

**VIVEK KUMAR, Ph.D.**

Associate Professor, Food Technology Department  
HBTU, Kanpur-208002

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Dr. Vivek Kumar, graduated from HBTU, Kanpur, in Food Technology in 2000. He has submitted his PhD Thesis in Food Technology from HBTU, Kanpur in 2016. He has worked as lecturer from 2003 to 2006 at FET, RBS College, Agra. He has joined HBTU as Assistant Professor in 2007 and serving continued till date. He has supervised more than 60 B. Tech. and 41 M. Tech. students. He has published many papers in the reputed journals and served as reviewer of several scientific journals. He has attended several STTP/FDP, summer school, workshop and conferences. He has organized several conferences, workshop and faculty development program. He has been working as Coordinator GATE Training from last two years. He has worked as Associate Dean Academic Affairs from Aug 2017 to Sep 2019. He has also worked as member of Admission committee HBTU Kanpur in the session 2017-18 and 2018-19. He has worked as Procurement In charge in TEQIP-II World Bank Project HBTU, Kanpur during 2013 to 2016. He has also nominated by SPFU, Lucknow as Data Auditor for IET, Lucknow in TEQIP-II World Bank Project.

**Research Interest**

- Cereal and Bakery Products
- Processing & Value-added Products of Fruits and Vegetables
- Food Products formulation and Optimization
- Modeling and Kinetics of Food Processes
- Utilization and value addition of food waste

**Courses Offered**

B. Tech.	Food Chemistry Technology of Cereal Pulses and Oilseeds Food Safety and Quality Assurance Innovative Techniques in Food Processing Traditional and Fermented Foods
M. Tech.	Engineering Properties of Foods Food Process Engineering Novel Techniques in Food Processing and Preservation

**Publications****I. Book Chapter**

1. **Vivek Kumar**, H.K. Sharma and Anjali Srivastava (2017) Composition, Properties and Processing of Mushroom. In: Technologies in Food Processing. CRC Press, Taylor & Francis Group. USA
2. **Vivek Kumar**, Harish Kumar Sharma and Navneet Kumar (2021) Engineering Properties of Foods. In: Agro-Processing and Food Engineering: Operational and application aspects, Springer.

3. **Vivek Kumar**, Deepika Umrao and Anjali Srivastava (2022) Functional nanomaterials for food packaging applications. In: Food Packaging-The Smarter Way, Springer
4. **Vivek Kumar**, Deepika Umrao and Priya Bisht (2022) Application of nanosensors in food industry. In: Bio and nano-sensing technologies for food processing and packaging, Royal Society of Chemistry (Under Publication)
5. **Vivek Kumar** and Arunima Singh (2022) Fluorescence spectroscopy for beer quality analysis. In: Food Quality analysis :Application of analytical methods coupled with artificial Intelligence, Elsevier (Under Publication)
6. **Vivek Kumar**, Deepika Umrao and Sumaiya Fatima (2022) Importance of food quality analysis (in relation to food safety and human health and Covid-19 in particular). In: Food Quality analysis :Application of analytical methods coupled with artificial Intelligence, Elsevier (Under Publication)

## II. Scientific Journal Papers

1. Shruti Maheshwari, Vivek Kumar, Geeta Bhjadauria and Abhinandan Mishra (2022) Immunomodulatory potential of phytochemicals and other bioactive compounds of fruits: a review. Food Frontiers, <https://doi.org/10.1002/fft2.129>. (Wiley Publication)
2. Arunima Singh and Vivek Kumar (2022) Nutritional, phytochemical, and antimicrobial attributes of seeds and kernels of different pumpkin cultivars: Food Frontiers,,: Vol 3 (1) 182-193 (Wiley Publication)
3. Suheela Bhat, C. S. Saini, Vivek Kumar, and H. K. Sharma (2021) Spray Drying of Bottle Gourd Juice: Effect of Different Carrier Agents on Physical, Antioxidant Capacity, Reconstitution, and Morphological Properties. ACS Food Science & Technology,,: Vol 1 (2) 282-291.( ACS Publication)
4. Rishika Tewari, Vivek Kumar and H.K. Sharma (2021) Pretreated Indian Gooseberry (*Emblica officinalis*) Segments: Kinetic, Quality and Microstructural Parameters. Journal of The Institution of Engineers (India): Series A, Vol 102 (2) 523-534. (Elsevier, IF: 0.960)
5. Nimisha Tandon, Siddhartha Sachan and Vivek Kumar (2021) Isolation, characterization of fenugreek gum and its effect on quality of chapatti (Indian unleavened flat bread). Materials Today: Proceedings: Vol 43 (2) PP: 2091-2097. (Springer, IF .960)
6. Nimisha Tandon, Siddhartha Sachan and Vivek Kumar (2021) Isolation, characterization of fenugreek gum and its effect on quality of chapatti (Indian unleavened flat bread). Materials Today: Proceedings: Vol 43 (2) PP: 2091-2097. (Springer, IF .960)
7. Arunima Singh and Vivek Kumar (2020) Cultivars Effect on the Physical Characteristics of Pumpkin (*Cucurbita moschata* Duch.) Seeds and Kernels. Journal of The Institution of Engineers (India): Series A, Vol 101 (6) PP: 631-641. (Springer, IF: 0.960)
8. Rishika Tewari, **Vivek Kumar** and HK Sharma (2019) Physical and chemical characteristics of different cultivars of Indian gooseberry (*Emblica officinalis*). Journal of Food Science and Technology. Vol 56 (3): 1641-1648.
9. Anjali Srivastava, **Vivek Kumar** and Vivek Kumar Srivastavs (2019) Effect of Substrate Concentration and pH on Biosurfactant production from Pineapple peel. Journal of Energy Research and Environmental Technology. Vol 6(1): 56-60.
10. Smriti Pandey, **Vivek Kumar** and Anjali Srivastava (2019) Effect of process parameters on yield of biosurfactant by *Bacillus subtilis*. Journal of Agricultural Engineering and Food Technology. Vol 6(4): 268-270.

