

**Dr. Girirajsinh C. Jadeja****Assistant Professor**

Chemical Engineering Department  
S.V. National Institute of Technology  
Ichchhanath, Dumas Road,  
Surat – 395007, Gujarat



Phone No.: +91 261 2201643, 2201642  
+91 9408611268

e-mail id: [jgc@ched.svnit.ac.in](mailto:jgc@ched.svnit.ac.in)  
[gcjadeja@gmail.com](mailto:gcjadeja@gmail.com)

**ACADEMIC DETAILS**

---

- **Ph.D.** from Indian Institute of Technology Delhi, New Delhi (2010)  
Thesis Title: “Extraction of Phytochemicals from Vanilla and Neem using Pressurized Fluids”
- **M.Tech.** in Chemical Engineering from Institute of Technology, Banaras Hindu University (BHU), Varanasi (2004)  
Dissertation Title: “Catalytic Conversion of Aqueous Ethanol into Hydrocarbons”
- **B.E.** in Chemical Engineering from V.V.P. Engineering College, Saurashtra University, Rajkot (2001)

**EXPERIENCE**

---

Designation	Name of the Institute	Period
Assistant Professor	S.V. National Institute of Technology, Surat	Since 16-08-2013
Lecturer	S.V. National Institute of Technology, Surat	02-08-2010 to 01-08-2013

**RESEARCH AREAS OF INTEREST**

---

Novel Green Extraction Techniques for Recovering Valuable Chemicals from Renewable Resources (Sub/super critical Fluid Extraction, Pressurized Liquid Extraction, Aqueous Two Phase Extraction)

**Details of Ph.D. Students**

---

No.	Name of the Student	Topic	Supervisor/s	Status
1.	Sanjay Kumar Srivastava	Catalytic upgradation of bio-oil model components towards transportation fuels and chemicals	Dr. G.C. Jadeja Dr. J.K. Parikh	Completed
2.	Chandrabhushan T. Pal (DoJ:16/07/2015)	Studies on extraction of phenolic antioxidants from fruit and vegetable wastes using emerging green techniques	Dr. G.C. Jadeja	Ongoing
3.	Prajapati Rahul V. (DoJ:18/12/2015)	Studies on photocatalytic degradation of organic pollutants	Dr. J.K. Parikh Dr. G.C. Jadeja	Ongoing

4.	Preena Shrimal (DoJ:20/07/2017)	Studies on microreactor assisted crystallization of poorly water soluble active pharmaceutical ingredients	Dr. S.R. Patel Dr. G.C. Jadeja	Ongoing
5.	Priti V. Ganorkar (DoJ:21/07/2017)	Extraction of valuable compounds from water hyacinth	Dr. M.A. Desai Dr. G.C. Jadeja	Ongoing

### Details of M.Tech Students

---

No.	Name of the Student	Topic	Guide/s	Status
1.	Chandak Sagar Omprakash	Development of biolubricant from mahua oil	Dr. G. C. Jadeja	Completed
2.	Shrinivas Tejerao Mundkar	Studies on extraction of phenolic compounds from cactus pear using deep eutectic solvents	Dr. G. C. Jadeja	Completed
3.	Bari Abhishek	Valorization of pomegranate ( <i>Punica granatum</i> L.) peels using deep eutectic solvents	Dr. J.K. Parikh Dr. G.C. Jadeja	Completed
4.	Satayvir	Deep Eutectic Solvent systems for biomass pre-treatment	Dr. G.C. Jadeja	Ongoing

### FUNDED RESEARCH PROJECT

---

Sr. No.	Name of Faculty Project Investigators	Title of project	Funding Agency	Sanctioned Amount (Rs.)	Project Duration	Status
1.	Dr. M. A. Desai (PI) Dr. G. C. Jadeja	Mango Waste Valorization through Biorefinery Concept: A Sustainable and Greener Approach	SERB-DST, New Delhi	50,60,880/-	3 years (2018-2021)	Ongoing
2.	Dr. J.K. Parikh (PI) Dr. M. A. Desai Dr. G. C. Jadeja	Studies on Novel Techniques for Extraction of Essential oil from Patchouli	CSIR, New Delhi	12,06,940/-	3 years (2013-2016)	Completed

