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EDUCATION

- **Ph.D.** (Packaging Technology): Yonsei University, Seoul, South Korea, 2014-2018.
- **M.S.** (Packaging Technology): Michigan State University, East Lansing, USA, 2011-2013.
- **M.Tech.** (Food Technology): Sam Higginbottom University of Agriculture, Technology & Sciences Allahabad, India, 2009-2011.
- **B.Tech.** (Food Science): Dr. Panjabrao Deshmukh Agriculture University, Akola, India, 2005-2009.

WORK EXPERIENCE

Assistant Professor at Indian Institute of Technology (IIT) Roorkee, India Jan 2020 -Present
Postdoctoral Fellow at Ecole Polytechnique de Montréal, Montreal, Canada. March 2018–Feb 2019

HONORS/AWARDS

1. Elected as **Fellow of the Linnean Society of London**, UK October 2019
2. Prestigious **DST INSPIRE Faculty Award** by Department of Science and Technology, Government of India in 2019. **(Research Grant: Rs. 35 lakhs)**
3. Research papers (Ph.D. work) ranked in **ScienceDirect top 25 most downloaded articles** for Progress in Organic Coatings Journal from September- November 2017.
4. **Student Travel Scholarship Award** by International Association for Food Protection (IAFP) USA to participate in IAFP annual meeting at St Louise, USA, in July 2016. **(Grant: \$ 2000)**
5. **A J Banks Travel Award** by Society of Chemical Industries (SCI) London, UK, to participate in an international conference in Munich, Germany, in September 2015. **(Grant: \$1500)**
6. **Outstanding Foreign Student Scholarship Award** in the Ph.D. program by Yonsei University, Seoul, South Korea, in 2014. **(Grant: \$ 26500)**
7. **Certificate of Appreciation** from Indian Society of Agriculture Engineers (ISAE), at 48th Annual convention and symposium of engineering intervention in conservation agriculture February 2014.
8. **Student of the Month Award** by Packaging Graduate Association, Michigan State University, USA, in 2011.
9. Worked as **Food Safety Officer** in **Common Wealth Games (CWG)** Delhi 2010 to inspect the quality of athlete's food.
10. **Merit Scholarship** for the M.Tech program by Directorate of Technical Educational, Government of Maharashtra, India, in 2010. **(Grant: 60000 INR)**

ADMINISTRATIVE POSITIONS

Sr No	Organization	Position
1	Bureau of Indian Standards (BIS) India	Technical Expert Committee Member : Paper and Its Products
2	Indian Institute of Technology Roorkee, India	Professor-In-Charge, Library, IIT Roorkee
3	Indian Institute of Technology Roorkee, India	Professor-in-Charge (OC) Electricity & Telephone, IIT Roorkee, Saharanpur Campus
4	Indian Institute of Technology Roorkee, India	Professor-In-Charge (OC) Time Table, Paper Technology Dept.
5	Indian Institute of Technology Roorkee, India	Department Placement Coordinator, Paper Technology Dept.

MAJOR FIELDS OF INTEREST

- Protective food packaging for distribution/transportation
- Safe, smart and sustainable packaging
- Temperature regulating packaging
- Active Packaging & food shelf life (Use of oxygen, ethylene & moisture absorbers, antimicrobial agents)
- Multilayer high barrier films, Smart packaging (indicators, sensor)

SPONSORED RESEARCH PROJECTS

Sr No	Title of Project	Funding Agency	Role	Budget	Year
1	Sustainable packaging for food	SERB	PI	30 Lakhs	2022
2	Scientific Management of Natural Resources for Sustainable Development in UBA Clusters of Shivalik Region	DST	Co-PI	46 Lakhs	2022
3	Packaging System for Shelf Life Extension of Fresh Fruits and Vegetables	UCOST	Co-PI	5 Lakhs	2020
4	Active Packaging System for Fresh Produce	SRIC, IIT Roorkee	PI	20 Lakhs	2020
5	Biodegradable active films for food packaging applications	DST	PI	35 Lakhs	2019

INTERNATIONAL RESEARCH EXPOSURE

Sr No	Country Visited	Period	Purpose
1	Canada	2018-2019	Postdoctoral fellowship (PDF)
2	Thailand	November 2017	Presentation at 8 th Shelf Life International Meeting 2017, Bangkok
3	USA	June 2017	IFT annual meeting 2017, Las Vegas
4	Spain	November 2016	Empack 2016, Madrid (Packaging trade show)
5	USA	July 2016	Presentation at IAFP annual meeting at St Louis
6	Japan	May 2016	Research project meet at University of Narita
7	Germany	September 2015	Presentation at innovation in food packaging, shelf life and food safety conference at Munich
8	Switzerland	September 2015	Visited the University of Zurich for research collaboration
9	China	January 2015	Industrial visit Rising Packaging & Printing Management, Shanghai
10	South Korea	2014-2017	Doctoral Degree (PhD: Packaging)
11	USA	2011-2013	Master Degree (MS: Packaging)

