

CURRICULUM VITAE

Name : Dr. Soumya Ranjan Jena

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Permanent Address : Plot No-3E/474, Sector-9, CDA, Post-Markatnagar, Cuttack-753014, Odisha, India

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Educational / Professional Qualifications:

Sl. no	Qualification	Year of Passing	Institution	%age of Marks	Division/CGPA
1	High School Certificate Examination	2004	Board of Secondary Education, Odisha	83	1 st
2	Higher Secondary Examination (+2 Science)	2006	Council of Higher Secondary Education, Odisha	61.11	1 st
3	B. Tech (Computer Science & Engineering)	2010	Biju Patnaik University of Technology, Odisha (G.H.I.T.M, Puri)		6.39 CGPA
4	Diploma in "Computer Hardware & Network Management" (DCHNM)	2011 (Dec 2010- Feb 2011)	Central Tool Room & Training Centre (CTTC) under MSME, Govt. Of India	Entrepreneur Skill Development Programme- Sponsored By MSME.	Successfully
5	Cisco Certified Network Associate (CCNA)	2011 (Mar 2011- July 2011)	CISCO, San Jose, California, USA (Under CTTC, BBSR)	1 st Sem-92% 2 nd Sem-74% 3 rd Sem- 90% 4 th Sem-88%	1 st (Global Score-92%)
6	M. Tech (Information Technology)	2011-2013	Utkal University, Odisha	76.04	1 st

7	Hon. Dr. (Artificial Intelligence)	2025	Graham International University, USA		
8	PhD in (Computer Science and Engineering) (Regular Part-Time in Self-Finance Mode)	21 st August 2021- 27 th April 2026	International Management University (IMU), Cambodia	PhD Thesis Title: AI- Driven Energy-Efficient Edge Cloud Architecture with Renewable Energy Integration	PhD Awarded
9	PhD in Computer Science & Engineering	2024 – Till Today	Suresh Gyan Vihar University, Jaipur, India	PhD is going on about to submit Thesis work	

Work Experience:

Sl. No	Name of the Organization	Position Held	Duration		Total Experience
			From	To	
1	Chandigarh University, Mohali, Punjab	Assistant Professor	28/11/2025	Till Today	6 Months
1	NIMS University, Jaipur, Rajasthan	Assistant Professor	12/02/2024	17/09/2025	1 Year 7 Months
2	Mahindra University, Hyderabad, Telangana	Faculty Associate	26/09/2022	19/01/2024	1 Year 4 Months
3	Madanapalli Institute of Technology and Science (MITS), Madanapalli, A.P.	Assistant Professor	17/05/2022	20/09/2022	4 Months
4	Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science & Technology, Chennai, Tamil Nadu	Assistant Professor	26/02/2021	24/07/2021	6 Months
5	Galgotias University, Greater Noida, Uttar Pradesh	Assistant Professor	31/08/2019	07/09/2020	1 Year
6	Gandhi Institute for Technological Advancement (GITA),BBSR, Odisha	Assistant Professor	02/07/2018	23/07/2019	1 Year
7	K L Deemed to be University, Guntur, Andhra Pradesh	Assistant Professor	27/06/2016	29/06/2018	2 Years
8	AKS University, Satna, Madhya Pradesh	Assistant Professor	21/10/2013	01/11/2015	2 Years
Total Experience (In Years)					10 Years +

Publication of International Books:

- ❖ **SMART INNOVATIONS FOR CLIMATE RESILANCE, FOREST SUSTAINABILITY AND GREEN ECONOMY**, SRJX RESEARCH AND INNOVATION LAB LLP, ISBN: 9788198839213, Dec. 2025.
- ❖ **AGENTIC AI 360° FOUNDATIONS, ARCHITECTURES, AND FUTURES**, SRJX RESEARCH AND INNOVATION LAB LLP, ISBN: 9788198839237, Aug, 2025.
- ❖ **Artificial Brain and Simulation**, SRJX RESEARCH AND INNOVATION LAB LLP, ISBN: 9788198839244, July 2025.
- ❖ **AI Applications in Psychology**, SRJX RESEARCH AND INNOVATION LAB LLP, ISBN: 9788198839206, June 2025.
- ❖ **How to Crack Tech Interviews in the Era of AI?** SRJX RESEARCH AND INNOVATION LAB LLP, ISBN: 9788198839268, June 2025.
- ❖ **Neuromorphic Computing & Its Transformative Applications**, Doctorate International Publication, NextGen University International, USA, 2025, ISBN: 9788197284991, April 2025.
- ❖ **EGDE AI: A Potential Game Changer**, Doctorate International Publication, NextGen University International, USA, 2025, ISBN: 9788197284908, April 2025.
- ❖ **Next-Generation Computing- Convergence of Edge AI, 7G/8G, Brain Computer Interface**, Doctorate International Publication, NextGen University International, USA, 2025, ISBN: 9788197284946, April 2025.
- ❖ **Integrated Chip Design using Artificial Intelligence**, Doctorate International Publication, NextGen University International, USA, 2025, ISBN: 9788197284915, April 2025.
- ❖ **Smart Grids and Renewable Energy**, Xoffencer International Publication, 2025, ISBN: 9789348116536, Feb 2025.
- ❖ **Operating System Question Bank with Answers: A Comprehensive Handbook**, Independently Published (Amazon KDP), ISBN: 9798345587119, November 2024.
- ❖ **Natural Language Processing (NLP) for Sentiment Analysis**, Xoffencer International Publication 2023, ISBN: 9789348116611, Nov 2024.
- ❖ **Machine Learning in Bioinformatics**, Xoffencer International Publication 2023, ISBN: 9789348116123, Nov 2024.
- ❖ **Sustainability in Green Cloud Computing**, Lambert Academic Publishing, ISBN: 9786207653386, June 2024.
- ❖ **Defensive Cyberspace: Navigation the Landscape of Cyber Security**, Notion Press, ISBN: 9798892337151, Jan 2024.
- ❖ **Cyber Security using Data Structures**, Notion Press, ISBN: 9798892770194, Jan 2024.
- ❖ **AI-Driven Cyber Security Navigating the Digital Frontier with Deep Learning**, Scholars' Press, ISBN: 9783659840784, Jan 2024.
- ❖ **6G Technology and Its Applications**: Xoffencer International Publication 2023, ISBN: 9788119534340, Nov 2023.
- ❖ **5G Technology and Its Applications**: - Xoffencer International Publication, ISBN: 9788119534227, Sept. 2023.
- ❖ **Data Structures for Modern Applications**: Xoffencer International Publication, 2023, ISBN: 9788119534548.

- ❖ **C Programming Mastery- Job Interview Oriented Preparation**- Xoffencer International Publication, 2023, ISBN: 9788119534616.

- ❖ **Cisco Packet Tracer Implementation: Building and Configuring Networks**, ISBN: 9798398061505, Independently Published (Amazon KDP), Google. E-Books-GGKEY: PTNBL87JA8E, 2nd June 2023, DOI: 10.5281/zenodo.8041398.
- ❖ **Cloud Computing: A Comprehensive Overview of Concepts, Technologies and Architectures**, ISBN: 9789394707818, Xoffencer International Publication, June 2023.
- ❖ **Research Methodology: Theory and Techniques**- ISBN: 9789394707832, Xoffencer International Publication, May 2023.

- ❖ **Machine Learning Concepts for Beginners- Theory and Applications**- ISBN: 9786205520673, Scholar's Press, 2023.
- ❖ **Internet of Things (IoT)- Theory and Applications**- ISBN: 9786205520420, Scholar's Press, 2022.

- ❖ **Mastering Artificial Intelligence and Machine Learning**- ISBN: 9786205519851, Lambert Academic Publishing, 2022.

- ❖ **Software Requirements and Estimation**- ISBN: 9786205515600, Lambert Academic Publishing, 2022.
- ❖ **Fundamentals of Problem Solving and Python Programming**, ISBN: 9786205515617, Lambert Academic Publishing, 2022.
- ❖ **Introduction to Augmented Reality Hardware**- ISBN: 979-8847191791, Amazon.com, 2022.

- ❖ **Introduction to Quantum Computing and Machine Learning Technologies**- ISBN: 979-8201626808, Amazon.com, 2022.
- ❖ **Mastering Disruptive Technologies- Applications of Cloud Computing, IoT, Blockchain, Artificial Intelligence and Machine Learning Techniques**”, H P Hamilton Limited, U.K, ISBN: 978-1-913936- 23-5, 2021.

❖ **Theory of Computation and Application (2nd Edition)**- University Science Press, Laxmi Publications Pvt. Ltd, New Delhi, ISBN: 978- 81-86202- 15-4, 2020.

- ❖ **Design and Analysis of Algorithms-** University Science Press, Laxmi Publications Pvt Ltd, New Delhi, ISBN: 978-93-5274-311-7, 2018.
- ❖ **Digital Electronics for Beginners-** ISBN: 9798201885328, Draft2Digital LLC, 2022.
- ❖ **Microprocessor and Microcontroller-**, ISBN: 9798351522777, Amazon.com, 2022.