11. Charu Singh, **Vivek Kumar**, Medha Sharma, Ajit Kumar Singh and Anit Kumar (2019) Study of physicochemical properties of fermented wheat flour (Sheera). *Journal of Agricultural Engineering and Food Technology*. Vol 6(4): 271-274.
12. Anoop Kumar, Sayyad Abdul, Alak Kumar Singh and **Vivek Kumar** (2019) Modeling sorption isotherms of refractive window dried Indian jujube powder. *Journal of Agricultural Engineering and Food Technology*. Vol 6(4): 280-282.
13. **Vivek Kumar**, Anjali Srivastava (2018) The Role of RFID in Agro-Food Sector. *Agricultural Research and Technology*. Vol 14 (4): 1-5
14. Anjali Srivastava, **Vivek Kumar**, Alak K. Singh (2018) Computerized and Electronic Controls in Food Packaging. *Journal of Applied Packaging Research*. Vol 10 (1): 28-45
15. Akshay K Singh, Anjali Srivastava, **Vivek Kumar**, Karunakar Singh (2018) Phytochemicals, Medicinal and Food Applications of Shatavari (*Asparagus racemosus*): An Updated Review. *The Natural Products Journal*. Vol 8 (1): 32-44
16. **Vivek Kumar**, H.K. Sharma and K. Singh (2017) Effect of precooking on drying kinetics of taro (*Colocasia esculenta*) slices and quality of its flours. *Food Bioscience*. Vol 20: 178-186
17. Akshay Kumar Singh, **Vivek Kumar** and K. Singh (2017) Evaluation of antioxidant potential of oregano leaves (*Origanum vulgare L.*) and their effects on oxidative stability of ghee. *Nutrafoods*. Vol 16 (2): 109-119
18. **Vivek Kumar**, HK Sharma, Shweta Mishra (2017) Simulation of spray drying of tomato juice using computational fluid dynamics (CFD). *Cogent Food & Agriculture*. Vol 3 (1): 1-9
19. **Vivek Kumar**, H.K. Sharma and K. Singh (2017) Process optimization for extraction of bioactive compounds from taro (*Colocasia esculenta*), using RSM and ANFIS modeling. *Journal of Food Measurement and Characterization*. Vol 11 (2): 704-718
20. **Vivek Kumar**, H. K. Sharma, K. Singh, Pragati Kaushal, and R. P. Singh (2017) Effect of pre-frying drying on mass transfer kinetics of taro slices during deep fat frying *International Food Research Journal*. Vol 24 (3): 1110-1116
21. Soumya Rathore, Karunakar Singh, **Vivek Kumar** (2016) Millet Grain Processing, Utilization and Its Role in Health Promotion: A Review. *International Journal of Nutrition and Food Sciences*. Vol 5 (5): 318-329
22. **Vivek Kumar**, H.K. Sharma and K. Singh (2016) Mathematical modeling of thin layer microwave drying of taro slices. *Journal of Institution of Engineers (India) Series A*. Vol 97 (1): 53-61
23. **Vivek Kumar**, H.K. Sharma and K. Singh (2015) Physico-chemical, functional and anti-nutritional properties of taro (*Colocasia esculenta*) flour as affected by cooking and drying methods. *African Journal of Food Science* (In Press)
24. **Vivek Kumar**, H. K. Sharma, K. Singh, R. P. Singh (2015) Optimization of process parameters for the production of taro chips using RSM with fuzzy modeling. *Journal of Food Measurement and Characterization*. Vol 9 (3): 400-413
25. **Vivek Kumar**, HK Sharma, Pragati Kaushal and K. Singh (2015) "Optimization of taro-wheat composite flour cake using Taguchi Technique" *Journal of food measurement and characterization*. Vol 9 (1): 35-51
26. **Vivek Kumar**, Rishika Tewari and K. Singh (2015). "Comparative studies of drying methods on yield and composition of the essential oil of *Cymbopogon citrates*" *Journal of essential oil bearing plants*. Vol 18 (3): 744-750
27. Pragati Kuashal, **Vivek Kumar**, HK Sharma (2015) "Utilization of taro (*Colocasia esculenta*): A review" *Journal of Food Science and Technology*. Vol 52 (1): 27-40

28. Sharmishtha mishra, **Vivek kumar** and HK Sharma (2012). “Preparation and modeling of potato powder by thin layer microwave drying” Potato Journal 39 (2): 145-154.
29. Pragati Kuashal, **Vivek Kumar**, HK Sharma (2012) “Comparative study of physicochemical, functional, antinutritional and pasting properties of taro (*Colocasia esculenta*), rice (*Oryza sativa*) flour, pigeonpea (*Cajanus cajan*) flour and their blends” LWT-Food Science and Technology Vol 48 (1): 59-68
30. Yogesh Kumar Mahour, **Vivek Kumar** and Apoorva Behari Lal (2007). “Studies on Optimization of Rasogolla making from the blends of Cow milk and Groundnut milk” J. Beverage and Food World Vol 34(8): 42-45.

### Sponsored Projects

1. Development and characterization of nanoemulsion based sparkling wine in hard-shots pellets – Ongoing (as Co-PI)  
Sponsoring authority: Ministry of Human Resource and Development, Govt. of India  
Project cost: Rs. 17.23 lakh.
2. Development of functional fat spread to reduce the risk of coronary heart diseases – Ongoing (as Co-PI)  
Sponsoring authority: Ministry of Human Resource and Development, Govt. of India  
Project cost: Rs. 18.03 lakh.
3. Development of symbiotic beverage from underutilized Indian fruits to alleviate oxidative stress and inflammation in gut – Ongoing (as Co-PI)  
Sponsoring authority: Ministry of Human Resource and Development, Govt. of India  
Project cost: Rs. 18.96 lakh.
4. Preparation of bioplastics from potato industry waste reinforced with ESP and CSP – Ongoing (as Co-PI)  
Sponsoring authority: Ministry of Human Resource and Development, Govt. of India  
Project cost: Rs. 19.42 lakh.

