CurriculumVitae

Name : **S. JOHN DON BOSCO**

Area of specialization :**Agricultural Processing Engineering**

Date of Birth : **7th May 1959**

Address : **Department of Food Science & Technology.**
Pondicherry University, Puducherry – 605014.

Designation : **Professor & Head of Department**

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Educational Qualification

Degree/Diploma	Class/Division	Year	Subject with field of Specialization	Name of the University/ Board
Ph.D.	Distinction (95.9%)	1997	Agriculture Process Engineering.	Tamil Nadu Agricultural University, Coimbatore
THESIS TITLE: Optimisation of modified atmosphere package parameters for coconut fresh kernel. **Topical Research:** (i). Studies on vacuum drying of desiccated coconut. (ii). Development of oil palm depulper.				

Employment record:

Employer	Designation with Institution and place of work	Period	
		From	To
President, ICAR	Scientist, CPCRI, Kasargod, Kerala	29.12.86	17.05.2007

Vice-chancellor	Professor, SRM University	18.05.07	07.05.2009
Vice-chancellor	Reader, Pondicherry University	08.05.2009	Cont.

Awards received:

1	Recipient of ICAR awards for outstanding multi-disciplinary team research in agriculture and allied sciences for the biennium 2003 – 2004
2	Received certificate of appreciation for organizing a Summer School on "Harvest and Post Harvest Technology of Plantation Crops" as Course Director which was conducted as at Central Plantation Crops Research Institute, Kasaragod, Kerala from 23.7.98 to 12.8.98.
3	Received the best site coordinator for the IPGRI – COGENT sponsored project on 'Developing sustainable coconut-based income generating technologies in poor rural communities in India.
4	Received "Associated Agencies Medal" awarded in recognition of the performance in the B.E.(Ag) examination held by the TNAU in the faculty of Agrl. Engg. during 1983-84.
5	Recipient of ICAR - Senior Research fellowship for the period July'94 to June'97 to carry out Ph.DProgramme.

Training in India and abroad:

1) Attended training programme on "Coconut Processing Technology" at Office of the Directorate General of Estate Crops Production, Jakarta, Indonesia during 10 – 15 March, 2003.

2) Attended the XXVII Foundation Course on `Agricultural Research Project Management' conducted at NAARM, Hyderabad during October 14, 1987 to March 1, 1988 and obtained Grade A (80% and above) in the performance evaluation.

3) Attended a summer institute on modeling of technologies for controlled atmosphere storage system for fruits and vegetables at G.B.P.U.A.T, Pantnagar for the period of 21 days from June 21, 1995 to June 11, 1995.

Major contribution during professional career:

I. SIGNIFICANT CONTRIBUTIONS IN RESEARCH:

Category	Title	Details	Additional Information
Novel technology development	Process for making coconut chips **As PI**	Technology has been commercialized. Product is available in the market.	**Bosco, S. J. D**., George V. Thomas and A. Shamina
Novel technology development	Process for making snowball tender coconut**As PI**	Technology has been commercialized. Product is available in the market.	**Bosco, S. J. D.,** George V. Thomas and A. Shamina
Novel technology development	Development of puffed coconut kernel slices**As PI**	Technology is ready for applying for the patent	**Bosco, S. J. D.** and B. Priya
Novel technology development	Process for MAP of fresh coconut kernel **As PI**	Technology is yet to be commercialized.	**Bosco, S. J. D.,** George V. Thomas and A. Shamina
Novel technology development	Process for canning of fresh coconut kernel **As PI**	Technology is yet to be commercialized.	**Bosco, S. J. D.,** George V. Thomas and A. Shamina
Novel technology development	Process for canning of paste of fresh coconut kernel **As PI**	The technology is yet to be commercialized.	**Bosco, S. J. D.,** George V. Thomas and A. Shamina
Novel technology development	Process for fluidized bed drying of disintegrated fresh	Technology is yet to be commercialized.	**Bosco, S. J. D.,** George V. Thomas and A. Shamina

	coconut kernel **As PI**		
Process	Process for the production of the fuel briquette from tender coconut husk **as PI**	Fuel briquettes were made in 2 tonne capacity machine at Gujarat.	**S. J. D. Bosco**
Prototype	Fluidized bed dryer for drying disintegrated coconut kernel **As PI**	The dryer is of capacity 200 coconuts per batch. Drying time is 3 hours	**Bosco. S. J. D**
Prototype	Utilization of coconut pith as fluidised fuel **As CO-PI**	Furnace to burn coconut pith in suspension has been developed. 400 nuts copra dryer suitable to the furnace has been developed.	Singh, T. V., **S. J. D. Bosco** and A. C. Mathew
Prototype	Utilization of coconut pith for biogas production **As CO-PI**	Coconut pith in combination with cowdung gives higher methane content biogas, while coir pith alone does not produce any gas.	Singh, T. V., **S. J. D. Bosco** and A. C. Mathew
Prototype	Development of hybrid copra dryer of solar cum electrical dryer with agricultural waste as third source of energy **As CO-PI**	Capacity is 2500 coconut/batch. It is an integrated system where we can use either solar, electrical or waste heat energy	Madhavan. K and **S. J. D. Bosco**