INVITED TALK/GUEST SPEAKER

1. Guest Speaker for the Training program on paper and paper-based food-grade testing organized by Central pulp and Paper Research Institute on 21st May 2019 at **Saharanpur, India**
2. Invited speaker at the International Conference on "Food Antioxidants and Functional Ingredients-Shelf Life Extension, Nutrition and Health" organized by SCI, London, on 9th March 2018, **London, UK**
2. Invited speaker in Euro food summit and expo, to deliver an expert lecture on "Advances in functional food packaging Technology" at EURO FOOD 2015 held on June 16-18 2015 in **Alicante, Spain.**
3. Invited speaker in BIT's 5th Annual world congress of Nanoscience and Technology, to deliver an expert lecture on "Use of nanotechnology in packaging Technology held in Sep. 24-26, 2015, in **Xi'an, China.**
4. Invited speaker in First International Conference on tropical agriculture and Horticulture science, to deliver an expert lecture on Extension of the shelf life of post-harvested fresh produce through packaging technology" held on June 6-7 June 2015 at **New Delhi, India.**
5. Guest speaker in "Mahalaxmi Saras 2014" organized by the Ministry of Rural Development, Government of India, and delivered an expert lecture on "Recent trends in food packaging" held in February 2014 at **Mumbai India.**

PATENTS

Sr No	Name of Patent	Assignee	Country	Registration number	Status
1	Novel oxygen scavenging film and composition for packaging comprising the same	You Suk Lee; Kirtiraj K. Gaikwad	USA (PCT)	10-2017-0087080	Filled
2	UV activated oxygen absorbing packaging materials and preparation method thereof	You Suk Lee; Kirtiraj K. Gaikwad	South Korea	KOR1020170091190	Granted

BOOK

Author: PK Omre, Suman Singh, Kirtiraj K. Gaikwad

Title: Food Packaging System

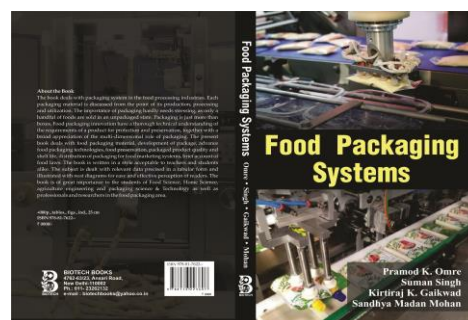
Publisher: BioTech Books Publisher, New Delhi.

Year of Publication: 2015

ISBN: 978-81-7622

BOOK CHAPTERS

- 1 **Kirtiraj K. Gaikwad**, Suman Singh, PK Omre, Sandhya Madan Mohan. Active and intelligent packaging: Innovations for the future Chapter in Food Processing and Technology: new emerging areas. Shree publishers and distributor, New Delhi. PP: 10-21. **ISBN:** 978-81-8329-717-2.
- 2 Suman Singh, **Kirtiraj K. Gaikwad**, PK More. Food Packaging Development Chapter in Food Processing and Technology: new emerging areas. Shree publishers and distributor, New Delhi. PP: 10-21. **ISBN:** 978-81-8329-717-2.
- 3 Suman Singh, **Kirtiraj Gaikwad**, PK Omre, Food sovereignty as a way to achieve food security Chapter in Extension for agriculture & rural development. BioTech Books, New Delhi. PP-133-138. **ISBN:** 978-8-176223386.



