

**Details of full length Research Publication (in Peer- Reviewed Journals) during
the Period 1st April, 2014 to February, 2015**

[A] Details of research papers published/communicated in peer- reviewed journals

Dr. Harish Padh

Vice Chancellor, Coordinator of DST- PURSE program

(2011-till date)

- SH Almal, H Padh, Frequency distribution of autoimmunity associated FCGR3B gene copy number in Indian population, International Journal of Immunogenetics, 42 (1), 26-30, (2015). **[I.F.: 1.338]**
- N Chauhan, H Padh, Variants of NAT2 polymorphisms: intra and inter-ethnic differences, African Journal of Biotechnology, 13 (51), 4639-4646, (2014). **[I.F.: 0.57]**
- D Dhawan, H Padh, Stem cell biomarkers in early diagnosis, prognosis, and therapy of cancer, Cancer Biomarkers: Minimal and Noninvasive Early Diagnosis and Prognosis, 143, (2014).
- D Bhatt, N Chauhan, A Sharma, D Dhawan, RV Bhatt, S Phatak, H Padh, Investigating the role of plasma glucose concentration as a phenotypic marker for CYP2C9 genetic variants, in the diabetic population of Gujarat, Indian Journal of Pharmaceutical Sciences 76 (1), 72,(2014). **[I.F.: 0.296]**
- H Padh, Pharmacogenetics: polymorphism and genotype-phenotype correlation of drug response in Indian population, Molecular cytogenetics 7 (Suppl 1), I52, (2014). **[I.F.:2.66]**
- S Almal, H Padh, Gene copy number variation in Indian population and its implication in health, Molecular Cytogenetics, 7 (1), 1-1, (2014). **[I.F.:2.66]**
- A Gupta, H Padh, Genetic variation in intercellular adhesion Molecule-1 (ICAM-1): candidate gene in susceptibility to malaria in the Indian population, Molecular Cytogenetics, 7 (1), 1-1, (2014). **[I.F.: 2.66]**
- S Patel, H Padh, C Bhavsar, Manova over anova—a better objective in bioequivalence study, International Journal of Pharmaceutical Science and Research 4 (5), 1874-1881, (2013). **[I.F.:2.44]**
- D Dhawan, H Padh, Pharmacogenomics and Personalized medicine for cancer, Omics for Personalized Medicine, 215-235, (2013).
- NM Sakhrani, H Padh, Organelle targeting: third level of drug targeting, Drug Design Development and Therapy, 7, 585, (2013). **[I.F.:3.026]**
- D Dhawan, H Panchal, S Shukla, H Padh, Genetic variability & chemotoxicity of 5-fluorouracil & cisplatin in head & neck cancer patients: a preliminary study, The Indian Journal of Medical Research, 137 (1), 125, (2013). **[I.F.:1.661]**

- P Sharma, H Padh, N Shrivastava, Hairy root cultures: A suitable biological system for studying secondary metabolic pathways in plants, *Engineering in Life Sciences*, 13 (1), 62-75, (2013). **[I.F.:1.89]**
- S Almal, A Gupta, H Padh, SDF-1 gene polymorphism and CCL3L1 gene copy number and susceptibility to HIV-1/AIDS among Indians, *BMC Infectious Diseases*, 12 (1), 1-1, (2012). **[I.F.:2.56]**
- PN Desai, H Padh, Expression of erythropoietin in Indian tetraploid potato variety, *F1000Research*, (2012). (Doi: 10.3410/f1000research.1-26.v1)
- H Vaidya, A Prajapati, M Rajani, V Sudarsanam, H Padh, RK Goyal, Beneficial effects of swertiamarin on dyslipidaemia in streptozotocin-induced type 2 diabetic rats, *Phytotherapy Research*, 26 (8), 1259-1261, (2012). **[I.F.:2.397]**
- D Shep, R Ojha, R Rathod, S Patel, M Nivsarkar, S Maroo, H Padh, Bioequivalence study of two oral formulations of metamizole 500 mg in healthy volunteers, *International Journal of Pharmaceutical Sciences & Research*, 3 (6), (2012). **[I.F.:2.44]**
- A Gupta, H Padh, The global distribution of CCR5 delta 32 polymorphism: role in HIV-1 protection, *BMC Infectious Diseases* 12 (Suppl 1), O16, (2012). **[I.F.:2.56]**
- D Barh, V Agte, D Dhawan, H Padh, Cancer biomarkers for diagnosis, prognosis and therapy, *Molecular and Cellular Therapeutics*, 18-68, (2012). **[I.F.:2.06]**
- SH Almal, H Padh, Implications of gene copy-number variation in health and diseases, *Journal of Human Genetics*, 57 (1), 6-13, (2012). **[I.F.:2.526]**
- A Varma, H Padh, N Shrivastava, Ecogeographical phytochemistry of *Adhatoda vasica* nees in relation to quantitative variations of alkaloids, *JPC-Journal of Planar Chromatography-Modern TLC*, 24 (5), 406-411, (2011). **[I.F.:0.670]**
- A Banerjee, H Padh, M Nivsarkar, Hormonal crosstalk with calcium channel blocker during implantation, *Systems Biology in Reproductive Medicine*, 57 (4), 186-189, (2011). **[I.F.:1.713]**
- DN Azmanov, S Dimitrova, L Florez, S Cherninkova, D Draganov, B Morar, LTBP2 and CYP1B1 mutations and associated ocular phenotypes in the Roma/Gypsy founder population, *European Journal of Human Genetics*, 19 (3), 326-333, (2011). **[I.F.:4.225]**
- A Varma, H Padh, N Shrivastava, Andrographolide: a new plant-derived antineoplastic entity on horizon, *Evidence-Based Complementary and Alternative Medicine*, (2011). (Doi: 10.1093/ecam/nep135) **[I.F.:2.175]**
- D Shep, A Ojha, S Patel, M Nivsarkar, V Jaiswal, H Padh, Comparative bioavailability study of a new formulation of injection of 75 mg diclofenac sodium in 1 ml with the conventional injection of 75 mg diclofenac sodium given in 3 ml volume, *Current Clinical Pharmacology*, 6 (1), 26-29, (2011).
- M Agarwal, N Shrivastava, H Padh, Development of sex-linked AFLP markers in *Simmondsia chinensis*, *Plant Breeding*, 130 (1), 114-116, (2011). **[I.F.:1.338]**

Department of Biosciences (2014-15)

1. Narra M., Dixit G., Divecha J., Kumar K., Madamwar D., Shah A., Production, purification and characterization of a novel GH 12 family endoglucanase from *Aspergillus terreus* and its application in enzymatic degradation of lignified rice straw, *International Biodeterioration and Biodegradation*, 88, 150-161, (2014). **[I.F.:1.399]**
2. Narra M., Balasubramanian V., Mehta H., Dixit G., Madamwar D., Shah A., Performance evaluation of aerobic hybrid reactors with different packing media for treating wastewater of mild alkali treated rice straw in ethanol fermentation process. *Bioresource Technology*, 152, 59-65, (2014). **[I.F.:5.039]**
3. Anwer K., Parmar A., Rahman S., Kaushal A., Madamwar D. Islam A., Hassan M.I., Ahmad F., Folding and stability studies on C-PE and its natural N- terminal truncant, *Archives of Biochemistry and Biophysics*, 545, 9-21, (2014). **[I.F.:3.043]**
4. Singh N. K., Hasan S.S., Kumar J., Raj I., Pathan A.A., Parmar A., Shakil S., Gourinath S., Madamwar D., Crystal structure and interaction of phycocyanin with β -secretase: A putative therapy for a Alzheimer's diseases, *CNS & Neurological Disorders: Drug Target*, 13 (4), 691-698, (2014). **[I.F.:2.702]**
5. Patel V., Munot H., Shouche Y.S., Madamwar D., Response of bacterial community structure to seasonal fluctuation and anthropogenic pollution on costal water of Alang-Sosiys ship nreaking yard, Bhavnagar, India, *Bioresource Technology*, 161, 362-370, (2014). **[I.F.:5.039]**
6. Raghavendra T., Vahora U., Shah A., Madamwar D., Enhanced conjugation of *Candida rugosa* lipase onto multiwalled carbon nanotubes using reverse micelles as attachment medium and application in non-aqueous biocatalysis, *Biotechnology Progress*, 30, 828-836, (2014). **[I.F.:1.883]**
7. Raghavendra T., Panchal N., Divecha J., Shah A., Madamwar D., Biocatalytic synthesis of flavor ester 'pentyl valerate' using *Candida rugosa* lipase immobilized in microemulsion based oraganogels: Effect of parameters and reusability, *Biomed Research International*, Article ID: 353845, (2014). **[I.F.:2.706]**
8. Khan R, Kahn Z., Bhatt N., Devecha J. Madamwar D., Azo dye decolorization under microaerophilic conditions by a bacterial mixture isolated from anthropogenic dye-contaminated soil. *Bioremediation Journal*, 18, 147-157, (2014). **[I.F.:0.714]**
9. Patel V., Nambiar S., Madamwar D., An extracellular solvent stable alkaline lipase from *Pseudomonas sp.* DMVR46: Partial purification, characterization and application in non-aqueous environment, *Process Biochemistry*, 49 (10), 1673-1681, (2014). **[I.F.:2.524]**
10. Sonani R. R., Singh N. K., Kumar J., Thakar D., Madamwar D., Concurrent purification and antioxidant activity of phycobiliproteins from *Lyngbya sp.* A09DM: An antioxidant and anti-aging potential of phycoerythrin in *Caenorhabditis elegans*, *Process Biochemistry*, 49(10), 1757-1766, (2014). **[I.F.:2.524]**
11. Balapure K. H., Jain K., Chattaraj S., Bhatt N.S., Madamwar D., Co-metabolic degradation of diazo dye – Reactive blue 160 by enriched mixed cultures BDN, *Journal of Hazardous Materials*, 279: 85-95, (2014). **[I.F.:4.331]**