### My Students (2017-2022)

Number of Ph.D. enrolled: 04 (2017-2022)

Number of M. Tech. Thesis Awarded: 55 (2007-2022)

Degree	Name	Project Title	Status
Ph.D.	Rishika Tewari	Studies on drying kinetics properties and value added products of Indian gooseberry ( <i>Emblica officinalis</i> )	Permission granted for submission
	Arunima Singh	Studies on the effect of processing conditions on quality of pumkin seed oil	Permission granted for submission
	Neelam Sachan	Effect of processing conditions on enzyme activity, functional properties and microstructure of amla fruit	In-Process
	Anjali Srivastava	Effect of different methods of blanching and drying on kinetics and quality of lotus rhizome slices	In-Process
M.	Ms. Jyoti Singh	Enhancement of the nutritional properties of tomato pomace by solid state fermentation	Completed-

<b>Tech.</b>	Mr. Munesh Kumar	Effect of aloe vera gel based edible coating on shelf-life of grapes	2017	
	Alkshendra Pratap Singh	Physicochemical and textural properties of mango barfi as prepared by natural sweetener (Honey)	Completed-2018	
	Smriti Pandey	Production and characterization of bio surfactant from fruit industry waste	Completed-2019	
	Medha Sharma	Application of orange fruit peel powder for the development of micro coating on whole orange		
	Shreya Singh	Development of oleogel and oleogel based emulsion for food application		
	Charu Singh	Development of Microfluidized Fermented Wheat Flour and its Application in the Preparation of Cookies		
	Lokesh Kumar Jaiswal	Production of high quality casein from Indian buttermilk		Completed-2020
	Nimisha Tandon	Isolation, characterization of fenugreek gum and its incorporation in chapatti (Indian unleavened flat bread)		
	Ratnika Srivastava	Effect of different blanching methods on quality of lotus rhizome slices		
	Kushagra Srivastava	Evaluation of different agro-waste materials for the production and quality of <i>C.militaris</i>		
	Pushpesh Verma	Effect of ultrasonic treatment on quality of amla powder	Completed-2021	
	Kajal	Effect of particle size of fillers on the quality of starch bio-film		
	Saumya	Refining of rancid ghee obtained as a by-product during processing of whey powder		
	Aradhya Tiwari	Effect of processing methods on the antioxidant and phytochemical properties of different varieties of cinnamon		
	Kajol	Study on the development of amla yoghurt powder		
	Pratibha	Development of herbal kwath infusion bag: optimization and infusion kinetics		
	Mohini Gupta	Effect of aloe vera gel based edible coating on white button mushroom		Ongoing
	Rishika Tyagi	Formulation of low GI diabetic flour and development of carbohydrate in-vitro digestion model		
	Priyank Chauhan	Process standardization for development of instant dalia premix and its quality evaluation		
	Akanksha Singh	Effect of blanching methods on quality of lotus rhizome slices		

## **Awards and Recognition**

1. One patent published on EXTRUDED FRIED SNACK FROM TARO Patent Office, New Delhi on 04 July, 2021: pp-25 (Application number: 201711039096)
2. Awarded Agricultural Engineering Division Price 2017 of the Institution of Engineers (India) for the paper titled “Mathematical modelling of thin layer microwave drying of taro slices” published in the journal of the Institution of Engineers (India): Series A, Vol 97, 2016
3. Got Vibha Science Teachers Excellence Award-2018 by Vijnana Bharati Kanpur Prant on Sep 05, 2018
4. Got Silver Medal Certificate in e-BOOTATHON 02 for the development of Two virtual lab experiments entitled “Determination of free fatty acid content in fats and oils” and “Detection and estimation of oxidative rancidity in fats/oils” sponsored by TEQIP-III in association with IIT Kanpur, Rajkiya Engineering College Banda and AKTU Lucknow organized by Bundelkhand Institute of Engineering and Technology during Aug 18-24, 2020.
5. Got Gold Medal Certificate in e-BOOTATHON 04 for the development of Three virtual lab experiments entitled “Determination of heat stability of vitamin C”, “Non-enzymatic browning reactions and its determination” and “Analysis of water for potable and food purposes sponsored by TEQIP-III in association with IIT Kanpur, Rajkiya Engineering College Banda and AKTU Lucknow organized by DBATU, Lonere, Maharashtra during Sep 10-16, 2020.

## **Administrative Responsibilities**

1. Working as Coordinator, GATE Training, HBTU, Kanpur since 2017.
2. Acted as Associate Dean Academic Affairs, HBTU Kanpur during Aug 2017 to Sep 2019.
3. Acted as member Admission Committee HBTU, Kanpur during 2017-18 and 2018-19.
4. Acted as Nodal Officer HBTU, Kanpur for PMSSS admission during 2017 to 2019.
5. Acted as Procurement Incharge, TEQIP-II, World Bank Project, HBTI Kanpur during Sep 2013 to July 2016.
6. SPFU nominated as Data Auditor for IET Lucknow in TEQIP-II World Bank Project during 2012 to 2016.
7. Member Board of Studies for Food Technology discipline at HBTI Kanpur.
8. Managing Training & Placement of undergraduate and postgraduate Food Technology students of the Department.
9. P.G. Coordinator in the Department of Biochemical Engineering & Food Technology for Food Technology discipline.
10. Faculty advisor of Association of Biochemical Engineers & Food Technologists HBTU Kanpur

11. Managing Educational Tour of final year undergraduate Food Technology students of the Department.
12. Examiner in Food Technology Theory and Practical papers of U.P. Technical University, Lucknow U.P.
13. Examiner in Food Technology Theory and Practical papers of C.S.J.M. University, Kanpur U.P.
14. Examiner in Food Technology Theory papers at undergraduate level of Bundelkhand University, Jhansi, U.P.
15. Examiner in Food Biotechnology Theory papers at undergraduate level of Integral University, Lucknow, U.P

### **Membership of Scientific Bodies/Societies**

1. Life Member: Association of Food Scientists and Technologists (India).
2. Life Member: Association of Biochemical Engineers & Food Technologists.
3. Life Member: International Harcourtian Alumni Association.
4. Member: Indian society for Technical Education (ISTE).

