

# Dr Prabhat K Nema



*Associate Professor*

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## Research Interests

*Fruits and Vegetable Processing, High Pressure Processing, Food Fouling*

## Education

**2008:** PhD (Dairy Engineering), IIT, Kharagpur, WB, India

**1997:** M.Tech (Dairy & Food Engineering), IIT, Kharagpur, WB, India

**1995:** B.Tech (Agricultural Engineering), JNKVV, Jabalpur, MP, India

## Work Experience

- Associate Professor** : College of Food Processing Technology & Bio Energy, Anand Agricultural University, Anand Gujarat INDIA (Dec 2009– June 2011)
- Academic Visitor** : School of Food Biosciences, The University of Reading, READING, United Kingdom (March 2007-August 2007)
- Assistant Professor** : K N K College of Horticulture, (JNKVV/ RVSKVV), Mandsaur, MP (Jan 2005 – Dec 2009)
- Lecturer** : North Eastern Regional Institute of Science and Technology, Nirjuli, Itanagar, AP (July 2001-Jan 2005)
- Assistant Technical Manager** : Fable Investment Limited, (Food Division), Kolkata, West Bengal. (Jan 1997-Aug 1999)
- Project Trainee** : Pepsi Snacks and Food. Marketing Co., a subsidiary of Pepsi Foods Limited, N. Delhi. (May 1996-Nov 1996)

## Publications

1. Pendre N K , Prabhat K Nema, Harsh P Sharma, S S Rathore, S S Kushwah (2012) Effect of Drying Temperature and Slice Size on Quality of Dried Okra (*Abelmoschus esculentus* L.), Journal of Food Science and Technology (online available)
2. Prabhat K. Nema, Debabandya Mohapatra (2011) Modeling pulse microwave drying kinetics of ginger (*Zingiber officinale* R.) (*submitted*)
3. Prajapati V. K, **Nema Prabhat K.** and Rathore S. S. (2011) Effect of pretreatment and drying method on quality of value-added dried aonla (*Emblica officinalis* Gaertn) shreds, Journal of Food Science and Technology, 48(1): 45-52
4. P K Jain, P Jain and **P K Nema** (2011) Quality of guava and papaya fruit pulp as influenced by blending ratio and storage period, American Journal of Food Technology Vol 6 (6): 507-512.
5. D. K. Sharma, S.S. Kushwah, **Prabhat K. Nema** and S.S. Rathore (2011) Effect of Sulphur on Yield and Quality of Potato (*Solanum tuberosum* L.), International Journal of Agricultural Research, 6(2):143-148
6. Ahromrit Araya and **Nema Prabhat K.** (2010) Heat and mass transfer in deep-frying of pumpkin, sweet potato and taro, Journal of Food Science and Technology, 47(6): 632-37
7. Sharma H P, Chakroborty S K and **Nema P K** (2010) Mechanism and designs of pulse electric field food processing chambers: an overview, Beverage and Food World, March 2010, Vol 37 (3).
8. **Nema P K** and Kushwah S S, (2009) Study on the effect of different shapes of potato sample on infra-red drying kinetics at different temperatures, Potato Journal, 36 (3-4) July Dec, 2009, 149-154.
9. **P K Nema**, N Ramayya, E Duncan and K Niranjana (2008) Review: Potato glycoalkaloids: formation and strategies for mitigation, Journal of Science of Food and Agriculture. Volume 88, Issue 11, Pages: 1869-1881
10. Jain P K and **Nema P K** (2007) Processing of Pulp of Various Cultivars of Guava (*Psidium guajava* L.) for Leather Production". Agricultural Engineering International: the CIGR Ejournal. Manuscript FP 07 001. Vol. IX. August, 2007.
11. **P. K. Nema** & A. K. Datta. (2006) Comparative Study of Heat Induced Fouling of Various Types of Milk Flowing over Heated Metal Surface, International Journal of Food Engineering, Bepress Publication Vol 2, Issue 3, Article 9.
12. **P. K. Nema** & A. K. Datta. (2006) Improved milk fouling simulation in helical triple tube heat exchanger. International Journal of Heat and Mass Transfer. Elsevier Science Publication, UK Volume 49, Issue 19-20, Pages 3360-3370.
13. **P. K. Nema** & A. K. Datta. (2005) A computer based solution to check the drop in milk outlet temperature due to fouling in a tubular heat exchanger, Journal of Food Engineering, Elsevier Science Publication, UK, 71(2), 133-142)
14. Dobariyal A. & **P. K. Nema**. (2005) Effect of processing temperature and acidity on the formation of deposit from milk on heated surface. Beverages and Food World, Vol. 32

(8), 69-72.