12. Khan Z., Jain K., Soni A., Madamwar D., Microaerophilic degradation of sulphonated azo dye – Reactive Red 195 by bacterial consortium AR1 through co-metabolism, *International Biodeterioration & Biodegradation*, U.K. 94, 167-175, (2014). **[I.F.:1.399]**
13. Rastogi R. P., Incharoensakdia A., Madamwar D., Responses of a rice-field cyanobacterium *Anabaena siamensis* TISTR-8012 upon exposure to PAR and UV- radiation, *Journal of Plant Physiology*, Germany, 171, 1545-1553, (2014). **[I.F.:2.770]**
14. Sonani R. R., Singh N. K., Awasthi A., Prasad B., Kumar J., Madamwar D., Phycoerythrin extends life span and health span of *Caenorhabditis elegans*, *Age*, 36 (5), 9717, (2014). **[I.F.:3.445]**
15. Rastogi R. P. Sonani R. R., Madamwar D., The high-energy radiation protectant extracellular sheath pigment scytonemin and its reduced counterpart in cyanobacterium *Scytonema* sp. R77DM, *Bioresource Technology*, 171, 396-400, (2014). **[I.F.:5.039]**
16. Anwer K., Sonani R., Madamwar D. Singh P., Khan F., Bisetty K., Ahmed F., Hassan M. F. I, Role of N-terminal residues on residues on folding and stability of C-phycoerythrin: simulation and urea-induced denaturation studies, *Journal of Biomolecular Structure and Dynamics*, 33(1), 121-133, (2015). **[I.F.:2.983]**
17. Patel V., Gajera H., Gupta A., Manocha L., Madamwar D., Synthesis of ethyl caprylate in organic media using *Candida rugosa* lipase immobilized on exfoliated graphene oxide: Process parameters and reusability studies, *Biochemical Engineering Journal*, 95, 62-70, (2015). **[I.F.:2.368]**
18. Balapure K., Bhatt N., Madamwar D., Mineralization of reactive dyes present in stimulated textile waste water using down flow microaerophilic fixed film bioreactor, *Bioresource Technology*, 175, 1-7, (2015). **[I.F.:5.039]**
19. Sonani R. R., Rastogi R. P., Joshi M., Madamwar D., A stable and functional peptide phycoerythrin (15.45 kDa) from *Lyngbya* sp. A09DM, *International Journal of Biological Macromolecules*, 74, 29-35, (2015). **[I.F.:3.096]**
20. Singh N. K., Sonanai R. R., Rastogi R. P., Madamwar D., The phycobilisomes- an early requisite for efficient photosynthesis in cyanobacteria, *Experimental and Clinical Sciences International Journal*, 14, 268-289, (2015). **[I.F.:0.728]**
21. Nilanjana S. Baraiya, T.V. Ramana Rao, V. R. Thakkar, Composite coating as a carrier of antioxidants improves the postharvest shelf life and quality of Table grapes (*Vitis vinifera* L. var. Thompson seedless), *Journal of Agricultural Science and Technology*, (In Press). **[I.F.:0.679]**
22. Neeta B. Gol, Pinal B. Vyas, T. V. Ramana Rao, Evaluation of polysaccharide based edible coating for their ability to preserve the postharvest quality of Indian blackberry (*Syzygium cumini* L.), *International Journal of Fruit Science*, (2015) (Doi: 10.1080/15538362.2015.1017425)

23. Neeta B. Gol, Manu L. Chaudhari, T. V. Ramana Rao, Effect of edible coating on quality and shelf-life of carambola (*Averrhoa carambola L.*) fruit during storage, *Journal of Food Science and Technology*, 52 (1), 78-91, (2015). **[I.F.:2.024]**
24. Sonu Sharma, T. V. Ramana Rao, Xanthan gum based edible coating enriched with cinnamic acid prevents browning and extends the shelf life of fresh-cut pears. *LWT-Food Science and Technology*, (2014). (Doi: 10.1016/j.lwt.2014.11.050) **[I.F.:2.468]**
25. Soumya V., T. V. Ramana Rao, Health promoting and related enzyme activities of muskmelon fruit during its development and ripening, *Journal of Food Biochemistry*, 38: 415-423, (2014). **[I.F.:0.853]**
26. Nilanjana S. Baraiya, T.V. Ramana Rao, V. R. Thakkar, Enhancement of storability and quality maintenance of carambola (*Averrhoa carmbola L.*) fruit by using composite edible coating, *Fruits*, 69, 195–205, (2014). **[I.F.:0.8]**
27. Neeta B. Gol, T. V. Ramana Rao, Impact of zein and gelatin coatings on the postharvest quality maintenance and shelf life extension of mango (*Mangifera indica L.*), *Fruits*, 69, 1-15, (2014). **[I.F.:0.8]**
28. Soumya V., T. V. Ramana Rao, Nutritional Quality evaluation of four icebox cultivar of watermelon fruit during their development and ripening, *International Food Research Journal*, 21 (2), 631-639, (2014). **[I.F.:0.123]**
29. Prakash R. Patel, T. V. Ramana Rao, Growth and ripening in Blackplum [*Syzygium cumini (L.) Skeels*], *International Journal of Fruit Science*, 14 (2), 147 -156 (2014).
30. Pinal B. Vyas, Neeta B. Gol, T. V. Ramana Rao, Postharvest quality maintenance of papaya fruit by using polysaccharide based edible coatings, *International Journal of Fruit Science*, 14 (1), 81-94, (2014).
31. Pinal B. Vyas, Nilanjana S. Baraiya, Munira S. Suttarwala, T.V. Ramana Rao, Gelatine based coating combined with calcium chloride enhances the shelf life and nutritional quality of Sapota (*Manilkara zapota L. cv. Kalipatti*), PRAJANA (In Press) (2014).
32. Nilanjana S. Baraiya, T.V. Ramana Rao, V. R. Thakkar, Zein coating enriched with antioxidants improves post harvest quality and storability of Jamun fruit (*Syzygium cumini L. var. Paras*), Resubmitted to *Food and Bioprocess Technology*, (2015). **[I.F.:3.126]**
33. Disha D. Patel, Ravi R. Patel, Vasudev R. Thakkar, Purification, characterization and application of lipoxygenase isoenzymes from *Iasiodiplodia theobromae*, *Applied Biochemistry and Biotechnology*, 175, 513-525, (2015). **[I.F.:1.687]**
34. Pinaki B. Patel, Vasudev R Thakkar, Addition of citral controls ROS and reduces toxicity in 5-fluorouracil treated *Schizosaccharomyces pombe* cells. *Indian Journal of Experimental Biology* (In press), (2015). **[I.F.:0.753]**
35. Sharad C. Karad, Vishal B. Purohit, Dipak K. Raval, Piyush N. Kalaria, Jemin R. Avalani, Parth Thakor, Vasudev R. Thakkar, Green synthesis and pharmacological screening of polyhydroquinoline derivatives

