Dr. B. Sreenivasula Reddy

M.Tech(IIT, KGP), Ph.D (UNL-USA)

Scientist and Head

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EDUCATION

Ph.D in Engineering (Agricultural and Biological Systems Engineering) from University of Nebraska – Lincoln, Lincoln, USA

M.Tech in Post-harvest Engineering from Indian Institute of Technology (IIT), Kharagpur

B.Tech in Agricultural Engineering from A.N.G.R. Agricultural University, Hyderabad

PROFESSIONAL EXPERIENCE

6/2017 –Present	Scientist & Head, Post- harvest Engineering & Technology Center, RARS, Tirupati of A.N.G.R. Agricultural University (ANGRAU), Guntur
1/2007 –6/2017	Assistant Professor, A.N.G.R. Agricultural University (ANGRAU), Guntur
10/2005 - 1/2007	Software Engineer, Real Soft International Pvt. Limited, Bangalore
8/2004 – 7/2005	Research Associate, A.N.G.R. Agricultural University (ANGRAU), Hyderabad (Netherlands Assisted FAO project).
1/2002 – 8/2004	Research Associate, Central Institute of Agricultural Engineering (CIAE), Bhopal *(In* World Bank funded National Agricultural Technology subproject on Team of Excellence on Agricultural Machinery Design and Development*)*
6/2001 – 12/2001	Production Executive, Carritt Moran & Company Limited, Tamil Nadu
5/2000 – 12/2000	Trainee Software Engineer, Frontier Information Technology Limited, Hyderabad

RESEARCH INTERESTS

Processing and value addition of agricultural and horticultural produce; development of process engineering equipment and novel technologies for food processing; byproduct utilization; food packaging; properties of the agricultural produce and their measurement techniques; computer applications in agriculture and machine vision systems; storage,

handling and enhancing shelf life of agricultural and horticultural crops; microbiological safety of foods.

AWARDS AND FELLOWSHIPS RECEIVED

- David H. & Annie E. Larrick and Whitmore student research travel grant offered by the Institute of Agriculture and Natural Resource (IANR), UNL, USA for the year 2015.
- 2012-13 Grant from the Jamsetji Tata Trust, Mumbai for the scholastic performance in the higher studies abroad from the J.N. Tata Endowment.
- 2012 Tata scholar- Loan scholarship for the higher studies abroad from the J.N. Tata Endowment, Mumbai.
- 2012 Travel fellowship from Sir Dorabji Tata Trust, Mumbai.
- 2012-15 Graduate research assistantships from the University of Nebraska-Lincoln, United States of America.
- 2004-2005 Research Associateship from the Netherlands Assisted FAO project.
- 2002-2004 Research Associateship from the World Bank funded National Agricultural Technology subproject on Team of Excellence on Agricultural Machinery Design and Development.
- 1998-2000 Ministry of Human Resources Development, Government of INDIA fellowship (for MS).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Member - American Society of Agricultural and Biological Engineers, USA
- Life member - Association of Food Scientists & Technologist (India), Mysore
- Life member - Indian Society of Agricultural Engineers, New Delhi
- Life member – Andhra Journal of Agriculture, Hyderabad
- Secretary – Andhra Pradesh Agricultural University Teachers Union, Bapatla Chapter for the year 2008-09
- Treasurer, Alumni Association, College of Agricultural Engineering, Bapatla for the year 2008-09.

PUBLICATIONS

- Refereed Journal Articles**: 15** (14 International + 1 National)
- Conference Papers**: 17** (10 International + 7 National)

- Practical Manuals**: 3**
- Book Chapters**: 3**
- Course Materials: **4**

REFEREED JOURNALS ARTICLES

1. Boreddy, S.R., H. Thippareddi, G. Froning, and J. Subbiah. 2016. Novel Radiofrequency Assisted Thermal Processing Improves the Gelling Properties of Standard Egg White Powder. Journal of Food Science. 81(3):E665-E671
2. Boreddy, S. R., & Subbiah, J. 2016. Temperature and moisture dependent dielectric properties of egg white powder. Journal of Food Engineering.168:60-67.
3. Padma, M., Reddy, B. S., & Madhava, M. 2016.Evaluation of the quality parameters of the turmeric rhizomes dried on different floors and conditions.International Journal of Agricultural Sciences, 12(2), 302-308.
4. M. Padma, B. Sreenivasula Reddy & M. Madhava. 2016. Some studies on curing and drying characteristics of turmeric rhizomes.International Journal of Processing and Post-Harvest Technology,7(1), 151-156.
5. Boreddy, S.R., and J. Subbiah. 2015. Physical and thermal properties of spray dried egg white powder. Transactions of the ASABE, 58(5), 1409-1416.
6. Boreddy, S.R., S.L. Birla, G. Froning, H. Thippareddi, and J. Subbiah. 2014. Effect of radio frequency assisted thermal processing on quality and functional properties of egg white powder. Transactions of the ASABE, 57(6), 1761-1770.

