BIO-DATA

1. Name: Dr. Sanjaykumar Rameshbhai Patel

2. Date of Birth: 17th March, 1979

3. Designation: Associate Professor

4. Highest Qualifications: Ph.D.

5. Degree Obtained

University	Degree	Year	Field of Specialization
SVNIT, Surat	Ph.D.	2011	Chemical Engineering
M.S.University, Baroda	M.E.	2005	Chemical Engineering (Polymer Technology)
S.G.University, Surat (SVRCET-Surat)	B.E.	2001	Chemical Engineering

6. Employment Record

Institute	Designation	Period
SVNIT, Surat	Associate Professor	Since 28-01-2019 to till date
SVNIT, Surat	Assistant Professor	10-11-2006 to 27-01-2019
SVNIT, Surat	Teaching Assistant	9 months

7. Other Related Experience (Research)

University	Designation	Period
SVNIT, Surat	Research Fellow	6 months

8. Consultancy and Sponsored research activities: (4 Research Projects)

Sr. No.	Degree Registered/Project Undertaken	Duration(date)		University/ Sponsoring authority	Funds Sanctioned	Present Status
		from	to			
1.	Sole Investigator, A Study on Ultrasound Assisted Crystallization of Clopidogrel Hydrogen Sulfate	01/09/2015	01/09/2017	Young Scientists/Start-Up Research Grant(SERB, DST), New Delhi	Rs.15.76 lacs	Completion report submitted
2.	Principal Developer, Development of Course "Crystallization and Drying" for Pedagogy Research Project	7/02/2015	30/03/2017	Ministry of Human Resource Development, Government of India	Rs. 5 lacs	completed
3.	Principal Investigator, A study on particle size and morphology of clopidogrel hydrogen sulphate by anti-solvent crystallization	20/08/2014	20/08/2016	Institute Research Grant, SVNIT.	Rs.10 lacs	completed
4.	Principal Investigator, Sonocrystallization for the recovery of valuable products from dairy waste stream	1/07/2007	28/02/2008	R & D Grant of the Institute, SVNIT.	Rs. 2.25 lacs	completed
5.	Co-Investigator,	1/07/2007	28/02/2008	R & D Grant of the	Rs. 4.14	completed

	Evaluate the performance of tertiary treatment in a full scale upflow anaerobic sludge blanket (UASB) based sewage treatment plant (STP)			Institute, SVNIT.	lacs	

9. PhD Completed (Including thesis Submitted Cases)

Sr. No.	Student Name Adm. No.	Title of Thesis	Main Supervisor	Co-Supervisor	Remarks
1.	Nalin H. Maniya (DS11CH002)	Porous silicon in drug delivery applications	Dr. Z.V.P. Murthy	**Sanjaykumar R. Patel**	**Degree Awarded**
2.	Nitu Kumari (DS14CH007))	Preparation and Optimization of Perovskite Thin Film Solar Cells	**Sanjaykumar R. Patel**	Dr. J. V. Gohel	**Degree Awarded**
3.	Chetan Sharma (DS14CH004))	Registered for PhD	**Sanjaykumar R. Patel**	Dr. M. A. Desai	
4.	Arunkumar Maganbhai Patel (DS15CH004))	Registered for PhD	**Sanjaykumar R. Patel**	-	
5.	Preena Shrimal (D17CH004)	Registered for PhD	**Sanjaykumar R. Patel**	Dr. G.C. Jadeja	
6.	Daxa L. Sharma (D17CH005)	Registered for PhD	**Sanjaykumar R. Patel**	Dr. Z.V.P. Murthy	
7.	MS PREETI JAIN (D17CH002)	Registered for PhD	Dr. M. A. Desai	**Sanjaykumar R. Patel**	