- bearing a fluorinated 5-aryloxy pyrazole nucleus, *The Royal Society of Chemistry Advances*, 5(21), 16000–16009, (2015). **[I.F.:3.71]**
36. Ravi R. Patel, Disha D. Patel, Parth Thakor, Bhavika Patel, Vasudev R. Thakkar, Alleviation of salt stress in germination of *Vigna radiata L.* by two halotolerant Bacilli sp. isolated from saline habitats of Gujarat, *Plant Growth Regulation*, (2015). **[I.F.:1.625]** (Doi: 10.1007/S10725-014-0008-8)
 37. Pinaki B. Patel, Vasudev R Thakkar, L- Carvone induces p53, caspase 3 mediated apoptosis and inhibits the migration of breast cancer cell lines, *Nutrition and cancer* 66(3), 453-462, (2014). **[I.F.:2.635]**
 38. Nilanjana S. Baraiya, T.V. Ramana Rao, V. R. Thakkar, Enhancement of storability and quality maintenance of carambola (*Averrhoa carambola L.*) fruit by using composite edible coating, *Fruits*, 69: 195–205, (2014). **[I.F.:0.8]**
 39. Madhuri Narra, Garima Dixit, Jyoti Divecha, Kiran Kumar, Datta Madamwar, Amita Shah, Production, purification and characterization of a novel GH 12 family endoglucanase from *Aspergillus terreus* and its application in enzymatic degradation of delignified rice straw, *International Biodeterioration and Degradation*, 88, 150-161, (2014). **[I.F.:2.235]**
 40. Dhiraj Chavda, Sujata Bhatt, Occurrence of black gill disease in *Penaeus monodon* cultured in South Gujarat: A histopathology and antioxidant enzyme profile, *Life Sciences Leaflets*, 51, 18-32, (2014). **[I.F.:0.928]**
 41. Sukhanandi Sarasvati, Bhatt Sujata, Shah Amita, Effects of fermentation on nutritional quality of *Prosopis juliflora* pods as alternative fish feed, *Research Journal of Animal, Veterinary and Fishery Sciences*, 2 (12), 1-7, (2014).
 42. Sujata Bhatt, Khushbu Vithalani, Jaymin Patel, Subhash Bhatt, Fingerprint fractal dimension as a supplementary quantitative measure distinguishing fingerprints and gender, submitted to *Journal - Interdisciplinary Sciences: Computational Lifesciences*, (2015).
 43. Sarasvati Sukhanandi, Sujata Bhatt, On the effect of corn steep liquor as alternative protein source with lysine and chelated minerals on the growth, metabolism and defence response in *Labeo rohita* fingerlings, *Fish Physiology and Biochemistry*, (2015). (communicated)
 44. Rupal A. Vasant, A. V. R. L. Narasimhacharya, Antidotal activity of *Averrhoa carambola* (Star fruit) on fluoride induced toxicity in rats. *Interdisciplinary Toxicology*, 7 (2), 103–110 (2014), (Doi: 10.2478/intox-2014-0014)
 45. Sanjay S. Karn, A. V. R. L. Narasimhacharya, Physiologic and metabolic benefits of formulated diets and *Mangifera indica* in fluoride toxicity, *Journal of Dietary Supplement*, 1-020, (2014), (Doi: 10.3109/19390211.2014.952857)
 46. Rupal A. Vasant, Namrata D. Patel, Sanjay S. Karn, A. V. R. L. Narasimhacharya, Physiological role of a multigrain diet in metabolic regulations of lipid and antioxidant profiles in hypercholesteremic rats, *Journal of Pharmacopuncture*, 17 (2), 34-40, (2014). **[I.F.:0.313]**

47. Sanjay S. Karn, Sanjay B. Pandavadara, Rupal A. Vasant, A. V. R. L. Narasimhacharya, Lovastatin improves fluoride induced hypercholesterolemia in albino rats, *Fluoride*, 47 (1), 69-77, (2014). **[I.F.:0.931]**
48. Rupal A. Vasant, Elizabeth R.C. Vincent, Sanjay S. Karn, Narasimhacharya V.R.L. Amaravadi, Multigrain diet mitigates fluoride induced metabolic toxicity, *Journal of Environmental and Occupational Science*, 3(1), 25-30, (2014).
49. Khyati Pathak, Anjali Bose, Haresh Keharia, Identification and characterization of novel surfactins produced by fungal antagonist *Bacillus amyloliquefaciens* 6B, *Biotechnology and Applied Biochemistry*, 61(3), 349-356, (2014). **[I.F.:1.322]**
50. Anjali Bose, Shabnam Pathan, Khyati Pathak, Haresh Keharia, Keratinolytic protease production by *Bacillus amyloliquefaciens* 6B using feather meal as substrate and application of feather hydrolysate as organic nitrogen input for agricultural soil, *Waste and Biomass Valorization*, 5(4), 595-605, (2014).
51. Rita Mahapatra, Siva Satya Mohan Jampala, Dhananjay R.Patel, Induction of systemic acquired resistance in *Zea mays* L. by *Aspergillus flavus* and *A. parasiticus* derived elicitors, *Archives of Phytopathology and Plant Protection*. (Doi: 10.1080/03235408.2014.884523)
52. Vimal S. Prajapati, U. B. Trivedi, K. C. Patel, A statistical approach for the production of thermostable and alklophilic alpha-amylase from *Bacillus amyloliquefaciens* KCP2 under solid-state fermentation, *3 Biotech*, (2014). (Doi: 10.1007/s13205-014-0213-1)
53. Vimal Prajapati, U. Trivedi, K. C. Patel, Bioethanol production from the raw corn starch and food waste employing simultaneous saccharification and fermentation approach, *Waste and Biomass Valorization*, (2014). (Doi: 10.1007/s12649-014-9338-z)
54. Gopalkumar G. Raol, B. V. Raol, V. S. Prajapati, K. C. Patel, Kinetic and thermodynamic characterization of a halotolerant β -galactosidase produced by halotolerant *Aspergillus tubingensis* GR1, *Journal of Basic Microbiology*, 54, 1-11, (2015) **[I.F.:1.822]**
55. Yachana Jha, Gaurav Sablok, Naidu Subbarao, Raja Sudhakar, MHU Turabe Fazil, R B Subramanian, Andrea Squartini, Sunil Kumar, Bacterial-induced expression of RAB18 protein in *Orzya sativa* salinity stress and insights into molecular interaction with GTP ligand, *27 (9)*, 521-527, (2014). **[I.F.:2.337]**
56. Bhumuk Dave, Pritesh Parmar, Ankit Sudhir, Neetu singal, R B Subramanian, Cellulase production under solid state fermentation using agro waste as a substrate and its application in saccharification by *Tremetes hirsute* NCIM, *Journal of Microbiology Biotechnology and Food Sciences*, 4 (3), 203-208, (2014). **[I.F.:0.9801]**
57. Soumya V., T. V. Ramana Rao, Metabolic behavior and quality changes of yellow flashed watermelon fruit at different stages of watermelon, *Acta Physiologiae Plantarum*, (2015). **[I.F.:1.524]** (communicated)

58. T.V. Ramana Rao, Nilanjana S. Baraiya, Pinal B. Vyas, Dhara M. Patel, Composite coating of alginate-olive oil enriched with antioxidants enhances postharvest quality and shelf life of Ber fruit (*Ziziphus mauritiana* L. var. *Gola*), *Journal of Food Science and Technology*, (2014). [I.F.:2.024] (communicated)
59. Pinal B. Vyas, T. V. Ramana Rao, V. R. Thakkar, Combined effects of chemical and physical elicitors on postharvest quality of custard apple (*Annona squamosa* L.), *Scientia Horticulturae* on 21-10-2014, Manuscript no. HORTI-13070. [I.F.:1.504] (communicated)
60. Dhruvi Amin, Siva Satya Mohan Jampala, Dhananjay R. Patel, Induction of systemic acquired resistance in groundnut by foliar application of Headline (Pyraclostrobin 20% WG), *Archives of Phytopathology and Plant Protection*, (2015). (communicated)
61. Rudri K. Dave, T. V. Ramana Rao, Anil S. Nandane, Improvement of postharvest quality of pear fruit with optimized composite edible coating formulations, *Postharvest Biology and Technology*, (2015). [I.F.:2.628] (communicated)
62. Harshvadan Patel, Digantkumar Chapla, Jyoti Divecha, Amita Shah, Improved yield of α -L-arabinofuranosidase by newly isolated *Aspergillus niger*ADH-11 and synergistic effect of crude enzyme on saccharification of maize stover, *Bioresourcess and Bioprocessing*, (2015). (Accepted)
63. Harshvadan Patel, Jyoti Divecha, Amita Shah, Enhanced production of β -xylosidase by newly isolated *Aspergillus niger*ADH-11 under solid state fermentation and synergistic action of crude enzyme with commercial cellulose, *Waste and Biomass Valorisation*. (Under Review)
64. Sneha Trivedi, Jyoti Divecha, Tapan Shah, Amita Shah, Biocatalysis at high substrate loading for fructose production by immobilized inulinase on chitosan particles, *Journal of Biosciences*. (communicated)
65. Uma Kuwar, Sonu Sharma, T. V. Ramana Rao, Aloe vera gel and honey based coating as a safe means for quality maintenance and shelf life extension of fresh cut papaya, *Journal of Food Quality*, Manuscript no. JFQ-2014-211, (2015). [I.F.:0.768] (Under Review)