Prototype	Solar tunnel multi purpose dryer **As CO-PI**	Capacity of the dryer is 2500 coconut/batch. The duration of drying is 3 days.	Madhavan. K and **S. J. D. Bosco**
Process	Preservation techniques were developed for preserving coconut stem and its timber, which will be put to various end uses. **As CO-PI**	Methods used are Brushing or Spraying, Dipping, Soaking/Steeping, Dip Diffusion, Double Diffusion and Hot and Cold Bath method.	Mathew. A. C., **S. J. D. Bosco** and Singh, T. V.

II.External, Consultancy Projects, Contract Research (Other than the Institute)

I	Development of process for making snow ball tender nut. (**Rs. 5.25 lakh)** (Coconut Development Board (Govt. of India), Kochi.) – **as PI**
II	Design of solar cum electrical dryer with agricultural waste as third source of Energy (**Rs 5.00 lakh)** (The Dept. of Electronics, Min. of Science and Technology (Govt. of India). – **as CO-PI**
III	Development of process for value addition and quality improvement of coconut (**Rs. 15.99 lakhs) (NATP) – as PI**
IV	Development of process for value addition and quality improvement of arecanut (**Rs. 15.99 lakhs) (NATP) – as Co-PI**
V	IPGRI – COGENT sponsored project on 'Developing sustainable coconut based income generating technologies in poor rural communities in India (**Rs. 18 lakh) – as Co-PI**
VI	Institution Village Linkage Programme (**Rs. 34.25 lakh) (NATP) – as Co-PI**

III.Invited key speaker in International scientific meeting:

Delivered lecture on 'State of art technologies for processing of coconut based niche products' in XL COCOTECH meting held during 1 – 5, July 2003 at Colombo, Sri Lanka organized by APCC, Indonesia.

IV.Convener or co-convener of seminars/symposia/conference/summer or winter school/ training programme / refresher course

1. Organized of a summer school on "Harvest and Post Harvest Technology of Plantation Crops" as Director of summer school from 23.7.98 to 12.8.98.
2. Organized a training programme on "Post Harvest Technology of Horticultural crops of Konkan Region" as Course Director. The course was organised in **five** batches during 31.10.2000 to 14.12.2000. Each batch duration was 7 days.

LIST OF IMMPORTANT PUBLICATIONS

A. Patent

Patent	Process for the production of Sweet Coconut Chips **as PI**	Patent Application No. 0037/Del/2001. Received First Examination Report	**Bosco, S. J. D**.
Patent	Process for the production of Snow Ball Tender Coconut **as PI**	Patent Application No. 0038/Del/2001. Received First Examination Report	**Bosco, S. J. D.** and K.U.K. Nampoothiri,
Patent	Solar cum electrical dryer with agrl. waste as third source of energy **as Co-PI**	Applied for patent. Application has been filed with patent authority as Complete Application.	Madhavan, K. and **S. J. D. Bosco**& Department of Electronics.
Patent	Development of snow ball tender coconut machine	Applied for patent. Application has been filed with patent authority as Complete Application.	**Bosco, S. J. D**. and T. Vidhan Singh

B. Research paper published:

Authors	Year	Title	Journal
Mathew, A. C., TVidhan Singh &**S J D Bosco**	2000	Technology to produce biogas from coir pith	*Indian coconut journal. Special issue for Cocotech Meeting / International Coconut Conference 31(3):46 – 48*
Mathew, A. C., T Vidhan Singh &**S J D Bosco**	2000.	Coconut timber utilization.	*Indian coconut journal. Special issue for Cocotech Meeting / International Coconut Conference 31 (3):51 – 54.*
Bosco, S. J. D., George V. Thomas and A. Shamina	2002.	Sweet coconut chips – a new coconut kernel based product.	*Indian Coconut Journal. 32(12):4 - 5.*
Madhavan, K., **S.J.D. Bosco** and Hareesh G S.	2002	Design of an automation system for a hybrid dryer for coconut.	*Proceedings of the XV Kerala Science Congress. pp 488 to 493*
Bosco, SJD and C. V. Sairam.	2002	Modeling of coconut processing complex through integrated system.	*Journal of Plantation Crops, (Suppl.) 30: 655 – 662.*
K.Madhavan and **SJD Bosco**.	2002	Design of a forced convection solar cum electrical dryer	*Journal of Plantation Crops, (Suppl.) 30: 690-696* .
Rethinam, P. and **S. J. D. Bosco**.	2003.	Production of white copra for good quality edible copra and coconut oil.	*COCOINFO INTERNATIONAL. 10 (1) : 26 – 33.*