Patents/ Copyright/Design Filed/Granted/Registered:

- ❖ Title of the Invention: **Computer Implemented Method for Urban Traffic Management using Machine Learning**, 22nd November 2019, Application No- 201911046972 A. (Indian Government Patent, Published).
- ❖ Innovation Patent: **Smart Assisting Device for Deaf-Blindness to Shop at Supermarket**, 14th March 2021, Application No- 2021101326. (Australian Government Patent-Granted).
- ❖ Title of the Invention: **Artificial Intelligence and IoT Based Efficient Management of Economical Vehicles Utilized on Sharing Basis**, 23 July 2021, Application No- 202141031999 (Indian Government Patent, Published).
- ❖ Title of the Invention: **Efficient Assessment of Earthquake Damage using Deep Learning**, Application No- 202111026776 (Indian Government Patent, Published).
- ❖ Title of Copyright: **Cyber Crime Rate Prediction using Deep Learning and AI**, Registration no- 1193891, Canadian Copyright, Registered on 06th June 2022.
- ❖ Title of Copyright: **Cyber Security in 5G Wireless Communication Network Based on Deep Learning with Optimization Algorithm**, Registration no-1200055, Canadian Copyright, Registered on 08th Feb 2023.
- ❖ Title of Copyright: **Smart Fertilizer Management using Artificial Intelligence**, Diary No- 4005/2023- CO/L, Indian Copyright, Registered on 8th Jan 2024.
- ❖ Title of Patent: **A Method for Sustainable Green Energy Optimization for Edge Cloud Computing with Renewable Energy Resources**, Application No- 202341018507 (Indian Government Patent, Filed on 18th March 2023).
- ❖ Title of Patent: **Sustainable Green Energy Optimization for Edge Cloud Computing with Renewable Energy Resources**, Application Reference Number: SABLIP322 (South Africa Patent, Granted, 29th Nov. 2023).
- ❖ Title of Design: **Device to Identify Financial Loan Eligibility of a Person**, Application Reference Number: 6274741 (UK Design, Granted on 4th May 2023).
- ❖ Title of Patent: **A System for Green Energy Generation for Smart Internet of Energy (IoE) Applications Using Renewable Energy Resources**, Application No: G12155DE (Germany Utility Patent, Granted, 5th May 2023).
- ❖ Title of Design: **Wireless Laptop Charger Cum Cooling Pad**, Application No: 385882-001 (Indian Design, Registered on 9th May 2023).
- ❖ Title of Patent: **A System for Cloud Based Version of Portable Mobile Forensic Suite** (Germany Utility Patent, Granted, June 2023).
- ❖ Title of Patent: **A System to Identify Incorrect Data from Search Engine Results using Artificial Intelligence and Machine Learning Techniques**, (Germany Utility Patent, Granted, 29th Sept. 2023).
- ❖ Title of Patent: **System for Protecting and Providing Safety Against Harassed Women in Society**, (Germany Utility Patent, Granted, June 2023).
- ❖ Title of Patent: **A System for How to Read Human Mind using AI and ML Techniques**, (Germany Utility Patent, Granted, 23rd June 2023).

- ❖ Title of Patent: **Brainwave-Based Computing Device**, UK Design Patent, Patent No. 6350175, Grant Date: 19th April 2024.
- ❖ Title of Patent: **Facial Expressions Detection Device**, UK Design Patent, Patent No. 6397537, Grant Date: 16th October 2024.
- ❖ Title of Patent: **AI Based Sleep Apnea Detecting Device**, UK Design Patent, Patent No. 6379337 Grant Date: 26th July 2024.
- ❖ Title of Patent: **On-Demand IOT Based 6G Sim Card**, Indian Patent, Application No- 202411073606, Published.
- ❖ Title of Patent: **Smart Based Bio-Computer Designing**, Indian Patent, Application No- 202411073714, Published.
- ❖ Title of Patent: **Slicing System For Six Generation Networks**, Indian Patent, Application No- 202411075499 A, Published.
- ❖ Title of Patent: **System for Automaton Using AI And ML Techniques**, Indian Patent, Application No- 202411075499 A, Published.
- ❖ Title of Patent: **Nutrient Detection Device**, Indian Patent, Application No- 202411082591, Filed.
- ❖ Title of Patent: **Explosive Detecting Device**, Indian Patent, Application No- 202411082592, Filed.
- ❖ Title of Patent: **An Energy Management System for Under Sea Communications**, South Africa, Patent No. 2024/07435, Granted, 30th April 2025.
- ❖ Title of Patent: **A Mobile Communication Device Integrated with Solar Panels and Solar Control Glass**, South Africa, Patent No. 2024/07482, Granted, 30th April 2025.
- ❖ Title of Patent: **Artificial Intelligence Based Multi Modal Lie Detection System and Method for Enhanced Deception Detection**, Application No- 202511005631, Indian Patent, Published.
- ❖ Title of Patent: **Energy-Efficient Solar Powered Railway Station with Sustainable Green Infrastructure**, Germany, Patent No. G25033DE, Granted on 17th Feb. 2025.
- ❖ Title of Patent: **Facial Expressions Detecting Device for Preventing Suicidal Tendency**, Germany, Patent No. G25035DE, Granted on 17th Feb. 2025.
- ❖ Title of the Patent: **AI-Powered Smart Traffic Light System with Blue Light for Real-Time Congestion Detection, V2X Communication and Sustainable Energy Solution**, Application No. 202511019033, Indian Patent, Published, April 2025.
- ❖ Title of the Patent: **AI-Powered Adaptive Fuel Injection Optimization (AFAIO) System for Real-Time Driving and Environmental Condition Optimization**, Application No. 202511039673, Indian Patent, Published, May 2025.
- ❖ Title of the Patent: **ADAPTIVE AI WOUND HEALING MONITORING SYSTEM**, Application No. 202531073838, Indian Patent, Published, Aug. 2025.
- ❖ Title of the Patent: **AI SMART INJECTION PAD**, Application No. 202531070376, Indian Patent, Published, Aug. 2025.
- ❖ Title of the Patent: **SMART MOBILE DEVICE FOR ANTI-TRACKING AND ACCEDIDENT PREVENTION**, Application No 202531079139, Indian Patent, Published, Aug. 2025.
- ❖ Title of the Patent: **ADAPTIVE AI-POWERED VOMITING PREVENTION AND MOTION SICKNESS MANAGEMENT**, Application No 202531083158, Indian Patent, Published, Sep. 2025.
- ❖ Title of the Patent: **AI-ENABLED SMART GRINDER**, Application No 202531085743, Indian Patent, Published, Sep. 2025.
- ❖ Title of the Patent: **ARTIFICIAL RAIN -GENERATING ECO-FRIENDLY TREE**, Application No 202531087336, Indian Patent, Published, Sep. 2025.
- ❖ Title of the Patent: **CONTEXT AWARE AMBIENT INTELLIGENT WEAREABLE**, Application No 202531090630, Indian Patent, Published, Sep. 2025.
- ❖ Title of the Patent: **AI-ENABLED ATM FOR INTELLIGENT TRANSACTION MANAGEMENT AND ENHANCED SECURITY**, Application No 202531092284, Indian Patent, Filed, Sep. 2025.