Department of Chemistry (2014-15)

66. Hemali B. Lad, Rakesh R. Giri, Chirag V. Patel, Varun G. Bhila and D. I. Brahmbhatt, Microwave assisted preparation of new dicoumarinyl pyrazoline derivatives as antimicrobials, *Current Microwave Chemistry* , 1, (2014).
67. Anil K. Patel, Niraj H. Patel, Mehul A. Patel, Chirag V. Patel, and Dinker I. Brahmbhatt, Synthesis and spectral characterization of some new 4-(2,6-diarylpyridin-4-yl)-2H-chromen-2-ones,, *Synthetic Communication*, 44 (13), 1881-1887,(2014). [I.F.: 0.984]
68. Chirag V. Patel, Varun G. Bhila, Niraj H. Patel , Apoorva A. Patel, Dinkar I. Brahmbhatt, An efficient synthesis and antimicrobial screening of new hybrid molecules containing coumarin and indenopyridine moiety, *Medicinal Chemistry Research*, (2014). (Doi: 10.1007/s00044-014-1228-157). [I.F.: 1.612]

69. Rakesh R. Giri, Hemali B. Lad, Varun G. Bhila, Chirag V. Patel and D. I. Brahmbhatt, Modified pyridine substituted coumarins - A new class of antimicrobial and antitubercular agents, *Synthetic Communication*, 45 (3), (2015). **[I.F.: 0.984]**
70. Hemali B. Lad, Rakesh R. Giri, Yogita L. Chovatiya and Dinkar I. Brahmbhatt, Synthesis of modified pyridine and bipyridine substituted coumarins as potent antimicrobial agents, *Journal of Serbian of chemical society*, (2015). (Doi: 10.2298/JSC140804004L). **[I.F.: 0.889]**
71. Varun G. Bhila, Yogita L. Chovatiya, Chirag V. Patel, Rakesh R. Giri, Dinkar I. Brahmbhatt , A convergent approach for the synthesis of new pyrazolyl bipyridinyl substituted coumarin derivatives as antimicrobials, *International Letters of Chemistry, Physics and Astronomy, ILCPA 1 ; 1-16* ,(2015). **[I.F.: 1.5]**
72. S. S. Soni, R. L Vekharia, N. V. Sastry, H. P. Soni, S. R. Patil, S. H. Panjabi, Non electrolyte Induced Micellar Shape Changes in Aqueous Solutions of Silicone Surfactants, *J. Dispersion Science and Technology*, 35, 1419 – 1426 (2014). **[I.F: 0.720]**
73. Mohan N. Patel, Anshul P. Patidar, Parag S. Karia, Pankaj A. Vekariya Cytotoxic, Antibacterial and nucleic acid interaction studies of square planar palladium (ii) complexes, *InorganicaChimicaActa*, 419, 45–54, (2014). **[I.F. :2.041]**
74. M. N. Patel , H. N. Joshi, C. R. Patel , Cytotoxic, DNA binding, DNA cleavage and antibacterial studies of ruthenium- fluoroquinolone complexes, *Journal of Chemical Sciences*, 126(3), 739–749, (2014). **[I.F.: 1.224]**
75. Jugal V. Mehta, Sanjay B. Gajera, Mohan N. Patel, Antimalarial, antimicrobial, cytotoxic, DNA interaction and SOD like activities of tetrahedral copper(II) complexes, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 136, 1881–1892, (2015). **[I.F. : 2.129]**
76. Jugal V. Mehta, a Sanjay B. Gajera, Disha D. Patel b , Mohan N. Patel, A Synthesis, spectral investigation and development of tetrahedral copper(II) complexes as an artificial metallo-nucleases and antimalarial agents, *Applied Organometalic Chemistry*, (2015). **[I.F.: 2.017]** (accepted)
77. Sanjay B. Gajera, Jugal V. Mehta, Mohan N. Patel, DNA interaction, cytotoxicity, antibacterial and antituberculosis activity of an oxovanadium(IV) complexes derived from fluoroquinolones and 4-hydroxy-5-((4-hydroxyphenyl)diazenyl)thiazole-2(3H)-thione, *RSC Advances*, (2015). **[I.F. :3.7]** (accepted)
78. Mohan N. Patel, Parag S. Karia, Pankaj A. Vekariya, Anshul P. Patidar Synthesis, characterization and biological elucidation of mixed ligands Cu(II) complexes as artificial metallonucleases, *Journal of Pharmaceutical Science and Emerging Drugs*. **[I.F.: 2.6]** (accepted)
79. Hardik H. Jardosh and Manish P. Patel, Antimicrobial and antioxidant evaluation of new quinolone based aurone analogs, *Arabian Journal of Chemistry* (2014). (Doi: 10.1016/j.arabjc.2014.05.014). **[I. F.: 2.266]**
80. Viran P. Mahida and Manish P. Patel, Removal of some most hazardous cationic dyes using novel poly (NIPAAm/AA/Nallylisatin) nanohydrogel, *Arabian Journal of Chemistry* (2014), (Doi: 10.1016/j.arabjc.2014.05.016.). **[I. F.:2.266]**

81. Mehul B. Kanani and Manish P. Patel, Synthesis of N-arylquinolone derivatives bearing 2-thiophenoxyquinolines and their antimicrobial evaluation, Chinese Chemical Letters, DOI:10.1016/j.ccl.2014.04.002 (2014). **[I. F.- 1.210]**
82. Mehul B. Kanani and Manish P. Patel, Facile construction of densely functionalized thiopyrano [2, 3-b]quinolines via three-component reactions catalyzed by L-proline, RSC Advances, 4, 28798–28801 (2014). **[I. F.- 2.562]**
83. Viran P. Mahida and Manish P. Patel, Synthesis of new superabsorbent poly (NIPAAm/AA/N-allylisatin) nanohydrogel for effective removal of As(V) and Cd(II) toxic metal ions, Chinese Chemical Letters, 25, 602-604, (2014). **[I. F.- 1.210]**
84. Narsidas J. Parmar, Balvantsingh M. Labana, Hitesh A. Barad, Rajni Kant, Vivek K. Gupta, An efficient domino Knoevenagel/hetero-Diels–Alder route to some novel thiochromenoquinoline-fused polyheterocycles, Monatsh Chem., 145, 1179-1189 (2014). **[I.F.: 1.347]**
85. Narsidas J. Parmar, Bhagyashri D. Parmar, Tushar R. Sutariya, Rajni Kant, Vivek K. Gupta, An efficient synthesis of some thiopyranopyrazole-heterocycles via domino reaction in a Brønsted acidic ionic liquid, Tetrahedron Letters, 55, 6060–6064, (2014). **[I.F.: 2.391]**
86. Narsidas Parmar, Shashikant Teraiya, Rikin Patel, Hitesh Barad, Harshur Jajda, Vasudev Thakkar, Synthesis, antimicrobial and antioxidant activities of some 5-pyrazolone based Schiff bases, Journal of Saudi Chemical Society, 19, 36-41, (2015). **[I.F.: 0.928]**
87. Tushar R. Sutariya, Balvantsingh M. Labana, Narsidas J. Parmar, Rajni Kant, Vivek K. Gupta, Gabriela B. Plata, José M. Padrón, Efficient synthesis of some new antiproliferative N-fused indoles and isoquinolines via 1,3-dipolar cyclo addition reaction in ionic liquid, New Journal of Chemistry (Doi: 10.1039/C4NJ02380K). **[I.F.: 3.159]**
88. Tushar R. Sutariya, Balvantsingh M. Labana, Bhagyashri D. Parmar, Narsidas J. Parmar, Rajni Kant, Vivek K. Gupta, A domino synthetic approach for some new, angular pyrazol– and isoxazol–heterocycles using [DBU][Ac] as an effective reaction medium, RSC Advances, (Doi: 10.1039/C5RA00493D). **[I.F.: 3.708]**
89. Saurabh S. Soni, Deepali A. Kotadia, Time-dependent stereoselective Heck reaction using mesoporous Pd/TiO₂ nanoparticles catalyst under sunlight, Catalysis Science and Technology, 4, 510-515, (2014). **[I.F.: 3.75]**
90. S. S. Soni, K. B. Fadadu, R. L. Vekariya, J. Debgupta, K. D. Patel, A. Gibaud, V. K. Aswal, Effect of self-assembly on triiodide diffusion in water based polymer gel electrolytes: An application in dye solar cell, Journal of Colloid and Interface Science, 425, 110-117, (2014). **[I.F.: 3.16]**
91. S. S. Soni, R. L. Vekariya, N. V. Sastry, H. P. Soni, S. R. Patil, S. H. Panjabi, Nonelectrolyte-Induced micellar shape changes in aqueous solutions of silicone surfactants, Journal of Dispersion Science & Technology, 35 (10), 1419-1426, (2014). **[I.F.: 0.76]**