Madhavan, K. and **S.J.D.Bosco**	2004	Development of solar tunnel dryer for plantation crops	*Journal of Plantation Crops, 32 (Suppl):: 428-432.*
Subaharan, K., Velmurugan, R., **Bosco, S.J.D**., Sairam, C.V., Arulraj, S. and Rajagopal, V.	2004	Occurrence of weevil, Dioclandrastigmaticollis in coconut palms in Pondicherry,.	*The Planter. 80 (942): 581-583*
C.V.Sairam, S.Arulraj and **S.J.D.Bosco**	2004	Technology Prioritization for improving coconut productivity in India.	*Journal of Plantation Crops, 32 (Suppl.):465-473.*
Madhavan, K. and **S.J.D.Bosco**	2006	Comparative efficiency of soloarenergy based dryers in relation to copra drying	*Journal of Plantation Crops, 34 (3): 675 - 678*
Balasubramanian, S., Paridhi, G., **Bosco, S.J.D**., & Kadam, D. M.	2012	Optimization of process conditions for the development of tomato foam by box-behnken design.	*Food and Nutrition Sciences, 3(7), 925.*
Bhol S., and **Bosco, S.J.D**.	2013	Bhol, S. (2013). Enrichment of yeast leavened bread by pomegranate bagasse powder.	*Food Science, 2(5).*
Mir, S. A., &**Bosco, S. J. D**	2013	Effect of Soaking Temperature on Physical and Functional Properties of Parboiled Rice Cultivars Grown in Temperate Region of India.	*Food and Nutrition Sciences, 2013, 4, 282-288.*

Balasubramanian, S., Devi, A., Singh, K. K., &**Bosco, S. J. D.**	2013	Thermal properties of ambient ground fenugreek (Trigonellafoenum-graceum L.).	*Advances in Applied Research, 5(1), 37-42.*
Mir, S. A., **Bosco, S. J. D.** and Sunooj, K. V.	2013	Evaluation of physical properties of rice cultivars grown in the temperate region of India.	*International Food Research Journal 20(4): 1521-1527 (2013).*
Cynthia. S. J. and **Bosco S.J.D.**	2013	Process Optimization for Tamarindus Indica. L Pulp Extraction Using Response Surface Methodology.	*Food Science, 2 (4), (2013) ISSN: 2277-8179.*
Bhol, S., &**Bosco, S. J. D.**	2014	Influence of malted finger millet and red kidney bean flour on quality characteristics of developed bread.	*LWT - Food Science and Technology 55 (2014) 294-300.*
Mir, S. A., &**Bosco, S. J. D.**	2014	Cultivar difference in physicochemical properties of starches and flours from temperate rice of Indian Himalayas.	*Food Chemistry 157, 448–456.*
Padmaja, N., &**Bosco, S. J. D.**	2014	Preservation of jujube fruits by edible Aloe vera gel coating to maintain quality and safety.	*Indian Journal of Science Research and Technology, 2(3), 79-88.*
Agarwal, R. K., &**Bosco, S. J. D.**	2014	Effect of extraction processes on physiochemical properties and antioxidant activity of virgin coconut oil.	*Journal of Plantation Crops (India). 42(3).*