- ❖ Title of the Patent: **CAUSAL MECHANISM-BASED DISTRIBUTED COMPUTING ARCHITECTURE FOR EDGE AND FEDERATED ENVIRONMENTS**, Application No 202531094304, Indian Patent, Published, Oct. 2025.
- ❖ Title of the Patent: **AI ORCHESTRATED BIOMANUFACTURING SYSTEM FOR CELLULOSE BASED PACKAGING AND ENERGY VALORIZATION FROM HETEROGENEOUS COW DUNG**, Application No 202531098043, Indian Patent, Published, Oct. 2025.
- ❖ Title of the Patent: **SMART WEARABLE SYSTEM FOR WILDLIFE THREAT PREDICTION, ALERT AND DETERRING ATTACKS**, Application No 202531095536, Published, Indian Patent, Oct. 2025.
- ❖ Title of the Patent: **ADAPTIVE MULTI-PATH MESSAGING SYSTEM WITH AI-DRIVEN ROUTING AND SELF-SOVEREIGN ENCRYPTION**, Application No 202531098341, Published, Indian Patent, Oct. 2025.
- ❖ Title of the Patent: **AUTONOMOUS AI MEDICAL DIAGNOSIS AND TREATMENT POD**, Application No. 202531102257, Published, Indian Patent, Oct. 2025.
- ❖ Title of the Patent: **ARTIFICIAL SUPERINTELLIGENCE- BASED RAILWAY STATION PLATFORM**, Application No 202531105974, Published, Indian Patent, Nov. 2025.
- ❖ Title of the Patent: **AI BASED SMART STANDING FAN**, Application No. 202531108913, Published, Indian Patent, Nov. 2025.
- ❖ Title of the Patent: **NEUROMORPHIC SUPER-INTELLIGENT SMART WATCH**, Application No. 202531117121, Published, Indian Patent, January 2026.
- ❖ Title of the Patent: **ARTIFICIAL SUPER-INTELLIGENCE (ASI) BASED NEUROMORPHIC SMART REFRIGERATOR**, Application No. 202631018813, Published, Indian Patent, March 2026.
- ❖ Title of the Patent: **ARTIFICIAL SUPER-INTELLIGENCE (ASI) BASED NEUROMORPHIC AUTONOMOUS DRONE SYSTEM**, Application No. 202631013668, Published, Indian Patent, March 2026.
- ❖ Title of the Patent: **ARTIFICIAL SUPER INTELLIGENCE (ASI) BASED CRIME PREDICTION AND PREVENTION SYSTEMS**, Application No. 202631033028, Published, Indian Patent, March 2026.
- ❖ Title of the Patent: **AN EXAM-SAFE OFFLINE ARTIFICIAL INTELLIGENCE (AI)-ENABLED ELECTRONIC COMPUTING DEVICE AND METHOD THEREOF**, Application No. 202631050972, Published, Indian Patent, May 2026.