PEER-REVIEWED RESEARCH PAPERS

(Citation: 1200; h-index: 23; i10 index: 30; RG Score: 31)

2022

55. Ram Deshmukh, Konala Akhila, Dakuri Ramakanth, **Kirtiraj K. Gaikwad*** (2022) Guar gum/carboxymethyl cellulose based antioxidant film incorporated with halloysite nanotubes and litchi shell waste extract for active packaging. Journal of Biological Macromolecules. <https://doi.org/10.1016/j.jbiomac.2021.12.198> (**Impact Factor: 6.95**) (Q1)

54. Aakash Upadhyay, Pardeep Kumar Saurabh Kumar, **Kirtiraj K. Gaikwad*** (2022) Ethylene scavenging film based on corn starch-gum acacia impregnated with sepiolite clay and its effect on quality of fresh broccoli florets. Food Bioscience. <https://doi.org/10.1016/j.fbio.2022.101556> (**Impact Factor: 4.24**) (Q1)

53. Afreen Sultana, Ajay Kathuria, **Kirtiraj K. Gaikwad*** (2022) Metal-organic frameworks for active food packaging. A review. Environmental Chemistry Letters. <https://doi.org/10.1007/s10311-022-01387-z> (**Impact Factor: 9.02**) (Q1)

2021

52. Lokesh Kumar, Dakuri Ramakanth, Konala Akhila, **Kirtiraj K. Gaikwad*** (2021) Edible films and coatings for food packaging applications: a review. Environmental Chemistry Letters <https://doi.org/10.1007/s10311-021-01339-z> (**Impact Factor: 9.02**) (Q1)

51. Vidhi Gupta, Rakhi Yadav, Rohit Tanwar, **Kirtiraj K. Gaikwad*** (2021). κ -Carrageenan-based bio-nanocomposite film reinforced with cellulose nanocrystals derived from amla pomace for food packaging. Biomass Conversion and Biorefinery doi: <https://doi.org/10.1007/s13399-021-02028-1> (**Impact Factor: 4.98**) (Q1)

50. Jitendra Kumar, Konala Akhila, **Kirtiraj K. Gaikwad*** (2021). Recent developments in intelligent packaging systems for food processing industry: a review. Food Processing and Technology 12: 895.

49. Avinash Kumar, Vidhi Gupta, **Kirtiraj K. Gaikwad** (2021) Microfibrillated cellulose from pine cone: extraction, properties, and characterization. Biomass Conversion and Biorefinery. <https://doi.org/10.1007/s13399-021-01794-2> (**Impact Factor: 4.98**) (Q1)

48. Pardeep Kumar, Rohit Tanwar, Vidhi Gupta, Aakash Upadhyay, Anil Kumar, **Kirtiraj K. Gaikwad*** (2021) Pineapple peel extract incorporated poly(vinyl alcohol)-corn starch film for active food packaging: Preparation, characterization, and antioxidant activity. International Journal of Biological Macromolecules. <https://doi.org/10.1016/j.ijbiomac.2021.07.136> (**Impact Factor: 6.95**) (Q1)

47. Rohit Tanwar, Vidhi Gupta, Pardeep Kumar, Kumar A, **Kirtiraj K. Gaikwad*** (2021) Development and characterization of PVA-starch incorporated with coconut shell extract and sepiolite clay as an antioxidant film for active food packaging applications. International Journal of Biological Macromolecules. 185: 451-461 <https://doi.org/10.1016/j.ijbiomac.2021.06.179> (**Impact Factor: 6.95**) (Q1)

46. Avinash Kumar, Vidhi Gupta, S. Saini, **Kirtiraj K. Gaikwad*** (2021) Pine needles lignocellulosic ethylene scavenging paper impregnated with nanozeolite for active packaging applications. Industrial Crops and Products. 170: 113752 doi: <https://doi.org/10.1016/j.indcrop.2021.113752> (**Impact Factor: 5.64**) (Q1)

45. Shashank Saini, A. A. Kadam, V. Kumar, **Kirtiraj K. Gaikwad**, D. Dutt (2021) Conversion of rice straw into disposable food-serving bowl via refiner mechanical pulping: an environmentally benign approach to mitigate stubble burning and plastic pollution. Biomass Conversion and Biorefinery. <https://doi.org/10.1007/s13399-021-01728-y> (**Impact Factor: 4.98**) (Q1)

44. Dakuri Ramakanth, Suman Singh, P. K. Maji, Youn Suk Lee, **Kirtiraj K. Gaikwad*** (2021) Advanced packaging for distribution and storage of COVID-19 vaccines: a review. Environmental Chemistry Letters. doi:<https://doi.org/10.1007/s10311-021-01256-1> (**Impact Factor: 9.02**) (Q1)

43. Vidhi Gupta, Dakuri Ramakanth, Chhavi Verma, P. K. Maji, **Kirtiraj K. Gaikwad*** (2021) Isolation and characterization of cellulose nanocrystals from amla (*Phyllanthus Emblica*) pomace. Biomass Conversion and Biorefinery <https://doi.org/10.1007/s13399-021-01852-9> (**Impact Factor: 4.98**) (Q1)

