagar Jointly organised by U .S. I. C., S. P. University and WRIC – Mumbai during 24-29 January, 2000.
12	U.G.C. Sponsored Seminar on Condensed Matter Physics (COMPOSE -2001) held at Department of Physics S.P. University, V.V. Nagar, India on 17 th March, 2001
13	U.G.C. User Workshop on " Engineering of Oxide Materials by Swift Heavy Ions " held at Dept. of Physics, Saurashtra University, Rajkot, during 10-11 th April, 2001
14	One day Workshop on " Microcontroller and Pc applications to Instrumentation

	and Control " on Wednesday, 25 th April, 2001 Organized by Electrical engineering Department, B.V.M. College, V.V.Nagar.
15	Given a Seminar on " Real Time Instrumentation Applications " In U.G.C. Sponsored Refresher Course in Physics / Electronics on 10-5-'01 held at Dept. of Physics, S. P. University, V.V.Nagar, India during 24-4-2001 to 11-5 -2001.
16	Obtained 2 nd Position in Satsang Siksas Examination "Satsang Prarambh" Organised by Bochasanwasi Shree Akshar Purasottam Sanstha held at Anand in 2001.
17	One day Seminar on "Current Trends in Instrumentation" held on 27-1-02 at V.V.Nagar organized by N.V.Patel college of Pure and Applied Sciences.
18	Short term course on " Sensors & Transducers" jointly organized by USIC, S.P. University & WRIC, Mumbai held at USIC, S. P. University. V.V. Nagar during 4-9 Feb' 02.
19	One day seminar on " Experimental Condensed Matter Physics" held on 23-3-02 at V.V.Nagar organized by Dept. of Physics, S.P.University.
20	UGC sponsored seminar on Experimental Condensed Matter Physics held on 23 rd March 2002 at Department of Physics, Sardar Patel University, V.V.Nagar.
21	"Patent Awareness workshop for Academia and Industries held on 9 th April 2003 at S.P.University, V.V.Nagar organized by Gujcost (Gujarat Council on Science & Technology) and S.P.University under University- Industry Interaction Cell.
22	Seminar on Condensed Matter Physics under the aegis of DRS/SAP programme held on 21 st February 2004 at Department of Physics organized by Department of Physics, S.P.University, V.V.Nagar.
23	Workshop on e-content development for e-learning held on 4 th November 2004 at P.G.Department of Computer Science organised by P.G.Department of Computer Science and Technology, V.V.Nagar.
24	XIX th Gujarat Science Congress on Recent Advances in Science and Technology held on 26 th February 2005 at Department of Physics, V.V.Nagar organized jointly by S.P.University and Gujarat Science Academy, Local Chapter-Vallabh Vidyanagar.
25	Workshop on Space and GIS Technology Applications held on 26 th February 2005 at Physics department, V.V.Nagar organized jointly by Physics Department, V.V.Nagar and Indian Society of Geomatics, Ahmedabad Chapter.
26	Seminar on "Exploring current trends in the development of Science" held on 29 th January 2006 at Department of Physics, V.V.Nagar organized by Gujarat Science Academy, V.V.Nagar chapter.
27	One day IUAC Acquaintance programme on 24 th February, 2006 held at Department of Physics, V.V.Nagar Jointly organized by Inter University Accelerator Centre, New Delhi and IPA, V.V. Nagar chapter.
28	Introductory seminar on " Astronomy Astrophysics & Space Sciences " held during

	July 10-15 ,2006 at Department of Physics, Sardar Patel University, V.V.Nagar.
29	Seminar on “Problems & Prospects of the Present Examination System” Organized by Examination Reforms Unit of Sardar Patel University ’ on 8-2-2007
30	The 12 th ISTE Gujarat State Convention and One day symposium “Excellence Technical Education through Innovation “ held at B. V. M. college, jointly organized by I S T E Gujarat Section and Birla Vishvakarma Mahavidyalaya (Engineering college) on 20-10 2007.
31	III rd GSA – V V N CSC Annual Science Meet ”Sci-Meet 2008” at Department Physics Organized by Department of Physics, Sardar Patel University, Vallabh Vidyanagar on February 17,2008.
32	One day seminar on Astronomy, Astrophysics and space science at Department of Physics Organized by Department of Physics & C C Patel Community Science Centre,Vallabh Vidyanagar on December 22,2008
33	Golden Jubilee Seminar in Physics at Department of Physics organized by Physical Society and Physics Alumni Association, Department of Physics, Sardar Patel University, Vallabh Vidyanagar on January 20, 2009.
34	Women’s Day celebration organized by women’s cell and Women’s studies Centre at S.P.University on 16-03-2009.
35	One Day State Level Seminar on CANBUS & CAN TECHNOLOGY organized by USIC, S.P.University,V.V.Nagar and CAN Unit, Mumbai at USIC on 18 Jan.2010.
36	One day seminar on Education through Information and Communication Technology (ICT) organized by S.P.University and Knowledge Consortium Unit (KCG),Gandhinagar at M.P.Patel auditorium on 21 st August 2010.
37	A state level seminar on Condensed Matter Physics with Nano Science flavor (SCMP-2011) organized by Physics Alumni Association and C.C.Patel Community Science Center, S.P.University on February 04,2011.
38	Seminar on Frontiers in Instrumentation held at Institute of Science & Technology for Advanced Studies &Research (ISTAR), V.V.Nagar on 18-2-2012
39	One day Seminar on Peace for Women in Society Organized by Women’s cell at S.P. University on 28-8-12.
40	Current Trends in Research and Applications of Physical Sciences in Gujarat, (CTRAPSG-12) Department of Physics,S.P.University on 29-12-2012.
41	XXVI Gujarat Science Congress, Charotar University of Science and technology, Charusat Campus, Changa, Feb.24 2013
42	Orientation programme for university teachers organized by Internal Quality Assurance Cell, S.P.University on 26-2-2013
43	One day Seminar on Peace for Woman in Society, Sardar Patel University, V.V.Nagar on 28-8- 13
44	Workshop on “Roles and Responsibilities of Personnel associated with examination” organized by exam reform Unit and S.P.University on 14 th October 2013 at