### **Proceedings/Abstracts in Conference/Workshop**

1. Lokesh Kumar Jaiswal and **Vivek Kumar** (2020) Indian Buttermilk Application and their Processed Products-A Review. Poster presented in International conference on Food Processing, Nutrition and Fortification with Emphasis on Vitamin D held on March 5-6, 2020 at Jamia Hamdard, New Delhi, India.
2. Ratnika Srivastava and **Vivek Kumar** (2020) Lotus Rhizomes: Composition, nutritional value, therapeutic role and product development for value addition. Full paper published in International Conference on Innovation and Opportunities in Chemical Engineering for Sustainable Environment and Energy (IOCSE-2020) held on Feb 27-29, 2020 at RBS Engg. Technical Campus.
3. Lokesh Kumar Jaiswal and **Vivek Kumar** (2020) Production of High Quality Casein from Indian Buttermilk using Organic Solvents. Full paper published in International Conference on Innovation and Opportunities in Chemical Engineering for Sustainable Environment and Energy (IOCSE-2020) held on Feb 27-29, 2020 at RBS Engg. Technical Campus.
4. Kushagra Srivastava and **Vivek Kumar** (2020) Utilization of Different Agro-Waste Materials for the Production of *C.militaris*. Full paper published in International Conference on Innovation and Opportunities in Chemical Engineering for Sustainable Environment and Energy (IOCSE-2020) held on Feb 27-29, 2020 at RBS Engg. Technical Campus.
5. Nimisha Tondon, Siddhartha Sachan and **Vivek Kumar** (2020) Application of Plant based Galactomannans and Enzymes on quality of Chapati: A Review. Full paper published in International Conference on Innovation and Opportunities in Chemical Engineering for Sustainable Environment and Energy (IOCSE-2020) held on Feb 27-29, 2020 at RBS Engg. Technical Campus.
6. **Vivek Kumar** (2019) Spray drying of bottle gourd juice: Effect of different carrier agents on physical, functional, reconstititional and morphological properties. Oral presentation in 10th Asia Pacific Drying Conference (ADC)-International Conference held on Dec 14-17, 2019 at NIT, Rourkela, India.
7. **Vivek Kumar** (2019) Effect of drying methods on kinetics and physicochemical properties of dried bael pulp powder. Paper presented in 10th Asia Pacific Drying

- Conference (ADC)-International Conference held on Dec 14-17, 2019 at NIT, Rourkela, India.
8. **Vivek Kumar** (2019) Effect of cooking treatments and microwave drying on physico-chemical, functional and anti-nutritional properties of taro (*Colocasia esculenta*) flour. Poster presented in 10th Asia Pacific Drying Conference (ADC)-International Conference held on Dec 14-17, 2019 at NIT, Rourkela, India.
  9. Medha Sharma, Anit Kumar, Charu Singh and **Vivek Kumar** (2019) Effect of different drying methods on physicochemical properties of orange (*Citrus raculata*) peel powder. Full paper published in International conference on Recent trends in Agriculture, Food Science, Forestry, Horticulture, Aquaculture, Animal Sciences, Biodiversity and Climate change (AFHABC-2019) held on Sep 21, 2019 at New Delhi. pp: 1-4
  10. Shreya Singh, **Vivek Kumar**, Ashwani Kumar and Ajit K. Singh (2019) Development of rice bran oil and flaxseed oil based oleogels using beeswax for food application. Full paper published in International conference on Recent trends in Agriculture, Food Science, Forestry, Horticulture, Aquaculture, Animal Sciences, Biodiversity and Climate change (AFHABC-2019) held on Sep 21, 2019 at New Delhi. pp: 19-22.
  11. Anoop Kumar, Sayyad Abdul, Alak Kumar Singh and **Vivek Kumar** (2019) Evaluation of physicochemical properties of refractive window dried Indian jujube pulp. Full paper published in International conference on Recent trends in Agriculture, Food Science, Forestry, Horticulture, Aquaculture, Animal Sciences, Biodiversity and Climate change (AFHABC-2019) held on Sep 21, 2019 at New Delhi. pp: 32-35
  12. Anjali Srivastava, **Vivek Kumar** and A. B. Lal (2019) Effect of Cooking conditions of Rhizomes on quality characteristics of Turmeric (*Curcuma Longa*) Powder. Paper presented in National Conference on Advances in Chemistry, Food Technology & Environmental Sciences towards Sustainable Development organized by Raja Balwant Singh Engineering Technical Campus, Bichpuri, Agra, India during Mar 08-09, 2019.
  13. Anjali Srivastava, **Vivek Kumar** and Smriti Pandey,(2019) Effect of drying methods on drying kinetics of beal pulp and quality of its powder. Paper presented in International Conference on Technological innovations for integration of food and health organized by Department of Food Technology, Tezpur University, Assam, India during Feb 14-16, 2019
  14. Anjali Srivastava, **Vivek Kumar** and Smriti Pandey(2019) Recent advances in food technology for consumer health benefits. Poster presented in International Conference on Technological innovations for integration of food and health organized by Department of Food Technology, Tezpur University, Assam, India during Feb 14-16, 2019
  15. Anjali Srivastava, **Vivek Kumar** and Smriti Pandey (2018) Effect of carbon source on microbial production of biosurfactant from waste frying oil. Paper presented in International Conference on Value addition in oilseeds, oils & derivatives through innovative technologies organized by Department of Chemical Engineering, IIT-BHU, Varanasi, India during Dec 22-23, 2018.
  16. Arunima Singh and **Vivek Kumar** (2018) Moisture dependent physical properties of different varieties of pumpkin seed and its kernel. Paper presented in International Conference on Value addition in oilseeds, oils & derivatives through innovative technologies organized by Department of Chemical Engineering, IIT-BHU, Varanasi, India during Dec 22-23, 2018.
  17. Alakshendra Pratap Singh and **Vivek Kumar** (2018) Physico-chemical and textural properties of mango burfi as prepared by natural sweetener (Honey). Paper presented in International Conference on Food and Nutrition (ICFA-2018) organized by Institute for Scientific and Engineering Research, Jodhpur on Oct 06, 2018.