Publication of Research Papers: (International Conferences- Scopus Indexed)

- ❖ Bhushan Dewan and Soumya Ranjan Jena, “**The State-of-the-Art of Social, Mobility, Analytics and Cloud Computing- An Empirical Analysis**”, IEEE, ICHPCA-2014, Bhubaneswar, December 22-24, 2014.
- ❖ Soumya Ranjan Jena and Bhushan Dewan, “**Improving Quality of Service Constraints of Cloud Data Centers**”, IEEE, INDIACom- 2015, New Delhi, pp. 209-214, March 12, 2015.
- ❖ Soumya Ranjan Jena, Swagatika Tripathy, Tarini Prasad Panigrahy, Mamata Rath, “**Comparison of Different Task Scheduling Algorithms in Cloud Computing Environment using Cloud Reports**”, Smart Intelligent Computing and Applications- Proceedings of the 3rd International Conference on Smart Computing and Informatics, Volume 1, Springer, KIIT University, Bhubaneswar, Dec 21-22, 2018, Odisha.
- ❖ Bhushan Dewan, Soumya Ranjan Jena, Swagatika Tripathy, Sukant Kishoro Bisoy, “**ISMAC: Past, Present and Future of Digital Technology**”, International Conference on Intelligent Computing and Remote Sensing (ICICRS-2019), CVRCE, July 19-20, 2019, Bhubaneswar, Odisha.
- ❖ Soumya Ranjan Jena, Bhushan Dewan, Sukant Kishoro Bisoy, “**Performance Evaluation of Energy Efficient Power Models for Different Scheduling Algorithms in Cloud using Cloud Reports**”, GUCON-2019, September 27-29, 2019, Galgotias University, Greater Noida.
- ❖ Soumya Ranjan Jena, Raju Shanmugam, Kavita Saini, and Sanjay Kumar, “**Cloud Computing Tools: Inside Views and Analysis**”, Elsevier Procedia, Volume 173, ICITETM-2020, Feb. 04-06, 2020, Maharaja Agrasen Institute of Technology (MAIT), New Delhi.
- ❖ R.Indrakumari, T. Poongodi, and Soumya Ranjan Jena, “**Heart Disease Prediction using Exploratory Data Analysis**”, Elsevier Procedia, Volume 173, ICITETM-2020, Feb. 04- 06, 2020, Maharaja Agrasen Institute of Technology (MAIT), New Delhi.

- ❖ S. R. Jena, U. Srilakshmi and S. Mahammad Rafi, "**Intelligent Green Energy Solutions: Optimizing Renewable Energy for Edge Cloud Computing**," 2025 5th International Conference on Pervasive Computing and Social Networking (ICPCSN), Salem, India, 2025, pp. 765-769, doi: 10.1109/ICPCSN65854.2025.11035813.
- ❖ S. R. Jena and S. Agarwal, "**Energy-Efficient Edge Cloud Architectures Using AI and Renewable Energy Integration**," 2025 6th International Conference on Data Intelligence and Cognitive Informatics (ICDICI), Tirunelveli, India, 2025, pp. 725-730, doi: 10.1109/ICDICI66477.2025.11134988.
- ❖ S. R. Jena and Sohit Agarwal, "**AI-Based Sustainable Green Energy Optimization for Edge Cloud Computing with Renewable Energy Resources**," International Conference on Artificial Intelligence and Sustainable Innovation (ICAISI-2025), Suresh Gyan Vihar, University, Jaipur, India Publication: CRC Press, Taylor & Francis, doi: 10.1201/9781003654483-32.
- ❖ S. R. Jena, Swapil Raj, Sohit Agarwal, and Deo Karan Ram, "**AI in Renewable Energy Resources: Current Trends, Challenges and Future Prospects**", ICAISI-2025, Suresh Gyan Vihar University, Jaipur, India, Publication: CRC Press, Taylor & Francis, Artificial Intelligence and Sustainable Innovation, doi: 10.1201/9781003654483-90.
- ❖ S. R. Jena, Sohit Agarwal, and Madivi Meghasiri, "**Fake Image and Product Detection using Advanced Machine Learning and Deep Learning Technique**", ICAISI-2025, Suresh Gyan Vihar University, Jaipur, India, Publication: CRC Press, Taylor & Francis, Artificial Intelligence and Sustainable Innovation, doi: 10.1201/9781003654483-100.
- ❖ Kalpana Venugopal S, Hemanth Kumar, Uppalapati Srilakshmi, and S. R. Jena, "**Navigating the Digital Shift: Effective Leadership Strategies for Remote Teams in a Transformative Era**," ICAISI-2025, Suresh Gyan Vihar University, Jaipur, India, Publication: CRC Press, Taylor & Francis, Artificial Intelligence and Sustainable Innovation, doi: 10.1201/9781003731689-32.
- ❖ **S. R. Jena, Jagadeesh Kumar, Kanika Pachauri, Sagar Sharma, Ajeet Singh**, "**Machine Learning Based Hand Gesture to Text Model**", ICAISI-2025, Suresh Gyan Vihar University, Jaipur, India, Publication: CRC Press, Taylor & Francis, Artificial Intelligence and Sustainable Innovation, Volume 3, ISBN: 9781003731689.