	S.P.University, V.V.Nagar
45	UGC sponsored one day seminar on Condensed Matter Physics (CMP-2014) organized by Department of Physics, & Physics Alumni Association, S.P.University on 3 rd March 2014.
46	A state level conference on “ Frontiers in Instrumentation ” held at Department of Instrumentation, ISTAR, V.V.Nagar on 11 th October 2014.
47	XXIX Gujarat Science Congress on “ Scoping Future Challenges for Research & Education in Science and Technology ” Jointly organized by Gujarat Science Academy and Gujarat Science City, Ahmedabad held at Science City, Ahmedabad during 28 Feb.-1 st March 2015.
48	TEQIP-II sponsored two days workshop on Embedded System Design using TI MSP 430 microcontroller development tools organized by Computer Department, B.V.M. Engineering College, V.V.Nagar & Starcom during 30-31 March 2015.
49	Awareness Program on Intellectual Property Rights (IPR) organized by Research and Consultancy Cell, M.S.University, Baroda on 19-09-2015 (Local Level)
50	GSA-VVN Science Meet 2018 organized by Guj Sci. Academy- VVN Chapter and V.P & R.P.T.P Science College, V.V.Nagar and C.C.Patel Community Science Centre (SPU), V.V.Nagar on 21 st January 2018
51	Participated in 3 rd Faculty Development Programme (under RUSA through KCG) Motivation for Quality and Impactful Research(Science) organized by Human Resource Development Center,S.P.University, V.V.nagar on 3-7 december 2018.
52	Attended Science Meet -2019 organized jointly by GSA(VVN chapter) Shri Alpesh N Patel PG Institute of Science and Research anand and C.C.Patel community center on 6 th Jan 2019.
53	Attended state level seminar on Frontier in Instrumentation (FI-2019) organized by ISTAR & Instrumentation (VOC) department, V.P. & R.P.T.P Science College, V.V.Nagar on 2 nd Feb 2019.
54	Attended seminar on Recent advances in interdisciplinary Science and Technology (RAIST-2019) organized by IICISST,S.P.University, V.V.Nagar on 2 ^{1st} Feb 2019.
55	Attended interaction meeting with NAAC peer team at V.P. & R.P.T.P Science College, V.V.Nagar on 18 th March 2019.
56	Faculty development programme on Evolution from offline to online Teaching organized by Satish Pradhan Dnyanasadhana college,Thane(ON-LINE) on 30 May 2020 to 3-06-2020
57	Webinar on Higher & Technical education conclave organized by North India Elets Technomedia and digital learning magazine (ON-LINE) on 24-07-2020.
58	Webinar on Idea to Invention : Thinking out of the Box organized by Gujarat Council on Science and Technology, Government of Gujarat (ON-LINE) on 17-10-2020
59	Online Webinar on Leadership organized by UGC-Human Resource Development Centre, Gujarat University, Ahmedabad (ON-LINE) on 17-02-2021
60	Online Webinar on Ethics & Research organized by UGC-Human Resource Development Centre, Gujarat University, Ahmedabad (ON-LINE) on 24-02-2021
61	Online Webinar on Education & MOOCs organized by UGC-Human Resource Development Centre, Gujarat University, Ahmedabad (ON-LINE) on 26-02-2021

62	Seminar on Paradigms and Opportunities for Cross Disciplinary Research in Science and Social Sciences with a focus on National Development (OFF-LINE) on 6-3-2021
63	Training workshop on High performance computing organized by Sardar Patel University, V. V. Nagar on 16-10-2020
64	Webinar on Green University Campus, Organised by S.P.university on 5-6-2021
65	Webinar on SOP for SSR preparation for Accreditation Organised by S.P.university on 29-6-2021
66	Programme on YOG Samvad organized jointly by S.P.University, Gujarat Rajya Yog Board and Brahmakumaris , V.V.nagar on 10-10-2021

APPENDIX -G

Development and Fabrication of Modules / Projects and Practical Demonstration Boards :