18. Arunima Singh and **Vivek Kumar (2018)** Quality of cake made with wheat-banana flour blends. Paper presented in International Conference on Innovative technologies towards energy, environment, food & sustainable agriculture organized by RBS College Agra during Feb 26-28, 2018
19. Rishika Tewari, **Vivek Kumar**, H. K Sharma (2018) Engineering Properties of different varieties of Amla (*Emblica officinalis*). Paper presented in International Conference on Innovative technologies towards energy, environment, food & sustainable agriculture organized by RBS College Agra during Feb 26-28, 2018.
20. Anjali Srivastava and **Vivek Kumar (2018)** Effect of Spirulina incorporation on the quality characteristics of Noodles. Paper presented in International Conference on Innovative technologies towards energy, environment, food & sustainable agriculture organized by RBS College Agra during Feb 26-28, 2018.
21. Akshay Kumar Singh, K. Singh, **Vivek Kumar (2014)** Antioxidant properties of pomegranate peel. Paper presented in International Conference on New approaches in food security and value addition: Technological and Genetic options (NAFSVA-2014) organized by RBS College Agra during Feb 17-19, 2014.
22. **Vivek Kumar**, H.K. Sharma, K.Singh and Shweta Mishra (2014) Optimization of process parameters for the production of Taro chips using RSM. Paper presented in International Conference on New approaches in food security and value addition: Technological and Genetic options (NAFSVA-2014) organized by RBS College Agra during Feb 17-19, 2014.
23. **Vivek Kumar**, H.K. Sharma, K.Singh and Rishika Tewari (2014) Application of Taguchi Method to optimize Taro-Wheat flour composite cake. Paper presented in International Conference on New approaches in food security and value addition: Technological and Genetic options (NAFSVA-2014) organized by RBS College Agra during Feb 17-19, 2014.
24. Sonali Sinha, Karunakar Singh and **Vivek Kumar (2013)** Effect of Processing Treatment on the Quality of Ground Turmeric. Poster presented in a national seminar on Advances in Bioprocesses for Environmental Safty and Nutritional Security (Genesis-2013) organized by HBTI, Kanpur (India) during March 2-3, 2013
25. Karunakar singh , **Vivek Kumar** and Panday Banerjee (2013) Seabukthorn : A Fruit with Potential to Eradicate Micronutrient Deficiency. Paper presented in a national seminar on Advances in Bioprocesses for Environmental Safty and Nutritional Security (Genesis-2013) organized by HBTI, Kanpur (India) during March 2-3, 2013
26. Shubhi Rizvi, **Vivek Kumar** and Karunakar Singh (2013) Studied on Preservation of Bottle Gourd Juice” paper presented in a national seminar on Advances in Bioprocesses for Environmental Safty and Nutritional Security (Genesis-2013) organized by HBTI, Kanpur (India) during March 2-3, 2013
27. Shipra Gupta, Kushal Kumar and **Vivek Kumar (2011)** Future Trends of Fermented Foods. Poster presented in a National Seminar on Recent Advances in the Development of Fermented Foods organized by the Centre of Food Science and Technology, Institute of Agricultural Sciences,BHU Varanasi (India) during April 08-09,2011 (Abstract No. CCS-32, P.221 in abstract Volume)
28. Santosh Yadav and **Vivek Kumar (2011)** Studies on quality of Papaya Yoghurt and Plain Yoghurt Prepared from Goat Milk during Storage. Poster presented in a National Seminar on Recent Advances in the Development of Fermented Foods organized by the Centre of Food Science and Technology, Institute of Agricultural Sciences,BHU Varanasi (India) during April 08-09,2011 (Abstract No. FD-15, P.151 in abstract Volume)