Agarwal, R. K., &**Bosco, S. J. D.**	2014	Effect of Extraction Processes on Antioxidant Activity of Virgin Coconut Oil.	*Indian Journal of Nutrition and Dietitics., 51, 408*
Agarwal, R. K., &**Bosco, S. J. D.**	2014	Optimization of Aqueous Enzymatic Extraction of Virgin Coconut Oil through Coconut Milk.	*Journal of Lipid Science and Technology,46 (2).*
Agarwal, R. K., &**Bosco, S. J. D.**	2014	Optimization of viscozyme-l assisted extraction of coconut milk and virgin coconut oil	*Asian Journal of Dairy & Food Research. 33 (4) : 276-284*
Shah, M. A., **Bosco, S. J. D.,**& Mir, S. A.	2014	Plant extracts as natural antioxidants in meat and meat products.	*Meat science, 98(1), 21-33.*
Manonmani, D., Bhol, S., &**Bosco, S. J. D.**	2014	Effect of Red Kidney Bean (Phaseolus vulgaris L.) Flour on Bread Quality	*Open Access Library Journal 1, 1-6*
Santhalakshmy, S., **Bosco, S. J. D**., Francis, S., &Sabeena, M.	2015	Effect of inlet temperature on physicochemical properties of spray-dried jamun fruit juice powder.	*Powder Technology 274 37–43.*
Mir, S. A., **Bosco, S. J. D.**, Shah, M. A., Mir, M. M., &Ganai, S. A.	2015	Rice: Parboiling and milling properties.	*International journal of food engineering, 11(6), 777-787*
Mir, S. A., **Bosco, S. J. D.**, Shah, M. A., Mir, M. M., & Sunooj, K. V.	2015	Effect of gamma irradiation on physicochemical properties of brown rice.	*International journal of food engineering, 11(4), 563-571.*

Cynthia, S. J., **Bosco S. J. D.,**& Bhol, S.	2015	Physical and Structural Properties of Spray Dried Tamarind (Tamarindusindica L.) Pulp Extract Powder with Encapsulating Hydrocolloids	*International Journal of Food Properties, 18(8), 1793-1800.*
Padmaja, N., **Bosco, S. J. D.,**& Rao, J. S	2015	Physico chemical analysis of sapota (ManilkaraZapota) coated by edible aloe vera gel.	*International Journal of Applied Sciences and Biotechnology, 3(1), 20-25.*
Shah, M. A., **Bosco, S. J. D.,**& Mir, S. A.	2015	Effect of Moringa oleifera leaf extract on the physicochemical properties of modified atmosphere packaged raw beef.	*Food packaging and shelf life 3, 31 – 38*
Mir, S. A., **Bosco, S. J. D.,** Shah, M. A., & Mir, M. M.	2016	Effect of puffing on physical and antioxidant properties of brown rice.	*Food chemistry, 191, 139-146.*
Mir, S. A., **Bosco, S. J. D.,** Shah, M. A., Mir, M. M., & Sunooj, K. V.	2016	Variety difference in quality characteristics, antioxidant properties and mineral composition of brown rice.	*Journal of Food Measurement and Characterization, 10(1), 177-184.*
Mir, S. A., **Bosco, S. J. D**., Shah, M. A., Mir, M. M., & Sunooj, K. V.	2016	Process optimization and characterization of popped Brown Rice.	*International journal of food properties, 19(9), 2102-2112.*

Mir, S. A., **Bosco, S. J. D.**., Bashir, M., Shah, M. A., & Mir, M. M.	2017	Physicochemical and structural properties of starches isolated from corn cultivars grown in Indian temperate climate.	*International journal of food properties*, *20(4)*, *821-832.*
Mir, S. A., **Bosco, S. J. D.**, Shah, M. A., Santhalakshmy, S., & Mir, M. M.	2017	Effect of apple pomace on quality characteristics of brown rice based cracker.	*Journal of the Saudi Society of Agricultural Sciences*, *16(1)*, *25-32.*
Mir, S. A., **Bosco, S. J. D.**, & Shah, M. A.	2017	Technological and nutritional properties of gluten-free snacks based on brown rice and chestnut flour.	*Journal of the Saudi Society of Agricultural Sciences.*
Shah, M. A., **Bosco, S. J. D.,** Mir, S. A., & Sunooj, K. V.	2017	Evaluation of shelf life of retort pouch packaged Rogan josh, a traditional meat curry of Kashmir, India.	*Food packaging and shelf life*, *12*, *76-82.*
Sablania, V., &**Bosco, S. J. D.**	2018	Optimization of spray drying parameters for Murrayakoenigii (Linn) leaves extract using response surface methodology.	*Powder technology*, *335*, 35-41.
Sablania, V., **Bosco, S. J. D.,**Rohilla, S., & Shah, M. A.	2018	Microencapsulation of Murrayakoenigii L. leaf extract using spray drying.	*Journal of Food Measurement and Characterization*, 1-10.

