	Dr. Jayraj P. Assistant Professor, Agricultural and Food Engineering Department, IIT Kharagpur	Bio-data
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- 1. Name and full correspondence address:** Jayraj P., Room No. AQ 222, Agricultural and Food Engineering Department, IIT Kharagpur, West Bengal, India. Pin-721302
- 2. Email (s) and contact number (s):** jayrajp@agfe.iitkgp.ac.in
- 3. Institution:** Indian Institute of Technology (IIT) Kharagpur, West Bengal, India
- 4. Date of Birth:** 27.07.1992
- 5. Gender (M/F/T):** Male
- 6. Category Gen/SC/ST/OBC:** General
- 7. Whether differently abled (Yes/No):** No

8. Academic qualifications

Degree / Examination	Year	Subject/Specialization	University / Institution	Division / Class	% of Marks
Ph. D.	2021	Aquacultural Engineering	IIT Kharagpur	1 st Class	-
M. Tech.	2016	Aquacultural Engineering	IIT Kharagpur	Distinction	85.90
B. Tech.	2014	Agricultural Engineering	University of Agricultural Sciences, Raichur	Distinction	82.90

8.1. Other qualifications

Degree / Examination	Year	Subject	University / Institution	Division / Class	% of Marks
National Eligibility Test (NET)	2017	Agricultural Structures and Environmental Management	Agricultural Scientists Recruitment Board (ASRB) – National Eligibility Test (NET)	Qualified	-

Graduate Aptitude Test for Engineering (GATE)	2014	Agricultural Engineering	IIT Kharagpur and MHRD	-	AIR 58
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9. Ph.D. details

Ph.D. thesis title	Development of a small-scale fish filleting machine for rohu fish (<i>Labeo rohita</i>)
Guide's name	Prof. Rajendra Machavaram
Institute	Indian Institute of Technology Kharagpur
Year of award	2021

10. Work experience

S. No.	Positions held	University / Organization	From	To	Payscale (Rs.)
1.	Assistant Professor	Indian Institute of Technology (IIT) Kharagpur	05.04.2024	Till date	1,01500-1,67400
	Faculty advisor (B.Tech)				
	Assistant Warden (Boy's hostel)				
2.	Assistant Professor cum Junior Scientist	College of Fisheries Science, Gumla, Birsa Agricultural University, Jharkhand	14.12.2020	04.06.2023	15,600-39,100
	Assistant Librarian				
	Deputy Warden (Boy's hostel)				

11. Professional recognition/award/prize/certificate, fellowship received

S. No.	Name of the award	Awarding agency	Year
1.	GATE scholarship and fellowship for Joint M.Tech-Ph.D at IIT Kharagpur	Ministry of Human Resource Development (MHRD)	2014 to 2020
2.	Merit scholarship	University of Agricultural Sciences, Raichur	2012 to 2014

12. Publications (List of papers published in SCI journals)

S. No.	Author (s)	Title	Journal	Volume	Page	Year
1.	Jayraj P., Sridhar Sahoo, Prasanta Jana, and Ritu Prem	CFD-Optimised Solar-Powered IoT Integrated Paddlewheel Aerator for Sustainable Shrimp Farming	Aquacultural Engineering	111	102853	2025
2.	Jayraj P., Machavaram R., Prasanta Jana, Gourav Sahu and Vikas Paradkar	Development and testing of a small-scale fish filleting machine for carp, rohu (Labeo rohita)	Journal of Aquatic Food Product Technology	33 (9)	747-764	2024
3.	Prem, R., Tewari, V. K., Das, S., Maiti, J., Jayraj, P. and Pareek, C. M.	Response surface optimisation of feed rate for a drum-type feed metering unit developed for feeding in aquaculture	Discover Agriculture	2 (1)	34	2024
4.	Roy, S. M., Jayraj, P., Machavaram, R., Pareek, C. M., & Mal, B. C.	Diversified aeration facilities for effective aquaculture systems—a comprehensive review	Aquaculture International	29	1181 - 1217	2021
5.	Jayraj P., Rajendra Machavaram, Gourav Sahu and Vikas Paradkar	Measurement of Morphometric Dimensions and Mechanical Properties of Rohu Fish for Design of Processing Machines	Journal of Aquatic Food Product Technology	28 (2)	150-164	2019
6.	Jayraj P., S. M. Roy.,	Design Characteristics of	Turkish Journal of	18 (9)	1017-1023	2018

	C. K. Mukherjee, & B. C. Mal	Submersible Aerator	Fisheries and Aquatic Sciences			
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13. Details of patents

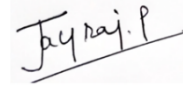
S. No.	Patent title	Name of Applicants (s)	Patent/ Application No.	Award Date	Agency/Country	Status
1.	A small-scale fish filleting machine for Indian Major Carps	Jayraj P., R. Machavaram and P.S. Rao	202431051806	--	India	Pending
2.	Fish filleting machine	Jayraj P., Gourav Sahu and R. Machavaram	429648-001	--	India	Granted

14. Books/Reports/Chapters/General articles etc.

S. No.	Title	Author's Name	Publisher	Year of Publication
1.	State-of-the-Art Review on Ammonia-Based Diesel Engines	Sridhar Sahoo, Akshay Kumar, Jayraj P., and Dhananjay Kumar Srivastava	Springer Nature Singapore	2025
2.	AQUABOTICA: An AI-Driven Chatbot Solution for Real-Time Decision Support in Smart Aquaculture and Fisheries	Abhi Khade Machindra, Jayraj P., Ambuj Pathak, and Prasanta Jana	Copyright Office, Government of India	2025

15. Additional information

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Date: 02.12.2025

(Signature of PI)