29. Namrata Arya and **Vivek Kumar** (2011) Advances in Osmotic Dehydration of Foods” Poster presented in a national Seminar on Challenges and Prospects in Bio-Energy & Food Security” (GENESIS-2011) organized by Department of Biochemical Engineering and Food Technology, HBTI Kanpur (India) during March 09,2011. (Abstract No. FSPP-19, P.43 in Abstract Volume.)
30. Shipra Gupta and **Vivek Kumar** (2011) Application of Genetic Manipulation in Food Industry. Poster presented in a national Seminar on Challenges and Prospects in Bio-Energy & Food Security (GENESIS-2011) organized by Department of Biochemical Engineering and Food Technology, HBTI Kanpur (India) during March 09, 2011. (Abstract No. FSPP-19, P.43 in Abstract Volume.)
31. Abhishek Singh and **Vivek Kumar** (2011) Application of Nanotechnology in Food Industry. Poster presented in a national Conference on Newer Advances in Food Science and Technology (NAFSAT-2011), organized by Faculty of Engineering and Technology, RBS College, Bichpuri, Agra (India) during March 05-06, 2011. (Abstract No. PS-19, P.45 in Abstract Volume.)
32. Shipra Gupta, Namrata Arya and **Vivek Kumar** (2011) Application of Genetic Engineering in Food Production. Poster presented in a national Conference on Newer Advances in Food Science and Technology (NAFSAT-2011), held at Faculty of Engineering and Technology, RBS College, Bichpuri, Agra (India) during March 05-06, 2011. (Abstract No. PS-20, P.45 in Abstract Volume.)
33. Santosh Kumar Yadav and **Vivek Kumar** (2011) Application of Biotechnological tools in Food Diagnostic and Allergen Testing. Paper presented in a national Conference on Newer Advances in Food Science and Technology (NAFSAT-2011), organized by Faculty of Engineering and Technology, RBS College, Bichpuri, Agra (India) during March 05-06, 2011. (Abstract No. QS-06,P.35 in Abstract Volume.)
34. **Vivek Kumar** and Ravi Kumar (2011) Comparative studies on the Drying Characteristics of Lemongrass and Yield of Essential Oil. Research paper presented in a national Conference on Newer Advances in Food Science and Technology (NAFSAT-2011) organized by Faculty of Engineering and Technology, RBS College, Bichpuri, Agra (India) during March 05-06,2011. (Abstract No. NR-11,P.27 in Abstract Volume.)
35. **Vivek Kumar** and Rita Singh (2011) Preparation and Optimization of Suzi Mathri using RSM. Paper presented in a national Conference on Newer Advances in Food Science and Technology (NAFSAT-2011) organized by Faculty of Engineering and Technology, RBS College, Bichpuri, Agra (India) during March 05-06, 2011. (Abstract No. PP-09, P.9 in Abstract Volume.)
36. **Vivek Kumar** and Atul Katiyar (2009) Genetically modified plants for food production. Paper presented in a national symposium on Recent Technological Developments in Bioprocess & Food Processing Industries (Genesis-2009) organized by HBTI, Kanpur (India) during Feb14-15, 2009.
37. **Vivek Kumar** and Kapil Kumar Pandey (2009) Applications of Fuzzy modeling in food industry. paper presented in a national symposium on Recent Technological Developments in Bioprocess & Food Processing Industries (Genesis-2009) organized by HBTI, Kanpur (India) during Feb14-15, 2009.
38. Alok Mani Misra, **Vivek Kumar**, Alak Kumar Singh and Karunakar Singh (2009) Effect of Hot air oven and Dehumidified air drying on the yield and quality of Essential oil of Tulsi(*Ocimum Sanctum*) leaves. Paper presented in a national symposium on Recent Technological Developments in Bioprocess & Food Processing Industries ( Genesis-2009) organized by HBTI, Kanpur (India) during Feb14-15, 2009.

39. Pinki Saini and **Vivek Kumar** (2009) Immobilized Enzyme Technology for Food Applications. Paper presented in a national conference on Future of Food Biotechnology in India held at NIT Durgapur (India) during Jan 08-09, 2009
40. Pinki Saini and **Vivek Kumar** (2009) Concept of Functional foods. Paper presented in a national conference on Future of Food Biotechnology in India held at NIT Durgapur (India) during Jan 08-09, 2009
41. **Vivek Kumar** and Aditya Pratap Singh (2006) Effect of Microwave Treatment on dehydration of Garlic” poster presented in a National Conference on Scope, Opportunities & Challenges for Women Entrepreneurs in the Food Processing Industry, held at Institute of Food Technology Bundelkhand University, Jhansi (India) during March.26-27, 2006 (Abstract No. FVP-3, pp.140-141 in Abstract Volume).

### **Invited Lectures**

1. Delivered lecture on “Innovations in Indian Food Industry (Online)” in FDP on Scope of Chemistry in Industries during 17-24 June, 2020 jointly organized by ACT & SR Institute of Management, Lucknow.
2. Delivered lecture on “Viral inactivation in foods by traditional & novel processing Technologies (Online)” in National seminar on Chemistry of COVID-19 and its control on 6 June, 2020 organized by Dayanand Girls PG College, Kanpur.
3. Delivered lecture on “Novel opportunities in development of functional foods as immunity boosters (Online)” in Workshop on Covid-19 & its Issues on 29 May, 2020 by Jointly organized by SRIMT & ACT.
4. Delivered lecture on “Challenges & opportunities in new food product development (Online)” in National Webinar on Novel approaches to overcome impact of current pandemic scenario on food sector on 21 May, 2020 organized by IET, Bundelkhand University, Jhansi.
5. Delivered lecture on “Non-thermal processing of fruits and vegetables & their products” in National Webinar on National Training on Enterprises Development using Value addition of Vegetables on 20 Sep, 2019 organized by CSA University of Agriculture & Technology, Kanpur.
6. Delivered lecture on “Novel techniques to improve bioavailability of nutraceuticals/bioactive compounds” in FDP on Recent advancement in Food Processing and Preservation during 26-31 Aug, 2019 organized by HBTU, Kanpur.
7. Delivered lecture on “Encapsulation of phytochemicals, enzymes, and probiotics for fruit juice applications” in National Training on Recent Advances in Functional and Nutraceuticals for Future Foods during 8 to 28 July, 2019 organized by CSA University of Agriculture and Technology, Kanpur.
8. Delivered lecture on “Interaction of phenolic compounds on dough properties and quality of bread” in National Training on Recent Advances in Functional and Nutraceuticals for Future Foods during 8 to 28 July, 2019 organized by CSA University of Agriculture and Technology, Kanpur.
9. Delivered lecture on “Food Safety and Quality Assurance in Vegetables and Processed Food Products” in Training Programme on Processing and Preservation of Food Commodities during 21 to 22 June, 2019 organized by CSA University of Agriculture and Technology, Kanpur
10. Delivered lecture on “Regulation and standards in food safety and quality assurance” in Training Programme on Recent Advances in Post Harvest Processing of Pulses and Vegetables organized by CSA University of Agriculture and Technology, Kanpur