42. Ajit Kumar, Dakuri Ramakanth., Avinash Kumar, Lee, Y. S., **Kirtiraj K. Gaikwad*** (2021). Active packaging technologies for clean label food products: a review. Journal of Food Measurement and Characterization, 1-11.<https://doi.org/10.1007/s11694-021-01024-3> (**Impact Factor: 2.43**) (Q3)

41. Ashish Kadam, Suman Singh, **Kirtiraj K. Gaikwad*** (2021) Chitosan-based antioxidant films incorporated with pine needle (*Cedrus deodara*) extract for active food packaging applications. Food Control.124: 107877. Doi: 10.1016/j.foodcont.2021.107877 (**Impact Factor: 5.54**) (Q1)

40. Pragya Gupta, Akanksha Pandey, **Kirtiraj K. Gaikwad**, Sunanda Roy, Pradip Maji (2021) Role of rheological premonitory of hydrogel based on cellulose nanofibers and polymethylsilsesquioxane on the physical properties of corresponding aerogel. Polymer Engineering and Science. Doi: 10.1002/pen.25671 (**Impact Factor: 2.42**) (Q2)

2020

39. Gaurav Singh, Suman Singh, Bijender Kumar, **Kirtiraj K. Gaikwad***(2020) Active oxygen barrier chitosan films containing gallic acid-based oxygen scavenger. Journal of Food Measurement & Characterization. Doi: 10.1007/s11694-020-00669-w (**Impact Factor: 2.43**) (Q3)

38. Suman Singh, Pradip K Maji, Youn Suk Lee, **Kirtiraj K Gaikwad*(2020)** Applications of gaseous chlorine dioxide for antimicrobial food packaging: a review. *Environmental Chemistry Letters*. <https://doi.org/10.1007/s10311-020-01085-8> **(Impact Factor: 9.02) (Q1)**

37. Kumar, B.; Priyadarshi, R.;.....**Gaikwad, K.K.;** Kim, J.; Kumar, A.; Negi, Y.S. **(2020)** Nanoporous sodium carboxymethyl cellulose-*g*-poly (Sodium Acrylate)/FeCl₃ hydrogel beads: synthesis and characterization. *Gels* 6 (4): 49. Doi: 10.3390/gels6040049 **(Impact Factor: 4.70) (Q1)**

36. **Kirtiraj K. Gaikwad.**, Singh, S., Shin, J., Lee, Y.S., **(2020)** Novel polyisoprene-based UV-activated oxygen scavenging films and their applications in packaging of beef jerky. *LWT -Food Science and Technology*. 117:108643. Doi: [10.1016/j.lwt.2019.108643](https://doi.org/10.1016/j.lwt.2019.108643). **(Impact Factor: 4.95) (Q1)**

35. **Kirtiraj K. Gaikwad,** Singh, Suman, Yuvraj Singh Negi **(2020)** Ethylene scavengers for active packaging of fresh food produce. *Environmental Chemistry Letters*. 18: 269-284. Doi.10.1007/s10311-019-00938-1 **(Impact Factor: 9.02) (Q1)**

34. **Kirtiraj K. Gaikwad***, Singh, Suman, Yuvraj Singh Negi, Youn Suk Lee **(2020)** The effect of trans-polyisoprene/LDPE based active films on oxidative stability in roasted peanuts. *Journal of Food Measurement & Characterization*. 14:1857-1864. Doi.10.1007/s11694-020-00433-0. **(Impact Factor: 2.43) (Q3)**

2019

33. Suman Singh, **Kirtiraj K. Gaikwad,** Youn Suk Lee **(2019)** Development and application of a pyrogallol acid-based oxygen scavenging packaging system for shelf life extension of peeled garlic. *Scientia Horticulturae*. 256:108548 Doi.10.1016/j.scienta.2019.108548 **(Impact Factor: 3.46) (Q1)**

32. **Kirtiraj K. Gaikwad,** Suman Singh, Abdellah Ajji **(2019)** Moisture absorbers for food packaging applications. *Environmental Chemistry Letters*. 17 (2)609–628 Doi.10.1007/s10311-018-0810-z **(Impact Factor: 9.02) (Q1)**

31. Suman Singh, **Kirtiraj K. Gaikwad,** Youn Suk Lee **(2019)** Temperature-controlling system for fresh produce during distribution and transportation. *Journal of Thermal Analysis and Calorimetry*. Doi: 10.1007/s10973-019-08658-y **(Impact Factor: 4.62) (Q1)**