92. Deepali A Kotadia, Urmila H. Patel, Sahaj Gandhi, Saurabh S. Soni, Pd doped SiO₂ nanoparticles : An efficient recyclable catalyst for Suzuki, Heck and Sonogashira reactions. RSC Advances, 4, 32826-32833, (2014). [I.F.: 2.56]
93. Saurabh S. Soni, Deepali A. Kotadia, Vaibhav K. Patel, Hiren Bhatt, A synergistic effect of microwave/ultrasound and symmetrical acidic ionic liquids on transesterification of vegetable oils with high free fatty acid, Biomass Conversion and Biorefinery, (2014) (Doi: 0.1007/s13399-013-0112-4).
94. Dipankar Barpuzary, Anindya S. Patra, Jayraj V. Vaghasiya, Bharat G. Solanki, Saurabh S. Soni, Mohammad Qureshi, highly efficient one-dimensional zno nanowire-based dye sensitized solar cell using a metal free, D- π -A type, Carbazole derivative with more than 5% power conversion, ACS Applied Materials Interface Science, 6, 12629-12639, (2014). [I.F.: 5.89]
95. Rohit L. Vekariya, Debes Ray, Vinod K. Aswal, Puthusserickal A. Hassan, Saurabh S. Soni. Effect of ionic liquids on microstructures of micellar aggregates formed by PEO-PPO-PEO block copolymer in aqueous solution, Colloids and Surfaces A: Physicochemical and Engineering Aspects, 462, 153-161, (2014). [I.F.: 2.354]
96. Deepali A. Kotadia, Saurabh S. Soni, Stable mesoporous Fe/TiO₂ nanoparticles: A recoverable catalyst for solvent-free synthesis of propargylamine via C H activation, Applied Catalysis A: General, 488, 231–238, (2014). [I.F.: 1.52]
97. Rohit L. Vekariya, Vinod K. Aswal, Puthusserickal A. Hassan, Saurabh S. Soni, Influence of N-Alkylpyridinium halide based ionic liquids on micellization of P123 in aqueous solutions: A SANS, DLS, and NMR Study, Langmuir, 30, 14406–14415, (2014). [I.F.:4.38]
98. Karuna A. Rawat, Kiran R. Surati, Suresh Kumar Kailasa, One-pot synthesis of gold nanoparticles by using 4-aminoantipyrine as a novel reducing and capping agent for simultaneous colorimetric sensing of four triptan-family drugs, Analytical Methods, 6, 5972-5980 (2014). [I.F.: 1.938]
99. Sharad C. Karad, Vishal B. Purohit, Dipak K. Raval, Piyush N. Kalaria, Jemin R. Avalani, Parth , Thakor and Vasudev R. Thakkar, Green synthesis and pharmacological screening of polyhydroquinoline derivatives bearing a ,fluorinated 5-aryloxy pyrazole nucleus, RSC Advances,5, 16000–16009 (2015). [I. F.: 3.708]
100. Purohit Vishal B., Karad Sharad C., Patel Kirit H., D. K. Raval, Cu (N-heterocyclic carbene)chloride: An efficient catalyst for multicomponent click reaction for the synthesis of 1,2,3-triazoles in water at room temperature, RSC Advances, 4, 46002–46007 (2014). [I. F.: 3.708]
101. P. N. Kalaria, J. A. Makawana, S. P. Satasia, D. K. Raval, H. L. Zhu Design, Synthesis and molecular docking of novel bipyrazole based thiazolone scaffold as a new class of antibacterial agents, Medicinal Chemistry Communications, (2014) (Doi: 10.1039/C4MD00238E). [I. F.: 2.626]
102. Kalaria Piyush, Satasia Shailesh, D. K. Raval, L-proline promoted green and regioselective synthesis of novel pyrazole based trifluoro-methylated fused thiazolopyran scaffold and their biological evaluation, RSC Advances, 4, 32353-32362 (2014). [I. F.: 3.708]

103. Karad Sharad, Purohit Vishal, D. K. Raval , Design, synthesis and characterization of fluoro substituted novel pyrazolopyrazolines scaffold and their pharmacological screening, *European Journal of Medicinal Chemistry*, 84, 51-58, (2014). **[I.F.: 3.432]**
104. Kalaria Piyush, Satasia Shailesh, Jemin Avalani, D. K. Raval, Ultrasound-assisted one-pot four-component synthesis of novel 2-amino-3-cyanopyridine, derivatives bearing 5-imidazopyrazole scaffold and their biological broadcast, *European Journal of Medicinal Chemistry*, 83, 655-659, (2014). **[I.F.: 3.432]**
105. Satasia Shailesh, Kalaria Piyush, D. K. Raval, An efficient approach for the synthesis of spirooxindole derivatives catalyzed by novel sulfated choline based heteropolyanion at room temperature, *Tetrahedron*, 70, 5763-5767, (2014). **[I. F.: 2.871]**
106. Kalaria Piyush, Satasia Shailesh, D. K. Raval, Synthesis, identification and in vitro biological evaluation some novel 5-imidazopyrazole, incorporated pyrazoline and isoxazoline derivatives, *New Journal of Chemistry*, 38, 2902-2910, (2014). **[I. F.: 3.519]**
107. Satasia Shailesh, Kalaria Piyush, D. K. Raval, Heteropolyanion-based sulfated Ionic Liquid catalyzed formamides synthesis by grindstone chemistry, *Journal of Molecular Catalysis A: Chemical*, 391, 41-47, (2014). **[I. F.: 3.679]**
108. Kalaria Piyush, Satasia Shailesh, D. K. Raval, Synthesis, characterization and pharmacological screening of some novel 5-imidazo pyrazole, incorporated polyhydroquinoline derivatives, *European Journal of Medicinal Chemistry*, 78, 207-216, (2014). **[I. F.: 3.432]**
109. Rakesh Patel, Umesh Tarpada, D. K. Raval, Study on copolymers synthesized from 2,3-epoxypropyl-3-(2-furyl)acrylate–methyl methacrylate and their glass fibre reinforced composites, *Journal of Polymer Engineering*, (2014), (Doi: 10.1515/polyeng-2013-0084) . **[I.F.: 0.5]**
110. S. P. Satasia, P. N. Kalaria, D. K. Raval, Catalytic regioselective synthesis of pyrazole based pyrido [2,3-d]pyrimidine-diones and their biological evaluation, *Organic & Biomolecular Chemistry*, 12 (11), 1751 – 1758, (2014). **[I. F.: 3.487]**
111. Kalaria Piyush, Satasia Shailesh, D. K. Raval, Synthesis, characterization and biological screening of novel 5-imidazopyrazole incorporated fused pyran motifs under microwave irradiation, *New Journal of Chemistry*, 38 (4), 1512 – 1521, (2014). **[I. F. : 3.519]**
112. Umesh Tarpada, Bhautik Thummar, D. K. Raval, A green protocol for the synthesis of quinoxaline derivatives catalyzed by polymer supported sulphanilic acid, *Arabian Journal of Chemistry*, (2013), (Doi:10.1016/j.arabjc.2013.11.021) .**[I.F.:2.684]**
113. A. N. Dadhanian, V. K. Patel, D. K. Raval, Ionic liquid promoted facile and green synthesis of 1,8-dioxo-octahydroxanthene derivatives under microwave irradiation, *Journal of Saudi Chemical Society*, (2014), **[I. F.:1.288]** (in press)