7. Mangaraj, S.; Singh, K.K.; Varshney, A.C.; Reddy, B.S. (2009). Design and Development of a fruit grader. Journal of Food Science and Technology, 46(6), 554-558.
8. Singh K.K.; Sreenivasula Reddy, B. (2006). Post Harvest Physico-Mechanical Properties of Orange Peel and Fruit. Journal of Food Engineering, UK, 73 (2006) 112-120. doi:10.1016/j.jfoodeng.2005.01.010.
9. Singh K.K.; Reddy, B.S. (2006). Measurement of mechanical properties of sweet orange. Journal of Food Science and Technology, 43(4), 442-444.
10. Reddy, B.S.; Chakraverty, A. (2005). Heat of vaporization of raw and parboiled paddy. Journal of Food Science and Technology, Vol. 42(2), 150-152.

11. Mangaraj, S.; Varshney, A.C.; Reddy, B.S.; Singh, K.K. (2005). Development of a stepwise expanding pitch fruit grader. Journal of Agricultural Engineering, Vol. 42(3), Jul-Sep, 74-79.
12. Reddy, B.S.; Chakraverty, A. (2004). Equilibrium moisture characteristics of raw and parboiled paddy, brown rice, and bran. Drying Technology, 22(4), 837-851. doi:10.1081/DRT-120034266
13. Reddy, B.S.; Chakraverty, A. (2004). Physical properties of raw and parboiled paddy. Biosystems Engineering, 88(4), 461-466. doi: 10.1016/j.biosystemseng.2004.05.002.
14. Singh K.K.; Reddy, B.S.; Varshney, A.C.; Mangraj, S. (2004). Physical and frictional properties of Orange and Sweet Lemon. Applied Engineering In Agriculture. American Society of Agricultural Engineers, USA, Vol. 20(6):821-825.
15. Reddy, B.S.; K.K. Singh; A.C. Varshney; S. Mangraj. (2004). Studies on some engineering properties of sapota (Achras Zapota). Journal of Agricultural Engineering, Vol 41(1), Jan-Mar, 1-6.

CONFERENCE PAPERS

1. Boreddy, S.R., and J. Subbiah. 2017. Enhancing Microbiological Safety of Packaged Soft Wheat Flour Through Radiofrequency-Assisted Thermal Processing. Presented in 51st Convention of Indian Society of Agricultural Engineers (ISAE) held at CCSH Agricultural University, Hisar, Haryana during February 16-18, 2017.
2. Boreddy, S.R., and J. Subbiah. 2017. Radiofrequency-Assisted Thermal Processing of Packaged Low-Moisture Food Powders for Enhancing Microbiological Safety. Presented in National Seminar on "Trends in Farm Mechanization and Engineering Interventions for Sustainable Agriculture" held at Regional Agricultural Research Station (RARS), Tirupati during January 19-20th 2017.
3. Boreddy, S.R., Shengqian, S., Thippareddi, H., and Subbiah, J.2015. Process validation for low-moisture foods Case Study: Radiofrequency pasteurization of egg white powder. Presented in PROCESS EXPO organized by the Food Processing Suppliers Association (FPSA) at Chicago, IL during Septemebr 15- 18,2015.
4. Boreddy, S.R., and J. Subbiah. 2015. Physical and Thermal Properties of Spray Dried Egg White Powder. Presented at 2015 ASABE Annual International Meeting held at New Orleans, Louisiana during July 26 – 29, 2015