2018

30. **Kirtiraj K. Gaikwad,** Suman Singh, Youn Suk Lee **(2018)** Antimicrobial and improved barrier properties of natural phenolic compound-coated polymeric films for active packaging applications. *Journal of Coatings Technology and Research*. 16: 147–157. Doi. 10.1007/s11998-018-0109-9 **(Impact Factor: 2.38) (Q2)**

29. Suman Singh, **Kirtiraj K. Gaikwad,** Youn Suk Lee **(2018)** Temperature-sensitive smart packaging for monitoring the shelf life of fresh beef. *Journal of Food Engineering*. 234:42-49. doi: 10.1016/j.jfoodeng.2018.04.014. **ScienceDirect top 25 most downloaded articles. (Impact Factor: 5.35) (Q1)**

28. **Kirtiraj K. Gaikwad,** Suman Singh, Youn Suk Lee **(2018)** High adsorption of ethylene by alkali-treated halloysite nanotubes for food packaging applications. *Environmental Chemistry Letters*. 16:1055–1062 Doi. 10.1007/s10311-018-0718-7 **(Impact Factor: 9.02) (Q1)**

27. Suman Singh, **Kirtiraj K. Gaikwad,** Myungho Lee, Youn Suk Lee **(2018)** Thermally buffered corrugated packaging for preserving the postharvest freshness of mushrooms (*Agaricus bisporus*). *Journal of Food Engineering*. 218:11-19. Doi: 10.1016/j.jfoodeng.2017.07.013 **(Impact Factor: 5.35) (Q1)**

26. **Kirtiraj K. Gaikwad,** Suman Singh, Youn Suk Lee **(2018)** Oxygen scavenging films in food packaging. *Environmental Chemistry Letters*. 16:523–538 Doi 10.1007/s10311-018-0705-z **(Impact Factor: 9.02) (Q1)**

25. Suman Singh, Myungho Lee, **Kirtiraj K. Gaikwad,** Youn Suk Lee **(2018)** Antibacterial and amine scavenging properties of silver-silica composite for post-harvest storage of fresh fish. *Food and Bioprocess Technology*. 107: 61-69 Doi: 10.1016/j.fbp.2017.10.009 **(Impact Factor: 4.48) (Q1)**

24. Suman Singh, **Kirtiraj K. Gaikwad,** Youn Suk Lee **(2018)** Anthocyanin – a natural dye for smart food packaging systems. *Korean Journal of Packaging Science & Technology*. 24 (3) 167-180 <https://doi.org/10.20909/kopast.2018.24.3.167>

23. Suman Singh, **Kirtiraj K. Gaikwad,** Youn Suk Lee **(2018)** Phase change materials for advanced cooling packaging. *Environmental Chemistry Letters*. Doi. 10.1007/s10311-018-0726-7 **(Impact Factor: 9.02) (Q1)**

2017

22. Kirtiraj K. Gaikwad, Suman Singh, Youn Suk Lee (2017) A pyrogallol-coated modified LDPE film as an oxygen scavenging film for active packaging materials. *Progress in Organic Coatings*.111:186-195. Doi 10.1016/j.porgcoat.2017.05.016. **ScienceDirect top 25 most downloaded articles. (Impact Factor: 5.16) (Q1)**

21. Suman Singh, **Kirtiraj K. Gaikwad**, Myungho Lee, Youn Suk Lee (2017) Microwave-assisted micro-encapsulation of phase change material using zein for smart food packaging applications. *Journal of Thermal Analysis and Calorimetry*. 131 (3)2187–2195 DOI: 10.1007/s10973-017-6768-4 **(Impact Factor: 4.62) (Q1)**

20. Kirtiraj K. Gaikwad, Suman Singh, Youn Suk Lee (2017) A new pyrogallol coated oxygen scavenging film and their effect on oxidative stability of soybean oil under different storage conditions. *Food Science and Biotechnology* 26(6) 1535–1543. Doi 10.1007/s10068-017-0232-x **(Impact Factor: 2.39) (Q3)**

19. Suman Singh, **Kirtiraj K. Gaikwad**, Youn Suk Lee (2017) Antimicrobial and antioxidant properties of polyvinyl alcohol biocomposite films containing seaweed extracted cellulose nano-crystal and basil leaves extract. *International Journal of Biological Macromolecules*. 107, 1879-1887. Doi: 10.1016/j.ijbiomac.2017.10.057 **(Impact Factor: 6.95) (Q1)**