114. Jignesh H. Trivedi, T. A. Bhatt, H. C. Trivedi, Synthesis and Characterization of Poly(butyl methacrylate) grafted Sodium salt of Partially Carboxymethylated Guar Gum, *Cellulose Chemistry and Technology*, 48 (5-6), 503-514 , (2014). **[I. F. :0.833]**
115. J. H. Trivedi, M. D. Thaker, H. C. Trivedi, Photo-Induced Graft Copolymerization of Acrylonitrile onto Sodium salt of Partially Carboxymethylated Guar Gum, *Journal of Applied Polymer Science*, 132 (5), (2015). **[I. F.:1.6]**
116. J. H. Trivedi, M. D. Thaker, H. C. Trivedi, Photo-induced synthesis and characterization of poly (methyl methacrylate) grafted sodium salt of partially carboxymethylated guar gum, *Chinese Journal of Polymer Science*, 32(12), 1690-1703, (2014). **[I. F.:1.420]**
117. J. H. Trivedi, A.V. Chourasia, H. C. Trivedi, Photo-Induced synthesis and characterization of poly(methyl acrylate) grafted sodium salt of partially carboxymethylated sodium alginate, *Cellulose Chemistry and Technology*, 49 (1), 7-19, (2015). **[I. F.: 0.833]**
118. Bhagyashri D. Parmar, Tushar R. Sutariya, Gaurangkumar C. Brahmabhatt, Narsidas J. Parmar, Rajni Kant, Vivek K.Gupta, The domino reaction in methyl imidazolium hydrogen sulphate under microwave irradiation: a rapid access to some new chromenothiopyrano [2,3-c]pyrazoles, (2015). (communicated)
119. Balvantsingh M. Labana, Tushar R. Sutariya, Gaurangkumar C. Brahmabhatt, Narsidas J. Parmar, José M. Padrón; Synthesis and biological evaluation of benzopyran–annulated pyrano[2,3-c]pyrazoles, (2015). (communicated)

Department of Computer Science (2014-15)

120. Virparia P V, Megha Vaidya, Hetalkumar Panchal, Insilico Interactive study of periplasmic and outer membrane proteins of type IV secreting system (t4ss) in *Helicobacter pylori*, *Journal of Cancer Science & Therapy*, 6 (3), 105-109, (2014).
121. Virparia P V, Pankaj Parsania, A review: Image interpolation techniques for image scaling, *International Journal of Innovative Research in Computer and Communication Engineering*, 2 (12), 7409-7414, (2014). **[I. F.: 4.447]**
122. Virparia P V, Hardik Vyas, Optical Gujarati braille recognition: A review, *Proceedings of International Conference on Information, Knowledge & Research in Engineering, Management & Sciences*, Kalol Institute of Technology & Research Centre, Kalol, (2014).
123. Virparia P V, Jigisha Patel, Pritesh Patel, Purchase order receiving application for grocery store using gujarati speech recognition, *Proceedings of IEEE sponsored International Conference on Computational Intelligence and Communication Networks*, JRNRV University, Udaipur, (2014).
124. Virparia P V, Amisha H Shingala, Virendra Ingle, Transforming information system requirements expressed in natural language into database conceptual modeling, *Proceedings of IEEE sponsored International Conference on Computational Intelligence and Communication Networks*, JRNRV University, Udaipur, (2014).

125. Virparia P V, Sohil Pandya, A proposed model for information retrieval using delicious api by generating folksonomy based tag cloud, Proceedings of IEEE sponsored International Conference on Computational Intelligence and Communication Networks, JRNRV University, Udaipur, (2014).
126. Virparia P V, Milan B Kadivar: Study of botnet in cybercrime, Proceedings of IEEE sponsored International Conference on Computational Intelligence and Communication Networks, JRNRV University, Udaipur, (2014).
127. Joshi N., Choksi D.B., Implementation of process forensic for system calls, International Journal of Advanced Research in Engineering and Technology, 5 (6), 77-82, (2014).
128. Bhatt R.D., Choksi D.B., A comparative study of simulation tools for distributed environment, International Journal of Engineering Research & Management, 1 (7), 114-119, (2014).
129. Sagar S. Patel, Hetalkumar J. Panchal, Evolutionary studies in sub-families of Leguminosae family based on matK gene in plant gene & trait, Plant Gene & Trait, 5 (7), 1-9, (2014). [I. F.: 0.286]
130. Sagar S. Patel, Hetalkumar J. Panchal, De Novo RNA seq assembly and annotation of *Trigonella foenum-graecum* L.(SRR066197), Legume Genomics and Genetics, 5(7), 1-7, (2014).
131. Sagar S. Patel, , Hetalkumar J. Panchal, Comparative study of five legume species based on de novo sequence assembly and annotation, Computational Molecular Biology, 4 (9), 1-6, (2014). [I. F.: 0.4]
132. Sagar S. Patel, Hetalkumar J. Panchal, De Novo RNA seq assembly and annotation of *Phaseolus vulgaris* L. (SRR1283084), Genomics and Applied Biology, 5 (5), 1-6, (2014). [I. F.: 0.875]
133. Sagar S. Patel, Hetalkumar J. Panchal, De Novo RNA seq assembly and annotation of *Cicer arietinum* L. (SRR627764), Legume Genomics and Genetics 2014, 5 (6), 1-6, (2014).
134. Sagar S Patel, Conseq Tool: A tool to find conserved region in protein sequences of Leguminosae family, Journal of Advanced Bioinformatics Applications and Research, 5 (3), 134-139, (2014).
135. Sagar S Patel, Phylogenetics analysis of some Leguminosae family species based on rbcl sequence data, International Journal of Advanced Biotechnology and Research, 5 (3), 331-336, (2014). [I. F.: 1.506]
136. Sagar Patel, Phylogeny in few species of Leguminosae family based on *matK* sequence, Computational Molecular Biology, 4 (6), 1-5, (2014). [I. F.: 0.4]
137. Sagar Patel, Megha Vaidya, Homology modelling of conserved rbcl amino acid sequences in Leguminosae family, Data Mining in Genomics & Proteomics. [I. F.: 2.706]
138. Parul D. Sindha, Atul Patel, A color and shape based real time traffic sign detection and recognition system, International Journal in IT and Engineering, 3 (1), 36-42, (2015). [I. F.: 3.570]

139. Chirag Patel, Atul Patel, A novel approach for detecting number plate based on overlapping window and region clustering for Indian conditions, International Journal of Image, Graphics and Signal Processing. (Online)
140. Biraj Patel, Jay Patel, XML integration with meta-search engine, International Journal of Advanced Research in Computer Science and Software Engineering, 4 (8), 1129-1131, (2014) **[I. F.: 2.5]**
141. Biraj Patel, Jay Patel, Fuzzy logic implementation for ranking of search results in meta-search engine, International Journal of Advanced Engineering Research and Studies, 3 (4), 114-115, (2014).
142. Parul D Sindha, Traffic sign detection and recognition system using translation of images, International Journal of Advanced Research in Computer Science and Software Engineering, 4 (10), 433-435, (2014). **[I. F.: 2.080]**
143. Vaidya, N.M., Sajja, P.S., Intelligent virtual collaborative learning environment, International Journal of Research in Computer Science and Information Technology, 2 (2), 116-118, (2014). **[I. F.: 1.7]**
144. Macwan, N.A. and Sajja, P.S., Fuzzy logic: An effective user interface tool for decision support system, International Journal of Engineering Science and Innovative Technology, 3(3), 278-283, (2014). **[I. F.: 1.9]**
145. Mekie, J.M., Mehta, D.R. and Sajja, P.S., A survey on effects of computer based technology for special needs learners, International Journal of Advanced Networking Applications, Special Issue, 29-33 (2014). **[I. F.: 3.4]**
146. Sajja, P.S., Automatic generation of agents using reusable soft computing code libraries to develop multi agent system for health care, International Journal of Technology and Computer Science, 7(2), (2015).
147. Sajja, P.S., Research directions in new artificial intelligence: A case of neuro-fuzzy system for web mining, Prajna, 21, (2015).
148. Jeegar A Trivedi, Voice identification system using neuro-fuzzy approach, International Journal of Advanced Research in Computer Science & Technology, 2 (3), 300-301, (2014). **[I. F.: 0.889]**
149. Jeegar A Trivedi, Analysis of fat & water soluble vitamins in human body using neuro-fuzzy approach, International Journal of Advanced Research in Computer Science & Technology, 2 (3), 280-282, (2014). **[I. F.: 0.889]**
150. Hardik Jani, Jeegar A Trivedi, A survey on different compression techniques algorithm for data compression, International Journal of Advanced Research in Computer Science & Technology, 2 (3), 364-368, (2014). **[I. F.: 0.889]**
151. Priyanka Raval, Jeegar A Trivedi., Comparative analysis of eight different cryptographic algorithms with fourteen factors, International Journal of Advanced Research in Computer Science and Software Engineering, 4(9), 1004-1006, (2014). **[I. F.: 2.5]**

152. Jeegar A Trivedi, Method of solving fuzzy assignment problem by Hungarian method and robust's ranking technique using triangular and trapezoidal fuzzy number, Research Zone India, 3(1), 10-12, (2014).