11. Delivered lecture on “Newer trends and Innovations in Indian Bakery Industry” in Advances in Chemistry, Food Technology & Environmental Sciences towards Sustainable Development during March 08, 2019 organized by RBS Engineering Technical Campus, Bichpuri, Agra.
12. Delivered lecture on “Biscuit Industry” in MSME Training organized by MSME, Kanpur on Feb 21, 2019.
13. Delivered lecture on “Chemistry of Protein, Vitamins & Minerals and Food Additives” in GATE Training Programme during Jan 25 & 27, 2019
14. Delivered lecture on “Chemistry of Water, Carbohydrates and Fats & Lipids” in GATE Training Programme during Jan 05-06, 2019
15. Delivered lecture on “Cereal Processing and Products” in GATE Training Programme during Dec 21-22, 2018.
16. Delivered lecture on “Effect of Food Processing on Nutrition and Food Contamination” in Training of newly recruited Food Safety Officers on May 17, 2017 at DDU, SIRD, Lucknow.
17. Delivered lecture on “Food Preservation Techniques: Pickling, Curing, Drying and Smoking” in Training of newly recruited Food Safety Officers on May 17, 2017 at DDU, SIRD, Lucknow.
18. Delivered lecture on “Special Establishment Inspection-Beverage Industry” in Training of newly recruited Food Safety Officers on May 07, 2017 at DDU, SIRD, Lucknow.
19. Delivered lecture on “General inspection procedure, Food Regulatory enforcement and compliance through inspection” in Training of newly recruited Food Safety Officers on May 07, 2017 at DDU, SIRD, Lucknow
20. Delivered lecture on “Inspection of Food Establishment, Manufacturing Units-Oil Processing” in Training of newly recruited Food Safety Officers on May 07, 2017 at DDU, SIRD, Lucknow.
21. Delivered lecture on “Introduction of Food Processing and Technology: Condiments Processing, Grain Milling and Tea Processing” in Training of newly recruited Food Safety Officers on April 14, 2017 at DDU, SIRD, Lucknow.
22. Delivered lecture on “Emerging issues in Food Processing: Irradiated Foods” in Training of newly recruited Food Safety Officers on April 13, 2017 at DDU, SIRD, Lucknow.
23. Delivered lecture on “Emerging issues in Food Processing: Freeze dried foods” in Training of newly recruited Food Safety Officers on April 13, 2017 at DDU, SIRD, Lucknow.
24. Delivered lecture on “Advances in Irradiation Technology of Foods” in FDP on “Emerging Trends in Food and Bioprocess Industries during Feb 06- 11, 2017 by HBTU, Kanpur
25. Delivered lecture on “Emerging issues in Food Processing: Freeze dried foods” in Training of newly recruited Food Safety Officers on Feb 25, 2016 at DDU, SIRD, Lucknow.
26. Delivered lecture on “Emerging issues in Food Processing: Irradiated Foods” in Training of newly recruited Food Safety Officers on Feb 25, 2016 at DDU, SIRD, Lucknow.
27. Delivered lecture on “Emerging issues in Food Processing: Freeze dried foods” in Training of newly recruited Food Safety Officers on Dec 10, 2015 at DDU, SIRD, Lucknow.

28. Delivered lecture on “Emerging issues in Food Processing: Irradiated Foods” in Training of newly recruited Food Safety Officers on Dec 10, 2015 at DDU, SIRD, Lucknow.
29. Delivered lecture on “Advances of enzymes in Food Industry” in FDP on “Advances in enzyme production & their industrial application” during Dec 19- 24, 2013 by HBTU, Kanpur.

### **Co-curricular Activities**

1. Attended One week Online ATAL FDP on Development and applications of Sensors in Modern life organized by NIT Arunachal Pradesh during 25 -29 Oct 2021
2. Attended One week Online ATAL FDP on Advances in food and value addition of grains organized by Indian Institute of Food Processing Technology during 23 -27 Aug 2021
3. Attended Two week Online FDP on Digital Tools for Writing, Authoring and Reviewing Manuscripts organized by Electronics & ICT Academy, NIT Patna during 12 -23 July 2021
4. Attended One week Online ATAL FDP on Non-Thermal Processing of Food Products organized by College of Food Processing Technology and BioEnergy, Anand during 29 June-03 July 2021
5. Attended Online International workshop on Creating interactive E-assessment Tools organized by Universal Teachers Academy, Puducherry during 14 -18 June 2021
6. Attended Online International workshop on Creating interactive E-resources & Gamification organized by Universal Teachers Academy, Puducherry during 17 -21 May 2021
7. Attended Two week Online FDP on ICT Tools for Teaching Learning Process and Institute organized by Electronics & ICT Academy, NIT Patna during 10 - 21 Aug 2020
8. Attended Online FDP on Moodle Learning Management System organized by Dr. Ram Manohar Lohia Avadh University during 10 -14 July 2020
9. Attended Online STTP on “Data Analysis with MS Excel” organized by RSRI Society, Tamil Nadu during 29 June – 04 July 2020
10. Attended Online STTP on “Emerging Trends in Research Methods” organized by RSRI Society, Tamil Nadu during 8-13 June 2020
11. Attended Online Workshop on “Creation of interactive E-content” organized by UTA, Maharashtra during 4-8 June 2020
12. Attended Online One week course on “World Food Safety Week-2020” organized by AFST(I), Kakinada Chapter, & Perkin Elmer during 1-7 June 2020
13. Attended Online STTP on “Statistical Analysis in SPSS Software” organized by RSRI Society, Tamil Nadu during 1-6 June 2020
14. Attended Online Webinar Series on “Innovative Agro-Food Processing Technologies For Entrepreneurship Development” organized by Anand Agricultural University, Anand, Gujarat during 30 May -04 June 2020
15. Attended Online Summer School on “Recent Advances on Microbiological Bioinoculants for Improvement of Agricultural Sustainability” organized by SAGE University, Bhopal, during 26 May -01 June 2020
16. Attended Online FDP on “MOODLE: Learning Management System” organized by AMU, Aligarh during 27-31 May 2020
17. Organized National Webinar on “Impact of COVID-19 Pandemic on Food Safety & Future Product Development” on May 15, 2020.