10. Publications
i. Science Citation Index or Scopus (papers)

Sr. No.	Name of journal	Vol. No. /Page no.	Month/ year	Title of paper
1.	Crystal Research and Technology	44(8), 889 – 896	2009	Ultrasound assisted crystallization for the recovery of lactose in an anti-solvent acetone.
2.	Crystal Research and Technology	45(7), 747–752	2010	Optimization of process parameters by Taguchi method in the recovery of lactose from whey using sonocrystallization.
3.	Crystal Research and Technology	46 (3), 243 – 248	2011	Effect of process parameters on lactose crystal size and morphology in ultrasound assisted crystallization.
4.	Dairy Science and Technology	91(1), 53-63	2011	Waste whey valorization: Speedy recovery of lactose from dairy waste stream.
5.	Chemical and Process Engineering	32(4), 379-389	2011	Anti-solvent Sonocrystallization of Lactose
6.	Separation & Purification Reviews	41, 251 – 266	2012	Lactose recovery processes from whey: a comparative study based on sonocrystallization.
7.	Superlattices and Microstructures	55, 144-150.	2013	Electrochemical preparation of microstructured porous silicon layers for drug delivery applications
8.	Optik – International Journal for Light and Electron Optics	125, 828-831.	2014	Simulation and fabrication of porous silicon photonic crystal

9.	Journal of Crystal Growth	390, 114-119	2014	Ultrasound Assisted Reactive Crystallization of Strontium Sulfate,
10.	Materials Research Bulletin	57, 6–12	2014	Study on Surface Chemistry and Particle Size of Porous Silicon Prepared by Electrochemical Etching
11	Applied Surface Science	330, 358–365.	2015	Controlled delivery of acyclovir from porous silicon micro-and nanoparticles,
12.	Superlattices and Microstructures	34-42	2015	Fabrication and application of porous silicon multilayered microparticles in sustained drug delivery
13.	Chemical Engineering Research and Design	104, 551–557	2015	Development and in vitro evaluation of acyclovir delivery system using nanostructured porous silicon carriers
14.	Reviews of advanced materials science	44, 257-272	2016	Drug delivery with porous silicon films, microparticles, and nanoparticles
15.	Optik – International Journal for Light and Electron Optics	144 422-435	2017	Multi-response optimization of ZnO thin films using Grey-Taguchi technique and development of a model using ANN
16.	Materials Science in Semiconductor Processing	75, 149–156	2018	Optimization of TiO_2/ZnO bilayer electron transport layer to enhance efficiency of perovskite solar cell
17.	Crystal Research and Technology	53(3),	2018	Ultrasound-assisted anti-solvent crystallization of telmisartan using Dimethyl Sulfoxide as organic solvent
18	Reviews of advanced materials science	53, 161-186	2018	Current Progress and Future Prospective of Perovskite Solar Cells: A comprehensive Review
19	Optical and quantum electronics	50:180	2018	Optical and structural properties of ZnO thin films prepared by spray pyrolysis for enhanced efficiency perovskite solar cell application
20	*Journal of Materials Science: Materials in Electronics*	29,18144-18150	2018	Enhanced stability and efficiency of Sn containing perovskite solar cell with $SnCl_2$ and SnI_2 precursors
21	Optik – International Journal for Light and Electron Optics	176, 262-27,	2019	Superior efficiency achievement for FAPbI3-perovskite thin film solar cell by optimization with response surface methodology technique and partial replacement of Pb by Sn,

ii. Non- SCI/SCOPUS

1. Abhijit A. Lonare, **Sanjaykumar R. Patel**, Antisolvent crystallization of poorly water soluble drugs, International Journal of Chemical Engineering and Applications, Vol. 4, No.5, October 2013,337-341.
2. Nitu Kumari, Sanjaykumar R. Patel, Jignasa V. Gohel, "Optimization of type and concentration of dopant (Sb and Al) for ZnO thin films prepared by spray pyrolysis technique and their applications in perovskite solar cells" ***International Journal of Research***, 4 (2017) 938-941.
3. **Sanjaykumar R. Patel, Parth Kayasth**, Ultrasound Assisted Cooling Crystallization of Lactose Monohydrate, International Journal of chemical and molecular Engineering, 12(2), pp.39-42, 2018

11. Papers published/presented in International Conference/Seminar:

1. Sanjaykumar R. Patel, Parth Kayasth, Ultrasound Assisted Cooling Crystallization of Lactose Monohydrate, Conference proceedings, Bankok, Thailand, February 08-09, 2018, 20(2), pp. 415-418. Proceedings of the "20th International Conference on Applied Chemistry and Chemical Engineering", Bangkok, Thailand, organized by the World Academy of Science, Engineering and Technology

2. Nitu Kumari, **Sanjaykumar R. Patel** and Jignasa V. Gohel, Optimization of type and concentration of dopant (Sb and Al) for ZnO thin films prepared by spray pyrolysis technique and their applications in perovskite solar cells, *International Journal of Research,* 4, 938-941, 2013, a special issue of National conference on "Recent advances and future Trends in chemical Technology-2017, 16th September, 2017, Nirma University, Ahmedabad.

