

Sanjaya K. Dash, Ph.D.
Dean,
College of Agricultural Engineering and Technology,
Orissa University of Agriculture and Technology
Bhubaneswar



Education

- Ph.D. (Agril. Engg.), Indian Agricultural Research Institute, New Delhi (India)- 1999
- M. Eng.(Ag.) in Processing and Food Engineering, Rajasthan Agricultural University (India)- 1989
- B.Sc. (Ag. Engg. & Tech.), OUAT, Bhubaneswar- 1987

Experience

- Working in OUAT Bhubaneswar since 1990 in different capacities in teaching, research and extension
- Professor, Department of Agricultural Processing and Food Engg. since Jan, 2008.
- Head of the Department, Agricultural Processing and Food Engineering during 2nd Dec, 2011 to 24th July 2017

Externally Funded Projects/ schemes

1. Co-Principal Investigator, Onion Value Chain Improvements in Odisha state (a collaborative project of OUAT with the World Vegetable Centre (AVRDC)) (2016-19)
2. Consortium Principal Investigator, World Bank funded National Agricultural Innovation Project (NAIP) subproject on “A Value Chain of Ginger and Ginger Products” (2009-2013)
(CPI during 01.10.2013-31.12.2013 and Consortium Co-PI during 15.04.2009-30.09.2013)
3. Principal Investigator, “Experiential Learning Facility on Model Agro-Processing Centre” (Project funded by the Indian Council of Agricultural Research) (sanctioned in 2006)
4. Co-Scientist of the Govt. of India, Dept. of Bio-Technology sponsored project on “Rural Bio-Resource Complex in Villages of Puri District”(2006-2010)
5. Programme I/C, IGNOU programme study centre offering course on “Diploma in Value Added Products from Fruits and Vegetables” (2006-2010)
6. In-charge of the Govt. of India, Ministry of Food Processing Industries funded scheme for ‘Strengthening of Infrastructure for Human Resource Development’ (granted in 2005).
7. Core team member of the National Agricultural Technology Project (NATP) on “Technology Assessment and Refinement Through Institute Village Linkage Programme in Eastern Ghat Highland Zone of the Rain-Fed Agro-Eco system”. (2003-05)

Other important assignments

- Member, Capacity building program on Teaching and learning Excellence under Indo-US Agricultural Knowledge Initiative.
- Member, Agricultural Consultancy Support Service Cell of the Orissa University of Agriculture and Technology.
- Subject Expert for the preparation of study materials for the Diploma in Value Added Products from Fruits and Vegetables offered by the Indira Gandhi National Open University and authored a block entitled “Plant layout, equipment and mechanization”

- Programme I/C of the IGNOU study centre operating in the College of Agricultural Engineering and Technology, Orissa University of Agriculture and Technology.
- Member in several important technical committees of the state government

Courses taught

- Dairy and Food Engineering
- Food Packaging
- Unit Operations in Food Process Engineering
- Post Harvest Engg of Horticultural Produce

Students guided

Guided two Ph. D. and nine M. Tech. research

Significant research contributions

- Developed a computer program for predicting the thermal environment in any enclosure
- Developed the process technology for value added products from ginger, onion, garlic, and different vegetables and fruits. Developed the technology of microwave assisted convective dehydration of ginger, pineapple, etc.
- Standardised the parameters for perforation mediated MAP for storage of carrot and mushroom
- Developed low cost portable evaporative cooled storage structure

Present research interests

Grain processing and value addition, Food packaging, Value chain management of crops

International fellowships

- International PG Course on Food Technology, Hebrew University, Jerusalem- 2000 (with MASHAV fellowship)
- International Summer Course on Integrated Agricultural Engineering, University of Goettingen, Germany- 2001 (with DAAD Fellowship)
- Visiting scholar, Ohio State University, Columbus, United States of America under the project entitled "Teaching and learning excellence: a capacity building model" under Indo-US Agricultural Knowledge Initiative Program, 2008
- Visiting Scholar, Michigan State University, United States of America, 2010 under National Agricultural Innovation Project of ICAR for training on Smart Packaging.
- Visiting Scholar, University of Saskatchewan, Canada, during May, 2011 (under NAIP project on A value chain management of ginger and ginger products)
- Netherland Govt's Fellowship to attend a short course in Wageningen University, Netherlands on 'Lost and wasted food' during 2014.

Honours and Awards

- Commendation medal, 2014 of the Indian Society of Agricultural Engineers for significant contributions in the field of processing, dairy and food engineering.
- Best Teacher Award, 2008-09, Orissa University of Agriculture and Technology
- Distinguished Services Award, 2006 from the Indian Society of Agricultural Engineers, New Delhi

- Three awards for papers/ presentations

Peer recognition

- Invited as Adjunct Professor/ Visiting faculty/ Lead speaker to many central and state agricultural universities, ICAR institutes and Management Institutes,
- Chaired technical sessions in Indo-US International conference on Polymers for packaging applications (ICPPA 2012) held at Kottayam, Kerala and in many national seminars/ workshops
- Consultant and resource person to different Govt. and non-Government organizations
- Member, Editorial board of two research journals and referee of many national/ international journals; Referee of projects/ schemes submitted to ICAR and other agencies;
- Peer-reviewer of the project proposals of Georgia National Science Foundation (GNSF), presently renamed as Rustaveli Foundation
- Expert member in many SAUs and ICAR institutes
- Member of several state and national level committees working on post harvest management and food processing

Publications

Authored 5 books with ISBN numbers, 11 books/ course manuals (without ISBN), four book chapters, more than 50 research papers in peer reviewed journals and more than 150 popular technical articles.