Department of Materials Sciences (2014-15)

153. Rasmika H. Patel, Kaushal S. Patel, Synthesis of flame retardant polyester-urethanes and their applications in nanoclay composites and coatings, Polymer International, 63, 529-536, (2014). [I. F.:2.247]
154. Rasmika H. Patel, Amin V. Hirani, Hitesh B. Patel, Flame retardant polyurethanes and their applications for the improvement in properties of conventional castor oil based polyurethane, Material Science Research India, 11(2), 159-167, (2014).
155. P. A. Rayjada, N. P. Vaghela, N. L. Chauhan, A. Sircar, E. Rajendrakumar, L. M. Manocha, P. M. Raole, Process Optimization of Er₂O₃ coating by reactive magnetron sputtering for DEMOR elevant blanket modules, Fusion Science and Technology, 65 (2), 194-198, (2014). [I. F.:0.591]
156. Harshad Patel , L M Manocha, S Manocha, Synthesis and microstructure analysis of aligned carbon nanotube/pyrocarbon composites, New Carbon Materials, 29 (5), 374-379 (2014).
157. Vrutika Patel, Hasmukh Gajera, Anamika Gupta, Lalit Manocha, Datta Madamwar, Synthesis of ethyl caprylate in organic media using Candida rugosa lipase immobilized on exfoliated graphene oxide: Process parameters and reusability studies, Biochemical Engineering Journal, 95, 62-70, (2015). [I. F.:2.368]

Department of Homescience (2014-15)

158. Anjali Bhatt, Vinayak Patel, Evaluation of actual antioxidant capacity of papaya (*Carica papaya*) using an *in vitro* gastrointestinal model, International Journal of Fruit Science, 5 (1), 26-35, (2014).
159. Vincenta Khristi, Jisha Elias, Neeta Dave, Vinayak Patel, Gene expression analysis of anti-oxidative enzymes in yeast against oxidative stress in presence of cinnamomum zeylanicum, Research Journal Of Pharmaceutical, Biological and Chemical Sciences, 5 (5), 1387-1396, (2014).
160. Hinal Patel, DP Raykundaliya, NR Dave, Rema S, VH Patel, Prevalence of Risk Factors for Cardiovascular Disease among the Adult Male Population of Vallabh Vidyanagar, Gujarat, India. Research and Reviews, Journal of Medical and Health Sciences, 3 (3), 89-95, (2014).
161. Anjali Bhatt, Vinayak Patel, Estimation of antioxidant potential of banana using both simulated gastrointestinal model as well as conventional extraction, Indian Journal of Experimental Biology. on [I.F.:0.753] (Accepted)

Department of Statistics (2014-15)

162. Shanubhogue, A., Raykundaliya, D.P., A test for main effects when observations are randomly right censored, *Advances and Applications in Statistics*, 39 (1), 01-23, (2014). [I. F.:0.914]
163. Shanubhogue, A., Raykundaliya, D.P., Test for homogeneity of lifetimes of several systems under generalized inverted scale family of distributions based on Type II censored sampling design, *InterStat*. (<http://interstat.statjournals.net/YEAR/2014/abstracts/1407001.php>), (2014).
164. Mafatlal M Kher, Dimpal Joshi, Sureshkumar Nekkala, M Nataraj, Dharmesh P Raykundaliya, B R Doshi, Micropropagation of *pluchea lanceolata* (oliver & hiern.) using nodal explant, *Journal of Horticultural Research*, 22, 35-39 (2014) [I. F.:0.347]
165. Patel H., Raykundaliya, D.P., Dave, N.R., Rema, S., Patel, V.H., Prevalence of Risk Factors for cardiovascular disease among the adult male population of Vallabh Vidyanagar, Gujarat, Inida, *Research and Review: Journal of Medical and Health Science*, 3 (3), (2014).
166. Shanubhogue, A., Raykundaliya, D.P., An Inferential problem about comparison of lifetimes of homogeneity of several systems under generalized exponential distribution with type ii censored sampling design, *ProbStat*, (2015).
167. Bhatt Milind B., Characterization of uniform distribution $u(0, \theta)$ through expectation, *Research Journal of Mathematical and Statistical Sciences*, 2(2), 16-19, (2014).
168. Bhatt Milind B., Characterization of uniform distribution $u(0, \theta)$ through expectation of function of order statistics, *Research Journal of Mathematical and Statistical Sciences*, 2(7), 1-3, (2014).
169. Bhatt Milind B., Characterization of generalized uniform distribution $u(0, \theta)$ through expectation, *Open Journal of Statistics*, 3, 563-569, (2014). [I. F.:0.72]
170. Jignesh Gondaliya, Construction of minimal balanced cross over designs having good efficiency of separability, *Electronic Journal of Statistics*, 8, 2923–2936, (2014). [I. F.:1.024]
171. Aiyengar, R., Determination of combined and second order factor effects for simultaneous optimization of physical and mechanical properties of NR/BR blend system, *Tire Science and Technology, TSTCA*, 42 (4), 290–304, (2014).
172. Tripti Raghavendra et al., Biocatalytic synthesis of flavor ester “pentyl valerate” using *candida rugosa* lipase immobilized in microemulsion based organogels: effect of parameters and reusability, *BioMed Research International*, (2014), [I. F.:2.706]
173. Patel P. A., Patel Jigna, Variance estimation for the Greg estimator in finite population: combining design-based approach and model-based approach, *Pakistan Journal of Statistics and Operation Research*, (communicated).

174. Shanubhogue, A., Raykundaliya, D.P., Estimation of parameters and reliability characteristics in self relocated design under generalized inverted family of distribution, Journal of Multivariate Analysis. [**I. F.:0.943**] (communicated)
175. M V Aishwarya, D P Raykundaliya, Rema S, V H Patel, Neeta D., Prevalence of anemia and epidemiological correlates among school going adolescent boys of Vallabh Vidyanagar (Gujarat), Indian Journal of Community Medicine. [**I. F.:1.661**] (communicated)

Department of Mathematics (2014-15)

176. H. V. Dedania, H. J. Kanani, Some banach algebra properties in the cartesian product of banach algebras, Annals of Functional Analysis, 5 (1), 51-55, (2014). [**I. F.: 0.51**]
177. S. J. Bhatt, H. V. Dedania, V. R. Shah, Fractal dimensional analysis in financial time series, International Journal of Financial Management, 5 (2), 57-62, (2015). [**I. F.:0.409**]
178. A. B. Patel, M. P. Shekhawat, Hypo-EP Operators, To appear, Indian Journal of Pure and Applied Mathematics. [**I. F.: 0.206**] (communicated)
179. S J Bhatt, Non commutative smooth Frechet subalgebras of a C*-algebra defined by first order differential norms, Proc. (Mathematical Sciences) Indian Acad. of Science [**I. F.:0.380**] (communicated)
180. D. J. Karia , Y. M. Parmar, Operators on Locally Hilbert Space. (communicated)
181. D.J. Karia, Y.M. Parmar, Orthogonality Preserving maps on an Inner product Pro-C*-module. (communicated)
182. S. J. Bhatt , P. A. Dabhi, A note on a paper on C*- Segal algebras by J. Kauppi and M. Mathieu, (communicated)
183. P. A. Dabhi , M. K. Pandey, Isometric multipliers of a vector valued Beurling algebra on a discrete semigroup. (communicated)
184. S. J. Bhatt , P. A. Dabhi, Perturbation of direct sum of Hilbert C*- modules induced by a module morphism. (communicated)
185. H. S. Mehta, U. P. Acharya, 2 – Tensor product of graphs, Inter. J. of Math. and Scientific Computing, 4 (1), 21 – 24, (2014).
186. H. S. Mehta, R. D. Mehta, D. R. Patel, Peripheral spectrum for $A \times B$, Math. Japonica. (communicated)
187. A H Hasmani, R. Deszcz, V.G. Khambholja , A.A. Shaikh, Curvature properties of interior black hole metric, (2014). (arXiv:1401.6256 [math.DG]) (communicated)

188. A H Hasmani, A.A. Shaikh, Haradhan Kundu, Classification of semi-Riemannian Spaces using Mathematica. (communicated)
189. A. B. Patel, M. P. Shekhawat, On n-quasinormal operators. (communicated)
190. S J Bhatt, Meetal M Shah, Non commutative second order differential and Lipschitz structure defined by closed symmetric operator. (communicated)
191. P. A. Dabhi, Ali Jabbari, K. H. Azar, Some notes on amenability and weak amenability of Lau product of Banach algebras defined by a Banach algebra morphism, Acta Math. Sinica (English series). (communicated)
192. P. A. Dabhi, Multipliers of perturbed Cartesian product with an application to BSE-property, Periodica Mathematica Hungarica. (communicated)
193. H. S. Mehta, U. P. Acharya, 2 - Cartesian product of special graphs, Inter. J. of Math. and Soft Computing, 4 (1), 139 – 144, (2014).