3. Abhijit Lonare, **Sanjaykumar R. Patel**, Antisolvent crystallization of poorly water soluble drugs, International Journal of Chemical Engineering and Applications, 4(5), 337-341, a special issue of 4th International Conference on Chemical Engineering and Applications (CCEA 2013), held 12-13, October, 2013, Paris, France.
4. Amar Deep Pathak, **Sanjay R. Patel,** and Z.V.P. Murthy, A Comparative Study of Parameters in the Production of Alcohol from Cheese Whey to Reduce the BOD, Proceedings of the National Conference of on "Sustainable Urban Environment: Issues and Management Strategies, S.V. National Institute of Technology, Surat, Gujarat, 27th – 29th, February, 2008, pp. Theme III:62-67. (Eds: R.A. Christian, M.M. Ahammed, N.D. Jariwala and K.D. Yadav)
5. **Sanjay R. Patel,** Jayanth Madhav B, Jithin John Varghese, A.K. Mungray, and Z.V.P. Murthy, Sonocrystallization as a Method for the Treatment of Dairy Waste Streams, Proceedings of the "International Conference on Environmental Management: Scenario and Strategies to 2020", Ujjain Engineering College, Ujjain, M.P., India, 26th – 27th December, 2007, pp. 42-47.
6. Prakash Konakala, **Sanjay R. Patel,** A.K. Mungray, and Z.V.P. Murthy, Treatment of Anaerobic Reactor Effluents: A Comparative Approach, Proceedings of the "International Conference on Environmental Management: Scenario and Strategies to 2020", Ujjain Engineering College, Ujjain, M.P., India, 26th – 27th December, 2007, pp. 380-385.

Papers Presented and Abstract Published in the Proceeding of conference:
1. Aarti R. Deshmukh, Sanjaykumar R. Patel, Crystallization of clopidogrel hydrogen sulphate from methanol Iso-propanol system, Proceeding of International conference on nanotechnology applications: Chemical, Energy, and Environment, held on 22-23, March, 2017,SVNIT, Surat.**ISSN:978-93-5268-680-3**
2. Chetan Sharma, Sanjaykumar R. Patel, and Meghal A. Desai, Effect of Surfactants and Polymers on Particle Size and Morphology of Telmisartan in Antisolvent Crystallization, Proceeding of International conference on nanotechnology applications: Chemical, Energy, and Environment, held on 22-23, March, 2017, SVNIT, Surat. **ISSN:978-93-5268-680-3**
3. Nitu Kumari, Sanjaykumar R. Patel and Jignasa V. Gohel, "Effect of annealing temperature on the structural, morpholological and optical properties of zinc oxide thin films prepared by spin coating technique"- presented a paper at ***ICSDEE-2017*** organized by NCL Pune from 16-17 January 2017. **ISSN:978-93-24457-19-0**
4. Sagar V. Deotale, Sanjaykumar R. Patel, and Meghal A. Desai, Solubility and Bioavailability of Poorly Soluble Drugs using Novel Approaches: A Review, Proceeding of International conference on material and characterisation techniques (ICMCT 2014), 10-12, March, 2014, VIT University, Tamilnadu, India.