5. Boreddy, S.R., and J. Subbiah. 2015. Temperature and moisture dependent dielectric properties of egg white powder. Presented at poster session of 49th Annual Microwave Power Symposium (IMPI 49) held at San Diego, CA, USA during June 16-18, 2015.
6. Boreddy, S.R., and J. Subbiah. 2015. Effect of Radio Frequency Assisted Thermal Processing on Functional Properties of High Gel and Standard Egg White Powders. Presented at 49th Annual Microwave Power Symposium (IMPI 49) held at San Diego, CA, USA during June 16-18, 2015.
7. Boreddy, S.R., G. Froning, H. Thippareddi, and J. Subbiah. 2014. Functional Properties of Standard and High Gel Egg White Powder Treated by Radio Frequency Assisted Thermal Processing. Paper presented in the poster session of Conference of Food Engineering (CoFE) held at Omaha, Nebraska, USA during April 7-9, 2014.
8. Boreddy, S.R., Birla, S., G. Froning, and J. Subbiah. 2013. Effect of Radio Frequency Heating on Functional Properties of Egg White Powder. Paper No.FPE-138, Presented at 2013 ASABE Annual International Meeting held at Kansas City, Missouri during July 21-24, 2013.
9. Boreddy, S.R., Birla, S., G. Froning, and J. Subbiah. (2013). Radio Frequency Heat Assisted Pasteurization of Egg White Powder. Presented at 47th Annual Microwave Power Symposium (IMPI 47) held at Rhode Island, USA during June 25-27, 2013.
10. Sreenivasula Reddy, B. and Padma, M. (2010). Drying of turmeric rhizomes under polyhouse Conditions. Presented the research paper in 44th Annual conference of ISAE, New Delhi during the January 2010. (Paper No.ACP-2010-25)
11. Sreenivasula Reddy, B.; Amarjeet Singh; and Chandra Kumar, L. (2010). Physical Properties of the 'Jafra' (Bixa Orellana) seed. Presented in poster session of in 44th Annual conference of ISAE, New Delhi during the January 2010. (Paper No.ACP-2010-26)
12. Mangaraj S.; Varshney, A.C.; Singh, K.K.; and Reddy, B.S. (2005). Design and Development of a Fruit Grader. Paper presented at 39th Annual Convention of ISAE held at ANGRAU, Hyderabad during 9-11, March 2005.
13. Singh K.K.; B.S. Reddy (2004). Effect of Storage Period on Physico-Mechanical Properties of Sweet Orange Peel and Fruit. Proceedings of International Conference on "Emerging Technologies in Agricultural and Food Engineering (etae2004)" held during December 14-17, 2004, Indian Institute of Technology, Kharagpur, PP: 165-173.
14. Varshney, A.C.; Mangraj, S.; Reddy, B.S.; Singh, K.K. (2004). Performance evaluation of stepwise expanding pitch grading mechanism. Paper presented at 38th Annual

convention of ISAE held at CAET, Dr. BSSKKV, Dapoli, Maharastra during January 16-18, 2004.

15. Reddy, B.S.; Smith, D.D.; Sreenivasulu, Y; Haribabu, B.(2004). Design and performance evaluation of Compact Color Intensity Reflectometer. Paper presented at 38th Annual convention of ISAE held at CAET, Dr. BSSKKV, Dapoli, Maharastra during January 16-18, 2004.
16. Reddy, B.S.; Sahay, K.M.; Singh, K.K. (2004). Design of Reinforced Cement Concrete Grain Silos. Paper presented in "National Workshop on Design Methodology of Agricultural Machinery" held during July 16-17, 2004 at Central Institute of Agricultural Engineering, Bhopal.
17. Reddy, B.S. (2000). The determination of moisture equilibrium isotherms of raw, parboiled paddy and their constituents. Paper presented in poster session of international conference on processed food for 21st century held at Science city, Culcutta during January 14-16, 2003.

PRACTICAL MANUALS

- Sreenivasula Reddy, B.; Madhava, M.; Sivala Kumar; and Bhaskar Rao, D. (2009). Engineering Properties of Biological Materials and Food Quality. Published by Acharya N.G. Ranga Agricultural University, Hyderabad.
- Lakshmi J.; Baig, M.S.; Sreenivasula Reddy, B.; and Preethi Sagar, R. (2011). Principles of Food Preservation. Published by Acharya N.G. Ranga Agricultural University, Hyderabad.
- Lakshmi J.; Baig, M.S.; Sreenivasula Reddy, B.; Preethi Sagar, R. and Aruna Kumari, Y. (2011). Bakery and Confectionary Products. Published by Acharya N.G. Ranga Agricultural University, Hyderabad.

BOOK CHAPTERS

- Sahay K.M.; Singh, K.K.; **Reddy, B.S.** (2004). Chapter 12. Cleaners and Graders. In: Data Book for Agricultural Machinery Design. Ed.: Varshney, A.C etc.. Book No. CIAE/2004/1. Pub.: Central Institute of Agricultural Engineering, Bhopal, pp:422-431.
- Sahay K.M.; Singh, K.K.; **Reddy, B.S.** (2004). Chapter 13. Material Handling Equipment. In: Data Book for Agricultural Machinery Design. Ed.: Varshney, A.C. etc.. Book No. CIAE/2004/1. Pub.: Central Institute of Agricultural Engineering, Bhopal, pp:432-448.