Selected recent research publications

- Dawange S P, **Dash, S K**, Bal, L M and Panda M K. 2016. Quality of minimally processed carrots in perforation-mediated modified-atmosphere packaging (PM-MAP). *Journal of Food Measurement and Characterization* (Springer). DOI 10.1007/s11694-016-9359-3.
- Devi, T B, **Dash, S K**, Bal, L M and Sahoo N R. 2016. Physicochemical and microbiological characteristics of ginger paste (Cv. Suprabha) during storage in different packaging and temperature conditions. *Cogent Food and Agriculture* (Taylor and Francis) 2: 1223261
- Murali, S, Kar, A, Patel, A S, Mohapatra, D and **Dash, S K**. 2016. Encapsulation of rice bran oil in tapioca starch-soya protein isolate complex using spray drying. *Indian Journal of Agricultural Sciences* 86(8): 984-991.
- **Dash, S K**, Dwivedy, S, Pal, U S, Dawange, S and Atibudhi, H N. 2015. Post harvest practices of ginger in Odisha, India- present status and scope for development. *Agricultural Mech. in Asia, Africa and Latin America*. 46(4): 28-38
- Dhalsamant K, **Dash S K**, Bal, L M and Panda M K. 2015. Effect of perforation mediated MAP on shelf life of mushroom (*Volvariella volvacea*). *Scientia Horticulturae* 189:41-50
- Mohanta B, **Dash, S K**, Panda, M K, Sahoo, G R. 2014. Standardization of process parameters for microwave assisted convective dehydration of ginger. *Journal of Food Science and Technology*. 51(4): 673-681.
- Sahoo, N R, Pal, U S, **Dash, S K**, Panda, M K. and Sahoo, D. 2014. Comparison of drying characteristics of onion shreds in hot air, heat pump and microwave assisted convective dryer. *Journal of Agricultural Engineering* 51(1): 23-30.
- Bebartta, J P, Sahoo, N R, **Dash, S K**, Panda, M K, Pal, U S. 2012. Kinetics modeling and moisture diffusivity of onion slices in fluidized bed drying. *Journal of Food Processing and Preservation*. DOI: 10.1111/j.1745-4549.2012.00764.x

- Sahoo, N R, Pal, U S, **Dash, S K**, Khan, Md. K. 2012. Drying kinetics and quality aspects during heat pump drying of onion (*Allium cepa* L.). *International Journal of Food studies* 2: 159-167.

Books with ISBN

1. **Dash, S K**, Sahoo, N R. 2014. *Concepts of Food Process Engineering*. Kalyani Publishers, New Delhi. 404 p. (ISBN 978-93-272-3923-2)
2. **Dash, S K**, Bebarta, J P, Kar A. 2012. *Rice processing and allied operations*. Kalyani Publishers, New Delhi. 310 p (ISBN 978-93-272-1902-9)
3. **Dash, S K**. 2004. *Food Processing and Engineering*. Block 4- Plant layout, equipment and mechanization (Nath, N Ed.). IGNOU, New Delhi, 64 p. (ISBN-81-266-1895-7).

Course manuals and books published by university

1. **Dash, S K**. 2015. *Food Engineering*. College of Agricultural Engineering and Technology, Bhubaneswar, 188 p.
2. **Dash, S. K.** and Khan, M K. 2014. *Post Harvest Management of Fruits and Vegetables*. College of Agricultural Engineering and Technology, 80 p.
3. **Dash, S K**, Mohapatra, M., Pal, U S and Bakhara, C K. 2014. *Post Harvest Management and Value Addition of Spices*. College of Agricultural Engineering and Technology, 80 p.
4. Pal, U S, **Dash, S K** (Eds.). 2013. *Post Harvest Management of Grains*. College of Agricultural Engineering and Technology, 80 p. (ISBN 978-93-272-1902-9)
5. **Dash, S K**, Agarwal, A and Singha, A K. 2013. *Value chain management of ginger*. NAIP II Sub-project on 'A Value Chain on ginger and ginger products', OUAT, 62 p.
6. **Dash, S K**, Bakhara, C K, Pal, U S. 2013. *Understanding Food Process Engineering through numericals*. OUAT, Bhubaneswar, 114 p. (ISBN 978-93-5137-067-3)
7. **Dash, S K**, Bakhara C K, Panda M K. 2012. *Concepts in Post Harvest Engineering*. OUAT, Bhubaneswar, 114 p.
8. **Dash, S K**, Rayaguru K, Khan, MK. 2012. *Concepts in Dairy and Food Engineering*. OUAT, Bhubaneswar, 114 p.
9. Sahoo, N R, **Dash S K**, Pal, US. 2012. *Concepts in Food and Dairy Technology*. OUAT, Bhubaneswar, 114 p.
10. **Dash, S K** and Panda, M. K. 2007. *Manual of Food Engineering Principles*. OUAT, Bhubaneswar, 100 p.
11. **Dash, S K**, Panda, M. K., Pal, U.S. and Mohanty, S. N. 2006. *Manual of Food Engineering Equipment*. OUAT, Bhubaneswar, 96 p.

Book Chapters

1. Pal U S, **Dash, S K**. Post harvest processing of pulses: Innovations for livelihood improvement. In *Pulse production in India- challenges and opportunities*. New India Publishing House, pp 249-268
2. **Dash, S K**. 2015. Modified atmosphere packaging of food. In Alavi, S, Thomas, S, Sandeep, KP, Kalarikkal N, Varghese J, Yaragalla S (Eds.) *Polymers for Packaging Applications*. CRC Press, Boca Raton, pp 337-378.
3. **Dash, S K**. 2015. Post harvest management and value addition in sustainable agriculture. In *Integrated farming system Practices- challenges and opportunities*. New India Publishing House, pp 384-415

Contact details:

Email: sk_dash1006@hotmail.com
Ph. +91-94372 05952; +91-674-2560095 (Res.)