Publication of Research Papers: (SCIE, WOS, Scopus)

1. S. R. Jena et al., "**An Innovative Secure and Privacy-Preserving Federated Learning Based Hybrid Deep Learning Model for Intrusion Detection in Internet-Enabled Wireless Sensor Networks**", IEEE Transactions on Consumer Electronics, doi: 10.1109/TCE.2024.3442015. (Impact Factor- 4.3)
2. Soumya Ranjan Jena, Sohit Agarwal, S. Sivanandam, Sridevi Gamini, Donepudi Rohini, N.V. Phani Sai kumar, "**AI-driven multiphysics modelling for optimizing fiber dispersion in thermoplastic and thermosetting polymer composites for additive manufacturing**, Thermal Science and Engineering Progress, Volume 59, 2025, 103304, ISSN 2451-9049, <https://doi.org/10.1016/j.tsep.2025.103304>. (Impact Factor- 5.1)

Publication of Research Papers: (Scopus/Web of Science/UGC Care/International Journals)

- ❖ Byeon, H., Jena, S. R., Bhargavi, K. N., Ramesh, J. V. N., Bozarboevich, A. A., Soni, M., & Shabaz, M. (2025), “**An intelligent cyber-physical system based-consensus algorithm for sustainable edge service provisioning in 6G-based IIoT applications**”, *Cyber-Physical Systems*, 1–28. <https://doi.org/10.1080/23335777.2024.2449347>
- ❖ Chunduri, V., Kumar, A., Joshi, A. Jena, S. R., *et al.* “**Optimizing energy and latency trade-offs in mobile ultra-dense IoT networks within futuristic smart vertical network**”, *Int J Data Sci Anal* (2023). <https://doi.org/10.1007/s41060-023-00477-7>
- ❖ Alghayadh, F.Y., Jena, S.R., Gupta, D. *et al.* “**Dynamic data-driven resource allocation for NB-IoT performance in mobile devices**”, *Int J Data Sci Anal* (2024). <https://doi.org/10.1007/s41060-023-00504-7>.

- ❖ Vani Rajsekhar, K Venu, Soumya Ranjan Jena, R. Janani Vartthini, S. Iswaraya, “**Detection of Cotton Plant Diseases using Deep Transfer Learning**”, Journal of Mobile Multimedia, Volume 18, Issue 2, Nov 2021.
- ❖ Soumya Ranjan Jena, Ashok Kumar Yadav, Shrikant Patel, CH M H Saibaba, “**Analysis on Mobile Cloud Security and Comparison of Existing Models**”, IJCSE, Vol 12, Issue 3 (2021), pp. 580-590.
- ❖ S.N. Manoharan, Soumya Ranjan Jena, A. Ilavendhan, “**Euclidean Distance Based Similarity Measurement and Ensuing Ranking Scheme for Document Search from Outsourced Cloud Data**”, Turkish Journal of Computer and Mathematics Education, Vol.12 No.3 (2021), 4386-4395.
- ❖ Alina Tommy, Shrikant Patel, Soumya Ranjan Jena, Thirunavukkaerasu N, Sanjay Kumar, “**The Impact of Covid-19 Pandemic on Global Education**”, Solid State Technology, Volume 63, Issue 2S, November 2020, pp. 2224-2234.
- ❖ Soumya Ranjan Jena, Stephen Dass A, Raju Shanmugam, Dumanlal Sethi, “**Preparing Network for the Multi-Cloud World**, IJFGCN, Volume 13, Issue 3, May 2020, pp 2219- 2232.
- ❖ Soumya Ranjan Jena, Raju Shanmugam, Adarsh Tyagi, Rajesh Kumar Patjoshi “**Implementation of Voice Recognized LED using Arduino Uno**”, IJFGCN, Volume 13, Issue 3, May 2020, pp 2233-2241.
- ❖ Raju Shanmugam, Rajesh Kumar Patjoshi, Soumya Ranjan Jena, Vishvaketan Gaur, “**Desktop Assistant Based on Voice Recognition and Face Detection**, IJGDC, Volume 13, Issue 1, July2020,

pp. 2020-2030.

- ❖ Saatvik Awasthi, Raju Shanmugam, Soumya Ranjan Jena, and Atul Srivastava, “**Review of Techniques to Prevent Fake Accounts on Social Media**”, IJAST, Volume 29, Issue 4, July 2020, pp. 8350-8365.
- ❖ Soumya Ranjan Jena, Raju Shanmugam, Rajesh Kumar Dhanaraj, Kavita Saini, “**Recent Advances and Future Research Directions in Edge Cloud Framework**”, IJEAT, Volume-9, Issue-2, December 2019, pp 439-444.
- ❖ Soumya Ranjan Jena, V. Vijayaraja and Aditya Kumar Sahu, “**Performance Evaluation of Energy Efficient Power Models for Digital Cloud**”, IJST, Vol9(48), Dec 2016.