- Sahay K.M.; Singh, K.K.; **Reddy, B.S.** (2004). Chapter 14. Storage Structures. In: Data Book for Agricultural Machinery Design. Ed.: Varshney, A.C. etc.. Book No. CIAE/2004/1. Pub.: Central Institute of Agricultural Engineering, Bhopal, pp:449-471.

COURSE MATERIALS

- **Sreenivasula Reddy, B.(2011).** Instrumentation & Process Control. Course material published by Acharya N.G. Ranga Agricultural University, Hyderabad.
- **Sreenivasula Reddy, B.(2011).** Food Plant Design and Layout. Course material published by Acharya N.G. Ranga Agricultural University, Hyderabad.
- **Sreenivasula Reddy, B.(2011).** Heat and Mass Transfer. Course material published by Acharya N.G. Ranga Agricultural University, Hyderabad.
- **Sreenivasula Reddy, B.** and Aruna Kumari , Y**.(2011).** Food Process Equipment – I. Course material published by Acharya N.G. Ranga Agricultural University, Hyderabad.

ACADEMIC RESEARCH PROJECTS

Ph.D

Radio frequency processing for improving microbiological safety of low moisture food products.

M.Tech

Modeling of Isotherms and Physical Properties of Raw and Parboiled Paddy.

B.Tech

Design, fabrication and performance evaluation of Compact Color Intensity Reflectometer.

RADIO INTERVIEWS

- **Sreenivasula Reddy, B. (2008). Development of Value Added Products**. An Interview recorded on 9-7-2008 and Broadcasted on 18-7-2008 by All India Radio vide Lr. No.1(2)/08-P3/16 dt: 12-6-2008 of the Station Director (For and on behalf of the President of India, New Delhi).
- **Sreenivasula Reddy, B. (2008). '**Aahara Dhanyala Nilvalo Yajamanya Padhathulu**' (Food Grain Storage- Management Practices).** An Interview recorded on 8-10-2008 and Broadcasted on 29-10-2008 by All India Radio vide Lr. No.1(2)/08-P3/24 dt: 9-9-2008 of the Station Director (For and on behalf of the President of India, New Delhi).

COURSES TAUGHT TO UNDER GRADUATE STUDENTS OF B.TECH (AGRICULTURAL ENGINEERING), B.TECH (FOOD SCIENCE & TECHNOLOGY), B.Sc (AGRICULTURE)

S.No.	Course No.	Course Title
1	APFE -212	Unit Operations in Agricultural Process Engineering.
2	APFE-412	Refrigeration and Air Conditioning
3	APFE-211	Heat and Mass Transfer
4	FDST-112	Principles of Food Preservation
5	FDEN-221	Heat and Mass Transfer
6	FDEN-123	Energy Generation and Conservation
7	FDEN-223	Food Process Equipment -1
8	FDEN – 321	Instrumentation and Process Control
9	FDEN - 323	Food Plant Design and Layout
10	FAMP-143	Machine Drawing
11	AGEN-131	Engineering Drawing
12	AGEN-111	Engineering Drawing Practice
13	FAMP-242	Computer Programming in 'C'
14	AENG- 251	Green Houses
15	FAMP 243	Farm Power and Tractor Systems

WORKSHOPS /SUMMER /WINTER SCHOOLS ATTENDED

- **Extrusion Workshop** organized by the Department of Food Science and Technology, University of Nebraska – Lincoln during 19-20 May 2015.
- **Summer School** on "***Food Safety and Quality for Global Competitiveness of Traditional Foods of India***" at Centre of Food Science & Technology, Banaras Hindu University (BHU), Varanasi held during September 15th, 2010 to October 5th, 2010
- Short Course on "***Extrusion Processing Science and Applications***" held at Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan organized by the ***Kansas State University***, Manhattan, Kansas(USA) in partnership with *Wenger Manufacturing (USA)* during June 17-18, 2010

- A short term training course on "***Education Technology to The Newly Recruited Teachers***" organized by Educational Technology Cell, ANGRAU, Hyderabad at Agricultural College, Tirupati from 7th June 2008 to 12th June 2008.
- **Winter School** on "***Advances in Video and Multimedia Production***" at NAARM (National Academy of Agricultural Research Management), Hyderabad from November 01 to November 21, 2007.