18. Suman Singh, **Kirtiraj K. Gaikwad**, Youn Suk Lee (2017) Temperature regulating material for advanced food packaging- Review. *Journal of Food Measurement & Characterization*. 12(1) 588–601 Doi: 10.1007/s11694-017-9672-5 **(Impact Factor: 2.43) (Q3)**

17. Suman Singh, **Kirtiraj K. Gaikwad**, Youn Suk Lee (2017) Microwave-assisted step reduced extraction of seaweed (*Gelidiella acerosa*) cellulose nanocrystals. *International Journal of Biological Macromolecules*. 99: 506–510. Doi 10.1016/j.ijbiomac.2017.03.004 **(Impact Factor: 6.95) (Q1)**

16. Kirtiraj K. Gaikwad, Seong Min Lee, Youn Suk Lee (2017) Development of antimicrobial polyolefin films containing lauroyl arginate and their use in the packaging of strawberries. *Journal of Food Measurement & Characterization*. 11:1706–1716. Doi 10.1007/s11694-017-9551-0 **(Impact Factor: 2.43) (Q3)**

15. Kirtiraj K. Gaikwad, Youn Suk Lee (2017) Current scenario of gas scavenging systems used in active packaging – A review. *Journal of Packaging Science and Technology*. 23(2) 109-117. Doi 10.20909/kopast.2017.23.2.109.

14. Kirtiraj K. Gaikwad, Youn Suk Lee (2017) Effect of storage conditions on the absorption kinetics of non-metallic oxygen scavenger suitable for moist food packaging. *Journal of Food Measurement & Characterization*. 11(3) 965–971. Doi 10.1007/s11694-017-9470-0 **(Impact Factor: 2.43) (Q3)**

2016

13. Byung J. Ahn, **Kirtiraj K. Gaikwad**, Youn Suk Lee (2016) Characterization and properties of LDPE film with gallic-acid-based oxygen scavenging system useful as a functional packaging material. *Journal of Applied Polymer Science* 133: 44138. Doi 10.1002/app.44138 **(Impact Factor: 3.12) (Q2)**

12. Kirtiraj K. Gaikwad, Jin Yong Lee, Youn Suk Lee (2016) Development of polyvinyl alcohol and apple pomace bio-composite film with antioxidant properties for active food packaging application. *Journal of Food Science and Technology*. 53(3):1608- 1619. Doi 10.1007/s13197-015-2104-9 **(Impact Factor: 2.70) (Q2)**

11. Kirtiraj K. Gaikwad, Youn Suk Lee (2016) Novel natural phenolic compound-based oxygen scavenging system for active packaging applications. *Journal of Food Measurement & Characterization*. 10 (3): 533–538. Doi 10.1007/s11694-016-9332-1 **(Impact Factor: 2.43) (Q3)**

10. Kirtiraj K. Gaikwad, Suman Singh, Youn Suk Lee (2016) Functional corrugated board with organic and inorganic materials in food packaging application: A Review. *Journal of Packaging Science and Technology* 22 (3) 49-58. Doi 10.20909/kopast.2016.22.3.49

9. Suman Singh, **Kirtiraj K. Gaikwad**, P.K. Omre, Youn Suk Lee (2016) Process development for stabilization of sugar cane juice using response surface methodology. *Journal of Food Measurement & Characterization*. 10:727–737. Doi 10.1007/s11694-016-9357-5 **(Impact Factor: 2.43) (Q3)**

2015-2013

8. Kirtiraj K. Gaikwad, Seonghyuk Ko (2015) Overview on polymer nano clay composite paper coating for packaging application. *Journal of Material Science & Engineering* 4:151. Doi: 10.4172/2169-0022.1000151

7. Singh, S., Omre, P. K., **Kirtiraj K. Gaikwad** (2014) Sensory Evaluation of optimized and Stabilized Sugarcane Juice. *International Journal of Engineering Research and General Science* 2(6). 637-648