Department of Pharmaceutical Science (2014-15)

194. Bhavna Patel, Anandkumari Captain, Development and Validation of RP-HPLC method for estimation of telmisartan in bulk and formulation using fluorescence detector, Journal of Biomedical and Pharmaceutical Research, 3 (2), 44-48,(2014). **[I.F.: 2.066]**
195. Bhavna Patel, Anandkumari Captain, Development and Validation of HPTLC method for simultaneous estimation of atorvastatin calcium and aspirin in bulk and dosage form, American Journal of Pharmacy and Health Sciences, 2 (4), 119-129, (2014). **[I.F.: 0.9825]**
196. Bhavna Patel, Shraddha Parmar, Anandkumari Captain, Development and Validation of HPTLC method for simultaneous estimation of aspirin and esomeprazole magnesium in synthetic mixture, International Journal for Pharmaceutical Research Scholars, 3 (1), 236-242, (2014). **[I.F.: 1.0285]**
197. S Roy, B A Patel , S J Parmar, Development & Validation of spectroscopic method for estimation of dabigatran etexilate mesylate in capsule dosage form, International Journal of Pharmacy and Integrated Life Sciences, 2 (10), 61-71,(2014). **[I.F.: 1.9]**

Department of Electronics (2014-15)

198. D. K. Dhruv.A. Nowlckr, B. H. Patel, V. D. Dhamecha, Memory switching characteristics in amorphous ZnIn₂-Se₄ thin films, Surfase Engineering, (2015). **[I.F.:1.51]** (Doi: 10.1179/1743294415Y.0000000001)
199. V S Vaishnav, S G Patel, I N Panchal , Development of ITO thin film sensor for detection of benzene, Sensors and Actuators B: Chemical, 206, 381-388, (2015).**[I.F.: 3.84]**

200. VS Vaishnav, SG Pate I, IN Panchal, Development of Indium tin oxide thin film toluene sensor, *Sensors and Actuators B: Chemical*, 210, 1-5-172, (2015). [I.F.: 3.84]

Department of Physics (2014-15)

201. Deepali A. Kotadia, Urmila H. Patel, Sahaj Gandhi , Saurabh S. Soni, Pd doped SiO₂ nanoparticles: An efficient recyclable catalyst for Suzuki, Heck and Sonogashira reactions , *RSC Advances- An International Journal to Further the Chemical Sciences*, 4, 32826-32833, (2014). [I.F.: 3.708]
202. Patel B. D., Patel U. H. , Shah D. A. , Ab initio and DFT calculations of 2-Amino-1(4-Bromo-phenyl)-5-oxo-4, 5-dihydro-1-H-pyrrole-3-carboxylic acid ethyl ester, *International Journal of Applied Science and Engineering Research*, 2, 368-376, (2014).
203. Patel U.H., Patel B.D., Quantum chemical studies on crystal structure of 1, 1' sulfonyldiimidazole, *International Journal of Applied Science and Engineering Research*, 1, 595-603, (2014).
204. Patel B. D., Patel U. H, Shah D. A., Synthesis and crystal structure determination of 2-Amino-1 (4-Bromo-phenyl)-5-oxo-4, 5-dihydro-1-H-pyrrole-3-carboxylic acid ethyl ester, *International Journal of Applied Science and Engineering Research*, 1, 755-762, (2014).
205. Vishal. N. Pathak, M. R. Pandya , D. B. Shah , H. J. Trivedi , K. D. Patel , V. N. Sridhar, R. P. Singh, Inter comparison of atmospheric correction models - sacrs2, flaash and 6sv using resourcesat-2 awifs data ,*The International Archives of the Photogrammetry -Remote Sensing and Spatial Information Sciences*, 8, 881-884, (2014).
206. Sarath R, Vinodkumar P C., Bose–Einstein condensation in generalized Pöschl–Teller potential, *PRAMANA— Journal of Physics*, 1–13, (2014). [I.F.: 0.720]
207. Devlani N., Kher V., Rai A. K., Masses and electromagnetic transitions of the Bc mesons. *The European Physical Journal A*, 50: 154, 1-7, (2014). [I.F.: 2.421]
208. Patel S., Shah M., Vinodkumar P.C., Mass spectra of four-quark states in the hidden charm sector, *The European Physical Journal A*, 50: 131, 1-9, (2014). [I.F.: 2.421]
209. Vinodkumar M., Limbachiya C., Desai H., Vinodkumar P. C., Electron impact rotationally elastic total cross section for formamide. *Journal of Applied Physics*, 116, 1-10, (2014). [I.F.: 2.185]
210. Vinodkumar M., Limbachiya C., Desai H., Vinodkumar P. C., Electron-impact total cross sections for phosphorous trifluoride. *Physical Review A*, 89, 1-9, (2014). [I.F.: 2.991]
211. Bhatt P., Patel S., Vinodkumar P. C., Medium effects on cc^- states through colour screening. *Proceedings of the DAE Symposium on Nuclear Physics*, 59, 662-663, (2014).
212. Vinodkumar P. C., Heavy flavour hadron spectroscopy: An overview. *PRAMANA— Journal of Physics*, 773–782, (2014). [I.F.: 0.720]

213. Patel S., Bhatnagar S., Vinodkumar P. C., Masses and Decay properties of excited charmonia states. Proceedings of the DAE Symposium on Nuclear Physics, 59, 666-667, (2014).
214. Shah M., Patel B., Vinodkumar P. C. Mass spectra and decay properties of Ds meson in a relativistic Dirac formalism. PHYSICAL REVIEW D 90, 1-11, (2014). **[I.F.: 4.864]**
215. Vinodkumar PC., Shah M., Patel B. Hadronic and Leptonic decay widths of D and Ds Mesons using Dirac formalism, Proceedings of the DAE Symposium on Nuclear Physics, 59, 638-639, (2014).
216. Patel S., Vinodkumar P. C. Spectroscopy of six-quark states as candidates for di-baryon states, Proceedings of the DAE Symposium on Nuclear Physics, 59 , 646-647, (2014).

[B] Books/ Book Chapters published:

Department of Biosciences

1. Rastogi R. P., Madamwar D. and Incharoensakdi A., Multiple defense systems in cyanobacteria in response to solar UV radiation. In: Cyanobacteria: Ecological importance, biotechnological uses and risk management. Nova Publishers, USA. Chapter 6, pp: 125-158. (2015).
2. Rastogi R. P., Sonani R. R. and Madamwar D., The potential of mycosporine-like amino acids as UV-Sunscreens. In: Sunscreen: properties, role in skin cancer prevention and health effects. Nova Publisher, USA. In Press. (2015).

Department of Chemistry

3. Kiran R. Surati, Photochromism and its application, (ISBN: 978-93-81386-09-5) Sardar Patel University Press IST Addition (ISBN: 978-93-81386-09-5).

Department of Computer Science

4. Sajja, P.S., Knowledge representation using fuzzy xml rules in web based expert system for medical diagnosis, in Senthil Kumar AV (Ed.), Fuzzy Expert Systems for Disease Diagnosis, Chapter 6, IGI Global Book Publishing, Hershey, PA, USA (2014).
5. Sajja, P.S, Computer Studies (Standard 10) (as co-author), Gujarat State Board of School Textbooks, India (2014).
6. Smart J V, Computer Studies (Standard 12) (as co-author), Gujarat State Board of School Textbooks, India (2014).

Department of Mathematics

7. A H Hasmani, T.S. Jani and V.R. Shah, Tutorial Workbook: Calculus, ISBN: 978-81-927554-8-9, (2014).
8. A H Hasmani, T.S. Jani and V.R. Shah, Tutorial Workbook: Advanced Engineering Mathematics, ISBN: 978-81-927554-9-6, (2014).
9. A H Hasmani, T.S. Jani, V.R. Shah and V.G. Khambholja, Tutorial Workbook: Linear Algebra & Vector Calculus, ISBN: 978-81-927554-4-1, (2015).