### COURSE DEVELOPMENT WORK

---

Co-developer of the course on “**Chemical Reaction Engineering-I**” under MHRD sponsored project on “Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning”

([http://www.ide.iitkgp.ernet.in/Pedagogy\\_view/example.jsp?USER\\_ID=58](http://www.ide.iitkgp.ernet.in/Pedagogy_view/example.jsp?USER_ID=58))

## RESEARCH PUBLICATIONS/PRESENTATIONS

---

### INTERNATIONAL JOURNALS:

- Chandra Bhushan T Pal, **G. C. Jadeja**, "Deep eutectic solvent-based extraction of polyphenolic antioxidants from onion (*Allium cepa* L.) peel"  
Journal of the Science of Food and Agriculture (Published online 30 September 2018)  
(DOI No.: 10.1002/jsfa.9395)
- Sanjay Srivastava, **G.C.Jadeja**, Jigisha K. Parikh, "Optimization and Reaction Kinetics Studies on Copper-Cobalt Catalyzed Liquid Phase Hydrogenation of 5-Hydroxymethylfurfural to 2,5-Dimethylfuran"  
International Journal of Chemical Reactor Engineering, 16 (9) (Published online).  
(DOI No.: 10.1515/ijcre-2017-0197)
- Sanjay Srivastava, **G.C.Jadeja**, Jigisha Parikh, "Copper-cobalt catalyzed liquid phase hydrogenation of furfural to 2-methyl furan: An optimization, kinetics and reaction mechanism study"  
Chemical Engineering Research and Design, 132, 313-324, 2018.  
(DOI No.: 10.1016/j.cherd.2018.01.031)
- Sanjay Srivastava, **G.C.Jadeja**, Jigisha Parikh, "Synergism studies on alumina-supported copper-nickel catalysts towards furfural and 5-hydroxymethylfurfural hydrogenation"  
Journal of Molecular Catalysis A: Chemical, 426 (Part A), 244-256, 2017.  
(DOI No.: 10.1016/j.molcata.2016.11.023)
- Sanjay Srivastava, **G.C.Jadeja**, Jigisha Parikh, "Studies on influence of supports for selective production of 2,5-dimethylfuran via bimetallic copper-cobalt catalyzed 5-hydroxymethylfurfural hydrogenolysis"  
Chinese Journal of Catalysis, 38, 699-709, 2017.  
(DOI No.: 10.1016/S1872-2067(17)62789-X)
- Sanjay Srivastava, **G.C.Jadeja**, Jigisha Parikh, "A versatile bi-metallic copper-cobalt catalyst for liquid phase hydrogenation of furfural to 2-methyl furan"  
RSC Advances, 6, 1649-1658, 2016.  
(DOI No.: 10.1039/c5ra15048e)
- **G.C.Jadeja**, R.C.Maheshwari and S.N.Naik, "Extraction of natural insecticide azadirachtin from neem (*Azadirachta indica* A. Juss) seed kernels using pressurized hot solvent"  
The Journal of Supercritical Fluids, 56, 253-258, 2011.  
(DOI No.: 10.1016/j.supflu.2011.01.004)
- P.K.Rout, S.N.Naik, Y.R.Rao, **G.Jadeja** and R.C.Maheshwari, "Extraction and composition of volatiles from *Zanthoxylum rhesta*: Comparison of subcritical CO<sub>2</sub> and traditional processes"  
The Journal of Supercritical Fluids, 42, 334-341, 2007.  
(DOI No.: 10.1016/j.supflu.2007.01.001)

### NATIONAL JOURNALS:

- K.A. Shah, D.R. Bhatt, M.A. Desai, **G.C.Jadeja** and J.K. Parikh, "Extraction of essential oil from Patchouli leaves using hydrodistillation: parametric studies and optimization"  
Indian Journal of Chemical Technology, 24, July 2017, 405-410.