Sablania, V., **Bosco, S. J. D**., Ahmed, T., &Sarma, V. V.	2019	Antimicrobial and antioxidant properties of spray dried Murrayakoenigii leaf powder.	*Journal of Food Measurement and Characterization*, 1-10.
Sablania, V., **Bosco, S. J. D.,**&Rohilla, S.	2019	Effect of Extraction Temperature and Different Carrier Agents on Physicochemical and Antioxidant Properties of Spray-Dried Murrayakoenigii (Linn.) Leaf Extract.	In *Advances in Plant & Microbial Biotechnology* (pp. 85-93). Springer, Singapore.

C. Books authored:

1	Rajagopal, V. and **S. J. D, Bosco**. 2002. Post harvest technology of coconut. In: Sustainable production and utilization of coconut. (Eds.) H. P. Singh and M. T. Mathew. Published by The Coconut Development Board, Kochi. pp 12-21.
2	**Bosco, S. J. D. 2003**. State of art technologies for processing of coconut based niche products. In: New approaches to product diversification, value addition and global marketing of coconut products. pp138 – 154.
3	**Bosco, S.J.D.** 1998. Coconut based beverages. In: Harvest and Post Harvest Technology of Plantation Crops. (Eds.) Bosco, S. J. D., C.V. Sairam, K. Muralidharan and C.H. Amarnath. 1998. p29-38.
4	**Bosco, S.J.D.** 1998. Coconut shell made products. In: Harvest and Post Harvest Technology of Plantation Crops. (Eds.) Bosco, S. J. D., C.V. Sairam, K. Muralidharan and C.H. Amarnath. 1998. p54 -60
5	**Bosco, S.J.D.,** C.V. Sairam, and T. Vidhan Singh. 2000. Post Harvest Technology of Horticultural Crops of Konkan Region. CPCRI, Kasaragod. 137 p.
6	Arulraj, S, V. Rajagopal, C.V. Sairam, P. Anithakumari, R. Dhanapal, **SJD Bosco**, K. Sukumaran, S. Naresh Kumar, GV Thomas, Vinayak Hegde, PM

	Kumaran and VA Parthasarathy. 2001. Coconut Community in India – A profile. 68 p.
7	**Bosco, S.J.D.** 2000. Post harvest technology of Arecanut. In : Post harvest technology of horticultural crops of Konkan Region. (Eds) Bosco, S. J. D. et. al. p 37-44.
8	**Bosco. S. J. D.** 2005. Weather in relation to processing. In: Value addition to weather data – advisory service to farmers. (Eds.) V. Rajagopal and S. Naresh Kumar. Pp 76 – 84.

D. Books edited:

1	**Bosco, S.J.D.,** C.V. Sairam, and T. Vidhan Singh. 2000. Post Harvest Technology of Hort. Crops of Konkan Region. CPCRI, Kasaragod. 137 p.
2	Arulraj, S, V. Rajagopal, C.V. Sairam, P. Anithakumari, R. Dhanapal, **SJD Bosco**, K. Sukumaran, S. Naresh Kumar, GV Thomas, Vinayak Hegde, PM Kumaran and VA Parthasarathy. 2001.Coconut Community in India – A profile. CPCRI, Kasaragod. 68 p.
3	**Bosco, S.J.D.**, C.V. Sairam, K. Muralidharan and C.H. Amarnath. 1998.Harvest and Post Harvest Technology of Plantation Crops. 184 p.

E. Bulletins:

1	C. V. Sairam, **SJD Bosco,** S. Arulraj, V, Rajagopal, C. Thamban and K Samsudeen. 2003. Developing sustainable coconut based income generating technologies in poor coconut communities – Ariyankuppam coconut community.
2	**Bosco, S. J. D.** 2004. Snow ball tender nut. In: Income generation through different coconut products (Mal.). (Eds.) C. Thamban, S. J. D. Bosco and S. Arulraj, CPCRI. Kasaragod. pp 1-2
3	**Bosco, S. J. D.,** G. V. Thomas and N. V. Hema. 2004. Coconut chips:A new product from coconut. In: Income generation through different coconut products (Mal.). (Eds.) C. Thamban, S. J. D. Bosco and S. Arulraj, CPCRI. Kasaragod. pp 1-2

4	**S.J.D.Bosco,**C.Thamban, S.Arulraj, M.S.Rajeev, C.V.Sairamand Bindu Chandran, "Coconut Chips" (In Malayalam), 2004, Central Plantation Crops Research Institute, Kasaragod.
5	Madhavan, K and **SJD Bosco**. 1994. Copra Dryer. 15 p.
6	**Bosco, SJD** and NeelofarIlliaskutty. 2001. Methods of preparation of diversified products of coconut. 21p.
7	Madhavan, K., **Bosco, SJD** and T. Vidhan Singh. 2001. Copra dryers. 10 p

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