15. **P. K. Nema** & S. Prasad (2004) Effects of Frying Oil Temperature on Quality and Yield of Potato Chips, *Journal of Food Science and Technology, India*, Vol. 41 (4), 448-450
16. **P. K. Nema** & A. K. Datta. (2004) Infra Red Drying and Hot Air Drying of Potato: A Theoretical Consideration, *Journal of Food Science and Technology, India*, 41(5), 580-584
17. Ashish Pandey & **P. K. Nema**. (2004) Manufacturing of Particle Board from Soybean Husk without Resin. *Journal of Institution of Engineers, India*, Vol. 85, 5-9.
18. R. R. Shelke & **P. K. Nema**. (2004) Importance of cleaning and sanitation in dairy industry. *Beverages and Food World*, 2004. Vol. 31 (11), 44-46.
19. **P. K. Nema**. (2004) Hot air and Infra red Drying of Carrot. *Beverages and Food World*, 2004, Vol. 31 (3), 31-32.
20. **P. K. Nema** & Ashish Pandey (2003) Prospects of Ginger Processing In North Eastern Region of India. *Beverages and Food World*, 2003, Vol. 30 (3), 32-36.

## Conferences and Seminars

1. Joshi D C and **Nema P K** (2010) “High Pressure Processing - A Novel Food Processing Technique” in National Food Processing National Food Processing Technology Seminar 2010, Theme: Innovations of Food Processing in the 21<sup>st</sup> Century (July 8-10, 2010) at A D Patel Institute of Technology, New Vallabh Vidya Nagar, Anand, Gujarat, India.
2. Chakraborty, S.K., Pravesh Yadav, **Nema, P.K.** and Sharma, H.P. (2010). Process parameter optimization in relation to some sensory attributes of fibre enriched biscuits using response surface methodology (RSM). In: National Seminar on “Value Addition of Agricultural Produces and Current Status of Small Scale Food Processing Units” at MPUAT, Udaipur, 18-19<sup>th</sup> Feb, 2010.
3. P.K. Sahoo, **P.K. Nema** & A.K. Datta (2006) Simulation Of Fouling Behaviour In A Helical Triple Tube Ultra-High-Temperature (UHT) Milk Sterilizer, Conference FCD2006, Department of Chemical Engineering, University of Cambridge, UK, March 18, 2006.
4. **P. K. Nema** (2005) Processing Technology of Opo, the Rice Beer of Arunachal Pradesh India, 2<sup>nd</sup> International Conference on “Fermented Foods, Health Status and Social Well-being”, by Swedish South Asian Studies Network, Lund University, Sweden, (December 17-18, 2005 at Anand Agril. University, Anand, Gujarat India).
5. **P. K. Nema** (2005) Effect of Processing Parameter on the Formation of Deposit from Milk on Heated Surface. National Symposium on Emerging Trends in Dairy Processing Systems and its Impacts on Quality Attainment, by Indian Dairy Association, (16-17 March 2005) at College of Dairy Science and Technology, Mannuthy, Thrissur, p 108.
6. **P. K. Nema**, P. K. Sahoo & A. K. Datta, (2004) Milk Fouling Simulation in Triple Tube Heat Exchanger, International Conference on ‘Emerging Technologies in Agricultural and Food Engineering (etae2004)’ at IIT Kharagpur, December 14-17, 2004.

7. **P. K. Nema** & A. K. Singh, (2004) Pulsed Microwave Drying Of Ginger (*Zingiber Officinale* Rose) International Workshop and Symposium on Industrial Drying (IWSID2004) at University of Mumbai, Institute of Chemical Technology, Mumbai. December 20-23, 2004.
8. **P. K. Nema**. & A K Singh (2004) Effect of processing temperature and acidity on the formation of deposit from milk on heated surface. (Abstract) ICFOST 2004, AFST(I), CFTRI Mysore.
9. **P. K. Nema**, R. K. Tejra & A. K. Singh (2003) Comparison of Infra Red Drying with Hot Air Drying of Carrot. (Abstract) 37th Convention of ISAE, Jan 2003, Udaipur, p 123.
10. **P. K. Nema** & A. K. Datta (2003) Comparison of Infra Red Drying with Hot Air Drying of Potato. (Abstract), 5th International Food Convention on “ Innovative Food Technologies and Quality Systems–Strategies for global competitiveness” Dec. 5-8, 2003, AFST(I), CFTRI Mysore
11. **P. K. Nema**, T. Karlo & A. K. Singh (2003) Opo -The Rice Beer, International Seminar & Workshop on “Fermented Foods, Health Status and Social Well-being”, by SASNET, Lund University, Sweden, November 13-14, 2003 at IRMA, Anand, Gujarat India. p 59-61 and p 96
12. **P. K. Nema** (2003) Design of Helical Triple Tube Heat Exchanger for Milk Processing. ISTE-AICTE short term winter school on Recent Advances in Design and Testing of Agricultural Machines, June 23-July 4, 2003, Dept. of Agril. Engg., NERIST, Itanagar, p V1-V15
13. **P. K. Nema** (2002) Heat Exchangers and Milk Processing Problems in Dairy Industry ISTE-AICTE short term winter school on Mechanical Engineering Design: Concurrent Engineering Approach, December 2-13, 2002, Mechanical Engg. Dept., NERIST, Itanagar, p Nil

### **Awards and Recognition**

*Seligman APV Fellowship 2007 by the Society of Chemical Industry, London, UK.*