6. Suman Singh, **Kirtiraj K. Gaikwad** and P.K. Omre, **(2014)** Spoilage of Sugarcane Juice a Problem in sugarcane Industry - A Review. International journal of agricultural Engineering. 7(1): 259-263
5. Suman Singh, P.K. Omre, **Kirtiraj K. Gaikwad (2014)** Standardization of process parameters for neem oil & determination of properties for using as a fuel. International Journal of Engineering Research & General Science 2: 6.
4. Suman Singh, **Kirtiraj K. Gaikwad**, P.K. Omre, B.K. Kumbhar **(2013)** Microwave Convection Drying Characteristics of Beet Root (Beta Vulgaris L.) Using Modeling Equations for Drying. Journal of Food Process Technology 4:263. DOI: 10.4172/2157-7110.1000263
3. **Kirtiraj K. Gaikwad**, Singh S, Shakya B.R. **(2013)** Studies on the Development and Shelf Life of Low-Calorie Herbal Aonla-Ginger RTS Beverage by Using Artificial Sweeteners. Journal of Food Process Technology 4: 200. DOI:10.4172/2157-7110.1000200
2. **Kirtiraj K. Gaikwad**, Suman Singh, B. R. Shakya **(2013)** Studies on the development and shelf life of low-calorie herbal aonla-ginger RTS beverage by using artificial sweeteners. Beverage & Food World Journal 40 (4) 34-36.
1. Singh Suman and **Kirtiraj K. Gaikwad (2013)**. Studies on the development and storage stability of bitter gourd-lemon function RTS beverage. Internat. Journal of Processing & Post-Harvest Technology, 3 (2): 306-310.

CONFERENCE ABSTRACTS / PRESENTATION

1. **Gaikwad, K. K. Lee, YS 2017**, Oxygen scavenging films based on pyrogallol coating for active packaging applications. 8th The Shelf Life International Meeting (SLIM 2017) held on Nov 1-3, 2017 in **Bangkok, Thailand**.
2. **Gaikwad, K. K. Lee, YS 2016**, Ceramic as a potential material for advance food packaging applications 48th Annual conference of Korean society of packaging science & technology held on Oct 29-31, 2016 at **Jeju, South Korea**
3. **Gaikwad, K. K. Lee, YS 2016**, Novel natural phenolic compound-based oxygen scavenging system for active food packaging applications. In the IAFP 2016 Annual Meeting. IAFP. **St. Louis, USA**.
4. **Gaikwad, K.K. Lee, YS 2015**, Development of oxygen scavenging functional film for lipid containing food packaging. Proceeding of Innovation in Food Packaging, Food Safety and Shelf life, 15-17 September, **Munich, Germany**.
5. S. Singh, **K.K. Gaikwad 2015**, Optimization of process parameters for stabilization of sugarcane juice. Proceeding of Innovation in Food Packaging, Food Safety and Shelf life, 15-17 September, **Munich, Germany**
6. **K.K. Gaikwad 2015**, Advances in functional food packaging technology. Proceeding of 5th Euro-Global Summit and Expo on food & beverages June 16-18, **Alicante, Spain**.
7. **Kirtiraj Gaikwad**, Suman Singh and P.K. Omre **2014**, Modified atmospheric packaging of blackberry fruits with the use of chlorine dioxide gas & its effect on antioxidant & phenolic properties, Proceeding of National seminar on nation resource management in G.B.P.U.A & T India. Theme -IV PP: 239-245
8. Suman Singh, **Kirtiraj K. Gaikwad**, P K Omre, Anwasha Sarkar, A.E. Kate **2014**, Food Packaging Development, Proceeding of an International Interactive Seminar On food processing industry new Bundelkhand University Jhansi on July 7-8 2014.
9. **Kirtiraj K. Gaikwad**, Suman Singh, P K Omre, Sandhya Madan Mohan **2014**, Active & Intelligent Packaging: innovations for the future, proceeding of an international interactive seminar on the food processing industry new entrepreneurial opportunity with sustainable business patterns at Institute of Food Technology, Bundelkhand University Jhansi on July 7-8 2014
10. Suman Singh, PK Omre, **Kirtiraj Gaikwad**, Sandya Mohan **2014** Managing environmental sustainability in Indian food & drinks Industries Proceedings of the All India seminar on Emerging technology for sustainable resource management March 13-14, 2014 Pantnagar, India.
11. Suman Singh, P K Omre, **Kirtiraj Gaikwad 2014** Spoilage of sugar cane juice -A problem in Sugarcane Industries Proceedings of the 48th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and Symposium on Engineering Interventions in Conservation Agriculture February, 21-23, 2014 Udaipur, India.