- ❖ Soumya Ranjan Jena and L. Sridhara Rao. “**A Study on Energy Efficient Task Scheduler over Three-Tier Cloud Architecture using Green Cloud**”, JARDCS, Vol. 9, Issue No-18, Dec 2017, ISSN: 1943-023X.
- ❖ Soumya Ranjan Jena, D. Raghava Lavanya and Sai Sudha Gadde, “**Minimization of Execution Time over Cloud Computing Environment using Fuzzy Technique**”, JARDCS, Vol. 9, Issue No-18, Dec 2017, ISSN: 1943-023X.
- ❖ Raju Shanmugam, Soumya Ranjan Jena, Vishvaketan Gaur, “**College Information Chat-Bot System Based on Natural Language Processing**”, Journal of Xidian University, Vol. 14, Issue 5, May 2020, ISSN: 1001-2400.
- ❖ Soumya Ranjan Jena, Dhruv Saini and Munish Sabharwal, “**Personal Edge Cloud Using Raspberry Pi**”, Journal of Xidian University, Vol. 14, Issue 5, May 2020, ISSN: 1001-2400.
- ❖ Soumya Ranjan Jena, Raju Shanmugam, and Chirag Singhal “**Content Management System-Evolution and Uses**”, Journal of Xidian University, Vol. 14, Issue 5, May 2020, ISSN: 1001-2400.
- ❖ Soumya Ranjan Jena and Zulfikhar Ahmad, “**Response Time Minimization of Different Load Balancing Algorithms in Cloud Computing Environment**”, IJCA (0975 – 8887), Volume-69, No-17, May 2013 edition.
- ❖ Soumya Ranjan Jena, “**Bottle-Necks of Cloud Security-A Survey**”- IJCA, Vol 85, No 12, January, 2014.
- ❖ Soumya Ranjan Jena, Sudarshan Padhy, and Balendra Kumar Garg, “**Performance Evaluation of Load Balancing Algorithms on Cloud Data Centers**”, IJSER, Vol. 5, Issue 3, March 2014, ISSN: 2229-5518.
- ❖ Soumya Ranjan Jena and Sudarshan Padhy, “**Minimizing CO2 Emissions on Cloud Data Centers**”, IJSER, Vol. 5, Issue 4, April 2014, ISSN: 2229-5518.

PhD Publication Weblinks:

Thesis : AI-Driven Energy-Efficient Edge Cloud Architecture with Renewable Energy Integration, DOI: <https://doi.org/10.5281/zenodo.19893685>.

PhD Research Paper 1: Digital Twin-Enhanced AI Framework for Net-Zero Edge-Cloud Energy Optimization, DOI: <https://doi.org/10.5281/zenodo.19892997>.

PhD Research Paper 2: FL-XAI-ER: Federated Learning with Explainable AI For Energy-Renewable Edge Cloud Computing, DOI: <https://doi.org/10.5281/zenodo.20109457>.

Subjects Taught (at UG/PG level: B.Tech / M.Tech CSE, BCA, B.Sc IT):

- ❖ Data Communication and Computer Networking with Cisco
- ❖ Cloud Computing and Virtualization
- ❖ Theory of Computation
- ❖ Design and Analysis of Algorithms
- ❖ Data Structures using C
- ❖ Machine Learning
- ❖ Artificial Intelligence
- ❖ Computer Hardware and Maintenance
- ❖ Big Data Analytics
- ❖ Mobile Computing
- ❖ Data Structures with Algorithms
- ❖ Graph Theory
- ❖ ERP and E-Commerce
- ❖ Internet of Things (IoT)
- ❖ Management Information System
- ❖ Computer Security and Cryptography
- ❖ Computer Basics

Other Academic Activities Handled:

- ❖ Research coordinator of AWS, Cloud and Distributed Computing at Galgotias University.
- ❖ Prepared the scheme and curriculum for AWS for Course Curriculum on AWS Cloud Computing at Galgotias University.
- ❖ Prepared the scheme and syllabus for B.Sc IT, BCA, MCA, B.Tech CSE at University level.
- ❖ Set semester question papers and evaluated answer scripts at University level.
- ❖ Prepared necessary documents (such as subject wise lecture plan, teaching diary, departmental research file, project reports etc)for UGC inspection at University level.
- ❖ Implemented NPTEL, MOOC (Massive Open Online Courses) Programme at University level for different courses like BCA/ B.Sc IT/ MCA/ B.Tech CSE.
- ❖ Handled project work & provided instructions in lab.