18. Attended Two week Online certificate course on “Digital transformation in Teaching Learning Process” through SWAYAM during 06-22, April, 2020
19. Attended FDP on “Expanding horizon of bioprocesses” organized by TEQIP-III, HBTU, Kanpur during 10-15, Feb, 2020
20. Attended One Week Short Term Training Programme (STTP) on “Data Analysis and SPSS Software” under TEQIP-III World Bank at HBTU, Kanpur (UP) during 21- 25 Oct, 2019.
21. Organized World Food Day, 2019 Symposium on “Healthy diets for zero hunger world” on Oct 16, 2019.
22. Organized Two days Workshop on “Rapid detection of Food adulteration” under TEQIP-III World Bank at HBTU, Kanpur during 30 Sep - 01 Oct, 2019.
23. Organized one week Faculty Development Program (FDP) on “Recent advancement in food processing and preservation” under TEQIP-III World Bank at HBTU, Kanpur during 26-31 August, 2019.
24. Organized one week Faculty Development Program (FDP) on “Recent Development on Food Processing and Packaging” under TEQIP-III World Bank at HBTU, Kanpur during 24- 29 September, 2018.
25. Attended Faculty Development Programme (FDP) on “Mathematical modeling and research methodology organized by Mathematics Department under TEQIP-III World Bank at HBTU, Kanpur (UP) during 08- 12 Oct, 2018.
26. Organized two weeks Summer Training Programme by Training and Placement Cell on “Introduction to Core Java, web and Android Studio” under TEQIP-III World Bank at HBTU, Kanpur (UP) during 09- 21 July, 2018.
27. Attended Summer Training Program on “Active learning for senior faculty” organized by Knowledge Incubation for TEQIP, World Bank at IIT, Kanpur during 11-15, June, 2018.
28. Attended Workshop on “Academic process for the implementation of outcome based education (OBE)” organized by HBTU, Kanpur in Collaboration with Thiagarajar College of Engineering, Madurai under the twinning arrangement of TEQIP-III World Bank at HBTU, Kanpur during 19-23, Feb, 2018.
29. Attended Workshop on “Management Capacity Enhancement Programme Incompliance with NBA and NAAC Accreditation” organized by HBTU, Kanpur in Collaboration with ESCI Hyderabad under TEQIP-II World Bank at HBTI, Kanpur during 29-31 March, 2017.
30. Attended Workshop on “Effective Pedagogy for Engineering Faculties” organized by HBTU, Kanpur in Collaboration with ESCI Hyderabad under TEQIP-II World Bank at HBTI, Kanpur during 26-28 March, 2017.
31. Attended Workshop on “Energy Conservation and Energy Audit in Academic Institutions” organized by HBTU, Kanpur in Collaboration with ESCI Hyderabad under TEQIP-II World Bank at HBTI, Kanpur during 07-09 March, 2017.
32. Attended Faculty Development Programme (FDP) on “Emmerging Trends in Food and Bioprocess Industries by Biochemical Engineering and Food Technology Department under TEQIP-II World Bank at HBTI, Kanpur (UP) during 06- 11 Feb, 2017.
33. Attended Faculty Development Programme (FDP) on “Entrepreneurship Development” jointly organized by SPFU, Lucknow and IED (UP) under TEQIP-II World Bank at Lucknow (UP) during 05- 09 Dec, 2016.
34. Attended Workshop on “Occupational Health and Safety Management Practices” organized by HBTU, Kanpur in Collaboration with ESCI Hyderabad under TEQIP-II World Bank at HBTI, Kanpur during 03-05 Oct, 2016.

35. Organized Three days workshop on “Intellectual Property Rights (IPR) and Patenting under TEQIP-II World Bank at HBTI, Kanpur (UP) during 27- 29 Aug, 2016.
36. Attended National Workshop on “Outcome based Education and NBA Accreditation” organized by SPFU, Lucknow in Collaboration with ESCI Hyderabad under TEQIP-II World Bank at Lucknow during 01-03 Jul, 2016.
37. Attended Faculty Development Programme (FDP) on “Advances in Enzymes Production & their Industrial Application” organized by Biochemical Engineering and Food Technology Department under TEQIP-II World Bank at HBTI, Kanpur (UP) during 19-24 Dec, 2013.
38. Attended Faculty Development Programme (FDP) on “Modeling, Simulation and Analysis of Engineering Systems” organized by Computer Science & Engineering Department under TEQIP-II World Bank at HBTI, Kanpur (UP) during 25- 30 Oct, 2013.
39. Attended Faculty Development Programme (FDP) on “Curriculum Development and Evaluation Methods in Technical Education” jointly organized by Plastic Technology Department and Mechanical Engineering Department under TEQIP-II World Bank at HBTI, Kanpur (UP) during 01- 06 July, 2013.
40. Attended Short Term Course (STC) on “Soft Computing in Process and Product Optimization (SCPPO-2012)” organized by Department of Food Technology, SLIET Longowal, Sangrur (Panjab) during 06-10 Feb, 2012.
41. Attended Faculty Development Programme (FDP) on “Advances in Bioprocess and Food Processing Technologies” organized by Networking Cell, TEQIP. World Bank at HBTI, Kanpur (UP) during 09- 15 Feb, 2009.
42. Attended Faculty Development Programme (FDP) on “Modern Analytical Techniques for Research and Industry” organized by Networking Cell, TEQIP. World Bank at HBTI, Kanpur (UP) during 10- 14 Nov, 2008.
43. Attended Staff Development Programme on “Modern Analytical Techniques and Certification Systems in Food in the Era of Liberalization and Globalization” organized by Department of Food Technology, SLIET Longowal, Sangrur (Panjab) during 09-15 June, 2008.
44. Attended Refresher course on “Biotechnological Approaches for Chemical Process Industries” organized by Networking Cell, TEQIP. World Bank at HBTI, Kanpur (UP) during 11- 15 May, 2007.
45. Attended Refresher course on “Applied Mathematical Techniques for Chemical Sciences” organized by Networking Cell, TEQIP, World Bank at HBTI, Kanpur.(UP) during 11- 15 April,2007.
46. Attended Staff Development Programme on “Application of Biotech Engineering in Food Processing” organized by Department of Process and Food Engineering, College of Technology, G.B. Pant University of Agriculture and Technology Pant Nagar, Uttaranchal during 12-24 June, 2006.