- S.N.Naik, **G.C.Jadeja**, R.C. Pradhan and P.K. Rout, “Extraction of natural products using supercritical fluids and pressurized liquids”  
Pharmaceutical and Biological Evaluations, Vol. 1, 9-24, 2014.  
(<http://www.onlinepbe.com/extraction-of-natural-products-using-supercritical-fluids-and-pressurized-liquids/>)

### **INTERNATIONAL CONFERENCE PROCEEDINGS:**

- **G.C. Jadeja**, M.A. Desai, D.R. Bhatt and J.K. Parikh, “Green Extraction of Patchoulol from Patchouli leaves using Ultrasound-assisted Ionic Liquids”, ICACCE 2018: 20<sup>th</sup> International Conference on Applied Chemistry and Chemical Engineering, 8-9 February 2018, Bangkok, Thailand.
- **G.C.Jadeja**, S.N.Naik and R.C.Maheshwari, “Pressurized Liquid Extraction of natural flavour from *Vanilla planifolia* Andrews”, 10<sup>th</sup> International Symposium on Supercritical Fluids, 13-16 May 2012, San Francisco, USA.
- **G.C.Jadeja**, R.C.Maheshwari and S.N.Naik, “Extraction of natural insecticide azadirachtin from neem (*Azadirachta indica* A. Juss) seed kernels using pressurized hot solvent”, II Iberoamerican Conference on Supercritical Fluids (PROSCIBA 2010), 5-9 April 2010, Natal, Brazil.
- **G.C.Jadeja** and S.N.Naik, “Pressurized Liquid Extraction of Azadirachtin from Neem (*Azadirachta indica* A. Juss) seed kernels”, 9<sup>th</sup> International Symposium on Supercritical Fluids, 18-20 May 2009, Arcachon, France.
- **G.C.Jadeja** and S.N.Naik, “Pressurized Solvent Extraction of Neem (*Azadirachta indica* A. Juss) seed kernels for azadirachtin rich extracts”, Green Science and Technology Conference 2008, 10-11 June 2008, Regina, Canada.
- **G.C.Jadeja**, S.N.Naik and R.C.Maheshwari, “Extraction of *Vanilla Planifolia* Andrews by Pressurized Solvent”, 8<sup>th</sup> International Symposium on Supercritical Fluids, 5-8 November 2006, Kyoto, Japan.

### **NATIONAL CONFERENCE PROCEEDINGS:**

- **G.C.Jadeja** and S.N.Naik, “Pressurized Hot Solvent Extraction of Neem Seed Kernels and its Comparison with Conventional Methods”, 61<sup>st</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2008), 27-30 December 2008, Chandigarh.
- **G.C.Jadeja**, S.N.Naik and R.C.Maheshwari, “Supercritical CO<sub>2</sub> and Pressurized Liquid Extraction of *Vanilla Planifolia* Andrews”, 59<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2006), 27-30 December 2006, Bharuch.
- **G.C.Jadeja**, P.Ahuja and S.K.Tewari, “Catalytic Conversion of Aqueous Ethanol into Hydrocarbons over HZSM-5 Zeolite”, National Conference on Biomass as source of Energy and Chemicals, 13-14 February 2004, IT-BHU, Varanasi.

### **STTP/WORKSHOP/TRAINING COURSE Organized**

- QIP Sponsored Short Term Course on “**Green Concepts in Engineering and Chemistry**” during 12<sup>th</sup> to 16<sup>th</sup> December, 2016 at Chemical Engineering Department, SVNIT, Surat.

Coordinators: Dr. S.R. Patel, Dr. M. A. Desai and Dr. G.C. Jadeja

- TEQIP-II Sponsored Short Term Training Programme on “**Recent Trends in Chemical Engineering**” during 11<sup>th</sup> to 15<sup>th</sup> July, 2016 at Chemical Engineering Department, SVNIT, Surat.