12. **Kirtiraj Gaikwad**, M Siddiq, Susan Selke, **2013**, Effect of Chlorine Dioxide Package System (PET & PLA material) on Antioxidant Capacity, Total Phenolic and Color of blackberry fruits, Proceedings of the International Conference on food Processing and Technology, 2013, **Kansas City, USA**.
13. **Kirtiraj Gaikwad**, Suman Singh **2012**, Microwave in sterilization technology, Proceedings of the International Conference on Agriculture, Food Sciences and Environmental Technology for Sustainable Global Development (AFSET 2012) at Jawaharlal Nehru University, Delhi, India.
14. **Kirtiraj K. Gaikwad 2012** Food sovereignty as a way to achieve food security. Proceedings of the International symposium Agricultural communication and sustainable rural development from information to knowledge to wisdom at G.B. Pant University of Agriculture & Technology Pant agar, Uttarakhand, India.
15. **Kirtiraj Gaikwad**, Pratik Bagde **2007**, Quality assessment of Gulucha (Milk product). Proceedings of the Indian Convention of Food Scientists and Technologists (ICFOST 2007), at IIT Kharagpur, India.
16. **Kirtiraj Gaikwad 2006**, Realization the potential of Nano Biotechnology. Proceedings of the Convention of Food Scientists and Technologists (ICFOST 2006) in N.G. Ranga Agri. University Hyderabad, India.

CONFERENCES (as a delegate)

- Institute of Food Technologist (**IFT 2017**) annual meeting held on 25-28th June **2017 in Las Vegas, USA**.
- 51st Annual conference of Korean society of packaging science & technology held on April 20-21, 2017 at **Seoul, South Korea**.
- 48th Annual conference of Korean society of packaging science & technology held on Oct 29-31, 2015 at **Jeju, South Korea**.
- 47th Conference on smarter packaging technology for food, drug & logistics, held on April 22-23, 2015 organized by the Korean society of packaging science & technology at **Seoul, South Korea**.
- Medical device packaging symposium on packaging technology for export of the medical devices held on 18 November 2014 at **Wonju, South Korea**.
- 18th IAPRI World Packaging Conference held on June 17-21. 2012 in **San Luis, California, USA**.
- Volunteered and actively participated in PACK EXPO 2012, **Chicago, USA**.
- A workshop entitled, Critical research needs in Food & Packaging industry (2011), organized Korean society of packaging science & technology at **East Lansing, Michigan, USA**.
- International Food Conference "IFCON 2008" at Central food technological research institute (CFTRI), Mysore, India.

TEACHING ENGAGEMENTS

Subject	Subject Code	Class	Semester
Packaging Principles, Processes, and Sustainability	PPN-541	M.Tech	Autumn
Packaging Materials	PPN-543	M.Tech	Autumn
Food Packaging	PPN 544	M.Tech	Spring
Packaging Design	PPN 546	M.Tech	Spring

TRAINING PROGRAMS CONDUCTED FOR INDUSTRIES/ORGANIZATION

1. **Korea International Cooperation Agency (KOICA), South Korea**
Conducted two days' laboratory session for Lebanon delegates on packaging materials testing's (Paper and plastic) on 1st and 2nd December 2016.
2. **Korea International Cooperation Agency (KOICA), South Korea.**
Conducted two days training program for Lebanon delegates on evaluation and testing of packaging material used for fresh produce packaging on 10-11th March 2016.
3. **Center for Incubation & Business Acceleration (CIBA), Goa, India**
Conducted four days training program on Advance packaging technology of Meat & Meat product, Spices, RTE products 28th Jan-1st Feb 2014.
4. **Jabil Circuits, Pune, India.**
Conducted two days Training program on Packaging Materials, Testing & Quality control and laboratory testing 7-8 Feb 2014.

CERTIFICATE COURSES

1. **Bio Safety**
Department of Health, Safety and Environment, Yonsei University, Seoul, Korea.
2. **Laboratory Safety & WHIMS**
Department of Health, Safety and Environment, Yonsei University, Seoul, Korea

REVIEWER (SCI INDEXED JOURNAL)

1. Journal of Applied Polymer Science (Wiley)
2. Waste and Biomass Valorization (Springer)
3. Food Packaging and Shelf life (Elsevier)
4. Food Engineering Reviews (Springer)
5. International Journal of Food Properties. (Taylor & Francis)
6. Sugar Tech. (Springer)
7. Food Measurement and Characterization (Springer)

MEMBERSHIP & ASSOCIATION

1. Institute of Packaging Professional (**IoPP**), Chicago, USA. (**ID #82941**)
2. Society of Chemical Industries (**SCI**), London, UK. (**ID #71860**)
3. International Association of Food Protection (**IAFP**), USA. (**ID #45085**)
4. American Society for Testing and Materials International (**ASTM**), USA. (**ID#1817555**)
5. International Society of Food Engineering (**ISFE**), USA. (**ID #1514**)
6. Association of Food Scientist & Technologist (**AFSTI**) India. (**ID # 2/R037/15/ZON**)
7. Michigan State University Packaging Alumni Association (MSU-PAA), USA.