Paper Presented at conferences

Sr. No.	Name of Conference/Seminar	Month/year	Venue	Title
International Conference/Seminar				
1.	International Congress of Environmental Research (ICER-08)",	18-20, December, 2008	BITS, Goa	Lactose Recovery using Sonocrystallization in an Anti-solvent 'Acetone'
2.	ICON-NANO 2013 - **An International Conference on** Surface Science and Nanotechnology in Biomedical, Pharmaceutical & Engineering Systems	December 10-12, 2013.	**Dharmsinh Desai University, Nadiad**	Electrochemical Etching of Porous Silicon Layers for Drug Delivery System
3.	*ICM-2016*	13-15 May 2016.	Mahatma gandhi University, Kottayam	Zinc Oxide thin films preparation, characterization and their application in solar energy
4.	*Symposium on sustainability of chemical industries: exploring new avenues for growth: 2017*	22-23 August 2017	GCET, Aanad	Titanium oxide thin film preparation, characterization and application in dye sensitized solar cells
5.	the 65th Annual Session of the Indian Institute of Chemical Engineers	27-30, December 2012	NIT Jalandhar	A Study on the Reactive Crystallization Process

12. Edited books/Proceedings:

1. Edited Conference proceedings on "Emerging Trends in Chemical Engineering", 7th -8th May, 2008, Department of Chemical Engineering, SVNIT, Suart.

13. M.E./M.Tech. Dissertations Guided: 7 completed

Sr. No.	Student Name Adm. No.	Month & Year of Completion	Title of Thesis	Co-Supervisor (if any)
1.	Gaurav S. Saxena (P11CH005)	June 2013	A study on the antisolvent crystallization of lactose	-
2.	Abdul Rahim (P11CH023)	June 2013	A Study on the Reactive Crystallization Process of Strontium Sulfate	-
3.	Mr. Abhijit Lonare (P12CH011)	July 2014	A Study on Antisolvent Crystallization of Telmisartan	-
4.	Mr. Sagar Deotale (P12CH016)	July 2014	Solubility Estimation of Telmisartan in Pure and Binary Solvents	Dr. M.A. Desai
5.	Manoj Rangnathrao Korke (P13CH014)	July 2015	A study on Reactive Crystallization of Lithium Carbonate	-
6.	Parth R. Kayastha(P14CH013)	July 2016	Ultrasound Assisted Cooling Crystallization of Lactose	
7.	Khomane Vishal Dattatraya (P15CH002)	August 2017	Multi Response Optimization of Ultrasound Assisted Reactive Crystallization of $SrSO_4$	

14. Event Organized:

(i) STTP/Worlshop/Finishing School

Sr. No.	Name of Faculty Member	Name of Programme	Dates of Programme
1.	Sanjay R. Patel (coordinator)	STC on Green Concepts in Engineering & Chemistry	12th – 16th December, 2016
2.	Sanjay R. Patel (coordinator)	STTP on Recent Trends in Chemical Engineering	7-15 July,2016
3.	Sanjay R. Patel (coordinator)	STTP on Design of Experiment for Process Optimization	6-10 June,2016
4.	Sanjay R. Patel (coordinator)	STTP on Design of Experiment and Artificial Neural Network	22-26 June,2015
5.	Sanjay R. Patel (coordinator)	One Day finishing School on Design of experiment using the Taguchi method: an Overview	25th April,2015
6.	Sanjay R. Patel (coordinator)	One Day workshop on FEM Simulations using COMSOL Multiphysics and Neural Network based Modelling using STATISTICA	7th August, 2014
7.	Sanjay R. Patel (coordinator)	One Day workshop on COMSOL multiphysics modeling	6th December, 2013
8.	Sanjay R. Patel (coordinator)	National Conference of on Emerging Trends in Chemical Engineering – Global Scenario (ETCE-08)	7 – 8th May, 2008.
9.	Sanjay R. Patel (Member of Local organizing committee)	ISTE Recognized workshop on Opportunities in Catalysis & Adsorptive separations	7-11th May, 2007

(ii) Confererences

Sr. No.	Name of Faculty Member	Name of Programme	Dates of Programme
1.	Sanjaykumar R.	National Conference of on Emerging Trends in Chemical	7 – 8th May,