Coordinators: Dr. Z.V.P. Murthy, Dr. V.N. Lad, Dr. S.R. Patel, Dr. M. A. Desai and Dr. G.C. Jadeja

- TEQIP-II Sponsored Short Term Training Programme on “**Green Chemistry and Engineering: Towards A Sustainable Future**” during 18<sup>th</sup> to 22<sup>nd</sup> November, 2013 at Chemical Engineering Department, SVNIT, Surat.

Coordinators: Dr. J.K. Parikh, Dr. M. A. Desai and Dr. G.C. Jadeja

### **WORKSHOPS/SEMINARS/STTPs Participated**

<b>Sr. No.</b>	<b>Name of Conference/Seminar/Workshop</b>	<b>Period (Year)</b>	<b>Organizer</b>
1.	Journey of Analytical Techniques in Chemical and Biological Sciences	19-24 December (2016)	Applied Chemistry Department, SVNIT, Surat
2.	Particle Technology: Characterization and Modeling of Particulate Materials	1-5 August (2016)	Chemical Engineering Department, SVNIT, Surat
3.	Design of Experiment for Process Optimization	6-10 June (2016)	Chemical Engineering Department, SVNIT, Surat
4.	Science and Technology of Advanced Materials	21-23 August (2015)	Applied Physics Department, SVNIT, Surat
5.	Interfacial Engineering and Nanotechnology for Sustainable Environment	10-14 August (2015)	Chemical Engineering Department, SVNIT, Surat
6.	Design of Experiment and Artificial Neural Network	22-26 June (2015)	Chemical Engineering Department, SVNIT, Surat
7.	Design of Experiment using Taguchi Method: An Overview	25 April (2015)	Chemical Engineering Department, SVNIT, Surat
8.	Curriculum Revision Workshop	17 October (2014)	Chemical Engineering Department, SVNIT, Surat
9.	Hindi Workshop	24-28 Feb (2014)	Hindi Cell, SVNIT, Surat
10.	One-day workshop on COMSOL Multiphysics Modeling	6 Dec (2013)	Chemical Engineering Department, SVNIT, Surat
11.	STTP on “Recent Trends in Nanomaterials Synthesis, Characterization and Applications”	14-18 Oct (2013)	Chemical Engineering Department, SVNIT, Surat
12.	STTP on “Advances on Wastewater Treatment and Energy Generation”	30 Sept-4 Oct (2013)	Chemical Engineering Department, SVNIT, Surat
13.	STTP on “Computational Fluid Dynamics for Engineers and Scientists”	8-12 July (2013)	Department of Applied Mathematics and Humanities, SVNIT, Surat
14.	Workshop on “Nanotechnology applications for sustainable development”	19-21 April (2013)	Chemical Engineering Department, SVNIT, Surat
15.	Workshop on “Six sigma and statistical analytical tools”	22 March (2013)	Chemical Engineering Department, SVNIT, Surat
16.	Workshop on “Chemical Engineering and Academics”	28 May - 1 June (2012)	Chemical Engineering Department, IIT Gandhinagar
17.	61 <sup>st</sup> Annual Session of Indian Institute	27-30	Chemical Engineering Department,

	of Chemical Engineers (CHEMCON 2008)	December (2008)	Panjab University, Chandigarh
18.	59 <sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2006)	27-30 December (2006)	GNFC, Bharuch
19.	National Conference on Biomass as source of Energy and Chemicals	13-14 February (2004)	Department of Chemical Engineering and Technology, IT-BHU, Varanasi

## **MEMBERSHIP OF PROFESSIONAL BODIES**

---

Life Member, Indian Institute of Chemical Engineers (IChE), Kolkata, India.

Life Member, Institute of Engineers (India), Kolkata, India.

Senior Member, American Institute of Chemical Engineers (AIChE).

## **ADMINISTRATIVE RESPONSIBILITIES**

---

- Departmental coordinator: Weekly seminar, UG/PG (Seminar, Project and Training), Stock verification and Feedback form analysis
- Departmental In-Charge: CAD lab and CRE lab
- Faculty Advisor: B.Tech-II