

Sanjaya K Dash, Ph.D.

Dean

College of Agricultural Engineering and Technology

Odisha University of Agriculture and Technology

Bhubaneswar

and

Formerly Professor and Head, Processing and Food Engineering



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 Deptt. during 2nd Dec, 2011 to 24th July 2017).
- Dean, College of Agricultural Engineering and Technology, Bhubaneswar since June, 2017.

International fellowships/ Foreign trainings

- 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. Fellowship to attend a short course in Wageningen University, Netherlands on ‘Lost and wasted food’ during 2014.*

Externally Funded Projects/ schemes

- Co-Principal Investigator, Onion Value Chain Improvements in Odisha state (a collaborative project of OUAT with the World Vegetable Centre (AVRDC)) (2016-19)
- 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)

- Principal Investigator, “Experiential Learning Facility on Model Agro-Processing Centre” (Project funded by the Indian Council of Agricultural Research) (sanctioned in 2006)
- Co-Scientist of the Govt. of India, Dept. of Bio-Technology sponsored project on “Rural BioResource Complex in Villages of Puri District” (2006-2010)
- Programme I/C, IGNOU programme study centre offering course on “Diploma in Value Added Products from Fruits and Vegetables” (2006-2010)
- In-charge of the Govt. of India, Ministry of Food Proc. Industries funded scheme for ‘Strengthening of Infrastructure for Human Resource Development’ (granted in 2005).
- 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)
- Coordinator, BPCL-OUAT Biofuel project since 2018
- Co-Principal Investigator, Development of nutri-smart villages for combating malnutrition in tribal districts of Odisha (2017-21)

Other important responsibilities handled in recent years

- Member, Research Advisory Committee of ICAR-CIPHET, Ludhiana (2017-20), ICAR-IINRG, Ranchi (2018-21) and ICAR-NIRJAFT (2020-23)
- Member, Quinquennial Review Team of the ICAR-CIPHET, Ludhiana and AICRP on PHET (2012-17).
- Member, BoS of Dr.RPCA, Pusa and BPUT, Odisha
- Director, Processing, Dairy and Food Engineering of Indian Society of Agricultural Engineers since 2019
- Chairman, Technology Management Cell of OUAT
- District Nodal Officer, Boudh for monitoring of agriculture and farmers’ empowerment activities
- Nodal Officer, SLTI, PMFME, Odisha
- Member in several important technical committees of the State government and other agencies

Courses taught

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

Students guided

Guided three Ph. D. and 15 M. Tech. research

Present research interests

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

Honours and Awards

- Samanta Chandra Sekhar Award of Govt of Odisha during 2018
- Fellow, Indian Society of Agricultural Engineers (ISAE), 2018
- Professional Engineer, Engineering Council of India
- 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 ISAE, New Delhi
- Many awards for papers/ presentations

Publications

Authored 7 books with ISBN numbers, 12 books/ course manuals (without ISBN), four book chapters, more than 60 research papers in peer reviewed journals and more than 150 popular technical articles.

Books with ISBN

1. Swain, S, **Dash, S K**, Mangaraj, S, Ali, N. 2017. Agricultural Process Engineering Vol I (Properties and Heat and Mass Transfer Applications). Kalyani Publishers, New Delhi. 428 p.
2. Mangaraj, S, **Dash, S K**, Swain S. and Ali, N. 2017. Agricultural Process Engineering Vol II (Post Harvest Unit Operations). Kalyani Publishers, New Delhi. 428 p.
3. Mangaraj, S, Ali, N. Swain S. and **Dash, S K** 2017. Agricultural Process Engineering Vol III (Storage Engineering and Technology). Kalyani Publishers, New Delhi. 348 p.
4. Swain, S, Ali, N., Mangaraj, S, **Dash, S K**. 2017. Agricultural Process Engineering Vol IV (Process Machinery, Standards and Research Management). Kalyani Publishers, New Delhi. 526 p.
5. **Dash, S K**, Sahoo, N R. 2014. Concepts of Food Process Engineering. Kalyani Publishers, New Delhi. 404 p. (ISBN 978-93-272-3923-2)
6. **Dash, S K**, Bebart, J P, Kar A. 2012. Rice processing and allied operations. Kalyani Publishers, New Delhi. 310 p (ISBN 978-93-272-1902-9)
7. **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).

Selected Recent Publications

1. Prava V, **Dash S K**, Rayaguru, K, Panda M K, Nedunchezhiyan M. 2020. Optimization of starch isolation process of sweet potato and characterization of the prepared starch. Journal of Food Measurement and Characterization (Springer) 14:1520–1532
2. Prava V, **Dash S K** and Rayaguru, K. 2019. Post-harvest Processing and Utilization of Sweet Potato: A Review. Food Reviews International. DOI: org/10.1080/87559129.2019.1600540
3. Patel, A S, Kar A, Dash S, **Dash S K**. 2019. Supercritical fluid extraction of β -carotene from ripe bitter melon pericarp. Scientific Reports DOI: 10.1038/s41598-019-55481-4
4. Pal U S, Das M, Nayak R N, Sahoo N R, Panda M K, **Dash S K**. 2018. Development and evaluation of retort pouch processed chhenapoda (cheese based baked sweet). Journal of Food Science and Technology (Springer). 56(9), DOI: 10.1007/s13197-018-3490-6

5. Dhalsamant K, **Dash S K**, Bal L M and Panda M. K. 2018. Evaluation of modified atmosphere packaged chemically treated mushroom (*Volvariella Volvacea*) for shelf life quality. *Agricultural Engineering Today* 42(1): 66-72
6. 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* (Taylor and Francis). DOI 10.1007/s11694-016-9359-3.
7. 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.
8. 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.
9. **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 Mechanization in Asia, Africa and Latin America*. 46(4): 28-38.
10. 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.

Book Chapters

1. Rayaguru K. & **Dash S. K.** 2017. Scope of Entrepreneurship Developments in Pineapple Processing. In K P Sudheer and V Indira (Eds.). *Entrepreneurship and Skill Development In Horticultural Processing*. New India Publishing Agency (ISBN 9789386546807)
2. Pal U S, **Dash, S K.** 2016. Post harvest processing of pulses: Innovations for livelihood improvement. In Nanda S.S. (ed.) *Pulse production in India- challenges and opportunities*. New India Publishing House, pp 249-268
3. **Dash, S K.** 2015. Modified atmosphere packaging of food. In Alavi, S, Thomas, S, Sandeep, KP, Kalarikkal N, Varghese J, Yarangalla S (Eds.) *Polymers for Packaging Applications*. CRC Press, Boca Raton, pp 337-378.
4. **Dash, S K.** 2015. Post harvest management and value addition in sustainable agriculture. In Nanda S.S. (ed.) *Integrated farming system Practices- challenges and opportunities*. New India Publishing House, pp 384-415

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