	Patel (coordinator)	Engineering – Global Scenario (ETCE-08)	2008

15. Expert lecture Delivered

1. Case study on multi-response analysis in STTP at DBACER, Nagpur.
2. Taguchi Method and Analysis of Variance-Basic Procedure and case study in STTP at DBACER, Nagpur.
3. Taguchi Design of Experiments, Modeling and Optimization Techniques for engineering Applications, 27-02-17 to 03-03-17 at SVNIT, Surat.
4. Taguchi Design of Experiments, Modeling and Optimization Techniques for engineering Applications, December, 2016 at SVNIT, Surat.
5. Sonocrystallization Process in QIP sponsored Short Term Course on Green Concepts in engineering and chemistry on 12^{th} – 16^{th} December, 2016.
6. The Use of Ultrasound in crystallization Process in STTP on Recent Trends in Chemical Engineering under TEQIP-II on 11/07/2016 to 15/07/2016 at SVNIT, Surat.
7. Taguchi Method and Analysis of Variance in STTP on Design of Experiment for Process Optimization Overview under TEQIP-II on 7/06/16 at SVNIT, Surat.
8. Solving of Multiresponse Optimization Problems in STTP on Design of Experiment for Process Optimization Overview under TEQIP-II on 10/06/16 at SVNIT, Surat.
9. Optimization using Taguchi Method delivered at STTP on "Optimization: Theory and Engineering Practice", Vishwakarma Government Engineering College, Chandkheda, Gandhinagar. (18/12/2015)
10. Optimization of Process Parameters using Taguchi Method: Case study delivered at One Day Workshop on "Design of Experiments using the Taguchi Method and Artificial Neural Network", Pacific School of Engineering, Palsana, Surat. (13/07/2015)
11. Expert lectures on Solving of Taguchi method and ANOVA in STTP on Design of Experiment and Artificial Neural Network under TEQIP-II held during 22-26 June,2015 at SVNIT, Surat.
12. Taguchi method and ANOVA using Excel in finishing school on Design of experiment using the Taguchi method: an Overview under TEQIP-II on 25/04/15 at SVNIT, Surat.
13. "Ultrasonic assisted processes-I & II" in STTP on Green chemistry and engineering: Towards a sustainable future under TEQIP-II on 20/11/13 at SVNIT, Surat.
14. "Ultrasound assisted separation processes for Industrial applications" in workshop entitled "Performance Enhancement of ETP" on 12th April, 2012 organized at FETR, Bardoli.
15. Introduction to chemical engineering thermodynamics" on March, 2012 at FETR, Bardoli.
16. Introduction to ASPEN Plus Simulation" in STTP on Chemical Process Simulation-application of software in chemical engineering on 4/02/12 at SCET, Surat.
17. Introduction to Reactor Simulation" in STTP on Chemical Process Simulation-application of software in chemical engineering on 12/02/12 at SCET, Surat

16. Other Relevant Information

i. Member (M) / Life Member (LM) / Life Fellow (LF) of the Following Bodies:

1. Indian Institute of Chemical Engineers (IIChE), LM-46892
2. Institution of Engineers (India) (IE(I)), M-161180-6
3. International Congress of Chemistry and Environment,FM(FICCE)-Fl/2018/011

ii. Reviewed/reviewing technical papers of Journals

1. International Journal of Sustainable Energy (Taylor & Francis Group Publication, USA)
2. Journal of The Institution of Engineers (India): Series E(8-11-2017)
3. Ultrasonics Sonochemistry (Elsevier Scientific Publication) (23-07-2016, 2-09-2016)
4. Chemical Engineering & Technology (Wiley-VCH Verlag Gmbh & Co.KGaA, Germany)(14-12-2017)
5. Crystal Research & Technology (Wiley-VCH Verlag Gmbh & Co.KGaA)(29-11-2017)

iii. Administrative Responsibilities

1. Institute Level

Sr. No.	Name of the assignment	Duration
1.	**Chief Warden,** Swami Vivekanand Bhavan	04-06-2014 to till date
2.	**Chief Warden,** Swami Vivekanand Bhavan	1-01-2014 to 04-06-2014
3	Deputy Centre In-Charge Admission committee for JoSSA, B.Tech and M.Sc. First year Admission	JoSSA 2017 JoSSA 2018
4	Warden, Swami Vivekanand Bhavan	1-07-2013 to 31-12-2013
5	Warden, Tagore Bhavan	1-07-2012 to 1-07-2013
6	Warden, Tagore Bhavan	4-10-2011 to 1-07-2012
7	Associate Warden, Narmad Bhavan	26-12-2008 to 15/07/2009
8	Chairman, Council of Purchase Committee	22/03/2017 to till date
9	Chairman, Council of Purchase Mess Secretary	25/09/2014 to 22-03-2017
10	Chairman, Hostel Discipline Committee	14-08 -14 to 22-03-2017
11	Co-Chairman, Magazine Secretary	06-09-2013 to 25-09-2014
12	Co-Chairman, Purchase Committee	25/09/2014 to 22-03-2017
13	Member, Remission of tuition Fee, B.Tech-I	
14	Member, Draft policy on prevention of plagiarism in M.Tech/PhD	
15	Member, Unnat Bharat Abhiyan	
16	Member, Rajbhasha Committee	
17	Co-opted member, institute level scrutiny committee for non teaching position	
18	Faculty Co-ordinator, Welcome function for the first year student, ChED	
19	Faculty member, Scrutiny of application forms, student election-2015	
20	Faculty Coordinator, Discipline committee, Kashish-2015, Kashish-2016	