Workshops / Seminars / Symposiums / Short Courses / Trainings Attended/Organized:

Sl. No	Seminars / Symposiums / Short Courses / Trainings
1	Attended the Faculty Development Program on “ SOFT COMPUTING ” by NITTTR, Chandigarh at AKS University from 11/11/13 to 15/11/13.
2	Attended the FDP program on “ CONTENT DEVELOPMENT ” by NITTTR, Bhopal on 03/01/2013 and 04/01/2013 at AKS University, Satna.
3	Attended the National Workshop on “ STATISTICAL DATA ANALYSIS ” by IBM, SPSS, at AKS University, Satna.
4	Attended the FDP program on “ INTELLECTUAL PROPERTY RIGHTS ” by NITTTR, Chandigarh at AKS University from 21/04/2014 to 25/04/2014.
5	Attended the Workshop on “ COMPUTER NETWORKING AND CCNA ” by NITTTR, Chandigarh at AKS University from 19/05/2014 to 23/05/2014.
6	Attended the Workshop on “ COMPUTATIONAL INTELLIGENCE, WCI-2014 ” at School of Computer Engineering, KIIT University, Bhubaneswar from 24/06/2014 to 28/06/2014.
7	Attended the National Workshop on “ BIG DATA ANALYSIS, NWBDA-2014 ” at School of Computer Engineering, KIIT University, Bhubaneswar from 24/11/2014 to 30/11/2014.
8	Attended an FDP at NITTTR Chandigarh on “ Cloud, Fog And Edge Computing ” at CSE Department, NITTTR, Chandigarh from 14/04/2020 to 18/04/2020.
9	Attended an FDP at NITTTR Chandigarh on “ Internet Of Things ” at CSE Department, NITTTR, Chandigarh from 15/04/2020 to 19/04/2020.
10	Attended an FDP at NITTTR Chandigarh on “ BIG DATA ANALYTICS ” at CSE Department, NITTTR, Chandigarh from 18/05/2020 to 22/05/2020.
11	Attended FDP at Jawaharlal Nehru University on “ CYBER SECURITY ” from 26/05/2020 to 30/05/2020.
12	Attended Workshop on “ UK India Workshop on Enhancing Employability for Higher Education graduates in Industry 4.0 (IoT, Digital Twin, Wireless Communication) ” on Friday, 15th July 2022 (Blended Mode) Hosted by Indian Institute of Information Technology (IIIT), Sri City, AP, India and Middlesex University, UK
13	Attended FDP at Vardhaman College of Engineering (Autonomous) on “ Amazon Web Services ”, from 22nd August 2022 to 27th August 2022.

Reviewer of International Conferences/Journals:

- ❖ 11th International Conference on Electronics, Communications and Networks (CECNet2021), 18-21 Beijing, China.
- ❖ International Journal of Communication Systems (Wiley).
- ❖ ICCIS 2022, Sharda University, Greater Noida, U.P., 2022.
- ❖ International Journal of Computing and Digital Systems (IJCDS), Scopus.
- ❖ ICETCI 2023- Mahindra University, Hyderabad

Membership of Professional Institutions:

- ❖ FSASS- Scholars Academy and Scientific Society

Speaker Presentations:

- ❖ G20 Global Tech Summit 2023- Feb 16-17, 2023, Visakhapatnam, Andhra Pradesh, India and presented poster on “Sustainable Green Energy Optimization for Edge Cloud Computing with Renewable Energy Resources”.
- ❖ **Sustainable Green Energy Optimization for Edge Computing with Renewable Energy Resource-** 8th Global Entrepreneurship & Business Management Summit, March 27-28, 2023 Amsterdam, Netherlands (Virtual Mode).

Awards (International/National):

1. Bharath Education Excellence Awards 2022
2. National Educational Excellence Awards 2022
3. Gurukul Awards for Best Researcher 2022
4. Bharat Samman Nidhi Puraskar 2024
5. International EARG Awards 2024/ 2025
6. Bharath Education Excellence Awards (Yuva Acharya Awards) 2024
7. AMP Awards for Educational Excellence 2024
8. Teacher Excellence Awards 2024 (By Fourth Screen Education)
9. Global Innovative Leader 2025 (NextGen University International, USA)
10. Honorary Doctorate in Artificial Intelligence from Graham International University, USA on May 25th 2025
11. India Book of Records for Writing 33 Books in the Field of Science and Technology
12. Excellence in Research Contribution Awards by CSC India on National Teachers' Day 2025
13. Swamy Vivekananda Awards- 2026 by The Indian Forum for Social Leaders and Archivers

Weblinks:

Personal Website	:	https://www.xresearchandinnovationlab.com/
Google Scholar	:	https://scholar.google.co.in/citations?user=DGHVEg4AAAAJ&hl=en
ResearchGate	:	https://www.researchgate.net/profile/Soumya-Jena-2
UNDIO	:	https://aim.unido.org/participants/3237098
BRICS	:	https://bcic-brics.org/participations/657938