2. Department Level

Sr. No.	Name of the assignment	Duration
1	Coordinator of Time Table Committee	4-09-2008 to 2-05-2014
2	CAD lab In-charge in the Department	4-09-2008 to till date
3	G.C.T lab incharge in the department	4-09-2008 to 4-08-2011
	Coordinator, Service to community & Tribal development	02-05-2014 to till date
5.	Coordinator, Industrial alumni feedback	02-05-2014 to till date

iv. Workshops/Summer Schools/ Winter schools/Short term Courses attended:

Sr. No.	Institute	Title	Period		
			From	To	Weeks/ days
1.	STC	Product and Process Optimization Using Designed Experiment	18/03/2016	20/03/2016	3 days
2	NIT, Warangal	Sonoprocess Engineering	22/02/2016	26/02/2016	5 days
3.	SVNIT, Surat	Interfacial Engineering and Nanotechnology for Sustainable environment	10/08/2015	14/08/2015	5 days
4.	DBIM, Surat	Data Analysis and Design of experiment using MINITAB	13/02/2015	14/02/2015	2 Days
5.	SVNIT,	STTP on Green chemistry and engineering: Towards a	18-11-13	22-11-13	5 days

	Surat	sustainable future			
6.	SVNIT, Surat	Hindi software Prashikshan karyashala	21/10/2013	25/10/2013	5 days
7	SVNIT, Surat	Advances on waste water treatment and energy generation	30/09/2013	4/10/2013	**5** days
8	SVNIT, Surat	Workshop on nanotechnology applications for sustainable development	19-04-2013	21-04-2013	3 days
9	SVNIT, Surat	Workshop on intensive Hindi training	23-07-2012	27-07-2012	5 days
10	IIT, Bombay	CEP course on challenges for faculty to meet the need of industry	8-06-2010	12-06-2010	5 days
11	SVNIT, Surat	STTP on Treatment and Disposal of wastewater	5-10-2009	9-10-2009	5 days
12	SVNIT, Surat	STTP on Advanced Instrumental methods of analysis	24-08-2009	28-08-2009	5 days
13	SVNIT, Surat	STTP on Sustainable water and wastewater management techniques	27-07-2009	31-07-2009	5 days
14	SVNIT, Surat	STTP on Nanotechnology: A sustainable development to environment	19-01-2009	23-01-2009	5 days
15	IIT, Bombay	CEP course on CFD analysis in chemical engineering	7-07-2008	11-07-2008	5 days
16	SVNIT, Surat	Pedagogy Training	12-05-2008	15-05-2008	4 days
17	SVNIT, Surat	Training on research methodology in engineering	16-05-2008	17-05-2008	2 days
18	SVNIT, Surat	Induction training	21-01-2008	23-01-2008	3 days
19	SVNIT, Surat	workshop on Opportunities in Catalysis & Adsorptive separations	7-05-2007	11-05-2007	5 days
20	UICT, Mumbai	DST-SERC School on Advanced Separation Processes in Chemical & Biochemical Process Industries	21-03-2007	24-03-2007	4 days
21	SVNIT, Surat	Short Term Programme on Application Orientation in Engineering Mathematics & Mathematical Modeling	26-12-2006	30-12-2006	5 days
22	SVNIT, Surat	Workshop on advanced Analytical Techniques for Material Characterization	8-06-2006	10-06-2006	3 days