

Curriculum Vitae

Name: Dr. Banana Omkar Lakshmi Jagan
Address: Karlam Village, Metapalli Post, Cheepurupalli Mandal,
Vizianagaram District, Andhra Pradesh-535125
Email id: omkarjagan@yahoo.com
Mobile No: 9705554134



Objective:

To pursue a bright career at an organization where my hard work and commitment will allow me to completely explore myself and achieve my potential, I am willing to work as a significant person involved in a challenging and creative environment.

Education Qualification:

<u>Degree</u>	<u>Specialization</u>	<u>Year</u>	<u>University/Board</u>
Ph.D.	Statistical Signal & Image Processing	2023	Koneru Lakshmaiah Education Foundation (Deemed to be University), A.P
M. Tech.	Power Systems	2016	Koneru Lakshmaiah Education Foundation (Deemed to be University), A.P
B.Tech.	Electrical and Electronics Engineering	2014	Sri Sivani College of Engineering, JNTU Kakinada, A.P
Intermediate	M.P.C	2008	Board of Intermediate A.P
X th		2006	Council for the Indian School Examinations Delhi

Work Experience:

1. From May 29, 2024, I am working as an **Associate Professor** in department of computer Science Engineering, Vignan's Institute of Information Technology (A), Duvvada, Visakhapatnam, Andhra Pradesh, India.
2. From December 28, 2022 to May 22, 2024, I am working as an **Assistant Professor** in department of Artificial intelligence and Machine Learning, Department of computer Science Engineering, School of Engineering, Malla Reddy University, Hyderabad, Telangana District, India.
3. From July 17, 2022 to December 27, 2022, I am working as a **Research Associate (RA)** in the NSTL-DRDO project under department of Electronics and Communication Engineering at the Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh, India. Title of the project **Performance Evaluation of all TMA Algorithms for Bot & Calculation of MLA & SOA for Identified Zigging targets.**

4. From July 9, 2021 to January 8, 2022, I worked as a **Senior Research Fellow** (SRF) in the NRB-DRDO project under department of Electronics and Communication Engineering at the Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh, India. Title of the project **State of Art Submarine Target Motion Analysis.**
5. From 09th July 2019 to 08th July 2021, I worked as a **Junior Research Fellow** (JRF) in the NRB-DRDO project under department of Electronics and Communication Engineering at Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh, India. Title of the project **State of Art Submarine Target Motion Analysis.**
6. From July 12th 2016 to July 11th 2018, I worked as a **Junior Research Fellow** (JRF) in the NRB-DRDO project under department of Electronics and Communication Engineering at Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh, India. Title of the project **Advance Submarine Target Motion Analysis.**

Experience Summary:

Research: 5 Year 06 months
 Teaching: 2 Years

Subject Teaching:

1. Deep Learning
2. Machine Learning
3. Linux Programming
4. Internet of Things
5. Deep Learning Laboratory
6. Meta-Heuristic Optimization Techniques
7. Application Development Projects in the area of Deep Learning and Machine Learning

Extra Certifications:

1. Recently attended NPTEL examination in the area of Introduction to Internet of Things conducted by IIT Kharagpur and qualified the NPTEL examination (**Certificate also issued**).
2. Recently attended NPTEL examination in the area of Deep Learning conducted by IIT Ropar and qualified the NPTEL examination (**Certificate also issued**).

Research Summary:

Area of Research : Statistical Signal Processing, Signal & Image Processing
 Software can handle : MATLAB, PYTHON
 Research Papers Published : **32**
 Patents : **02**
 Copyrights : **01**
 Book Published : **02**

Editorial Board/Reviewer : 13
Edited Book editor : 01

Certificate of Appreciation / Recognition for Reviewing the Papers:

1. MDPI Journals, **Processes** & **Journal of Marine Science and Engineering** awarded as Reviewer Recognition in the year 2023 & 2024
2. IEEE Journal, **IEEE Journal of Biomedical and Health Informatics** awarded as a Reviewer Recognition in the year 2023
3. Springer Journal, **Wireless Personal Communications** awarded as a Reviewer Recognition in the year 2023
4. MDPI Journal, **Journal of Marine Science and Engineering** awarded as a Reviewer Recognition in the year 2023
5. Elsevier's Journal, **Biomedical Signal Processing and Control** awarded a Certificate of Reviewer Recognition in the year 2023
6. Recognition and Appreciation of your contribution as Reviewer for the **2nd International Conference on Optoelectronic Information and Computer Engineering**, June 10 - 12, 2023, Hangzhou, China.
7. Elsevier's Journal, **Acta Astronautica** awarded a Certificate of Reviewer Recognition in the year 2023
8. Taylor and Francis Journal, **Imaging Science Journal** awarded a Certificate of Reviewer Recognition in the year 2022
9. Elsevier's Journal, **Defence Technology** awarded a Certificate of Reviewer Recognition in the year 2022
10. DRDO Journal, **Defense Science Journal** will awarded a Certificate of Reviewer Recognition in the year 2021.
11. Elsevier's Journal, **Journal of the Franklin Institute** awarded a Certificate of Reviewer Recognition in the year 2020
12. Elsevier's Journal, **ISA Transaction** awarded a Certificate of Reviewer Recognition in the year 2018
13. Elsevier's Journal, **Pattern Recognition Letters** awarded a Certificate of Reviewer Recognition in the year 2017

H -Index from databases:

S.No	Name of the Data base	H-Index/RG Score	Citations
1.	SCOPUS	6	197
2.	Research Gate Score	8/162.4	220
3.	Web of Science	5	56
4.	Google Scholars	h-index 8/i10 index- 7	250

Data Base IDs with Links

S.No	Data Base	Link
1.	O.R.C.I.D	https://orcid.org/0000-0002-0059-4553
2.	SCOPUS	https://www.scopus.com/authid/detail.uri?authorId=571648901
3.	WoS ID	https://www.webofscience.com/wos/author/record/C-1524-2017
4.	VIDWAN	https://vidwan.inflibnet.ac.in/profile/223477

Data Base IDs:

Name	Data Base Id	Data Base Type	Branch	Country of Professional Body	Professional Body Scope
O.R.C.I.D	M-0000-0002-0059-4553	Life Time	Australia	Australia	International
Researches ID	C-1524-2017	Life Time	Newzealand	Newzealand	International
SCOPUS	571648901	Life Time	Netherlands	Netherlands	International
VIDWAN	223477	Life Time	India	MHRD	National

Professional Body International:

Name	Membership Id	Membership Type	Branch	Country of Professional Body	Professional Body Scope
IEEE	95126921	Member	Hyderabad	R10 -Asia and Pacific	International
I.A.E.N.G	M185403	Life Time	Hong Kong	Hong Kong	International
O.S.I	LM-565	Life Time	Chennai	India	National
I.S.R.D	SR4150900472	Senior Member	Chennai	India	National

Patents Published:

- Title:** IOT based physical rehabilitation system for smart walker **Application No TEMP/E-1/6767/2023-CHE Inventors:** Dr. Gunasekaran Thangavel, Dr. Pinagadi Venkateswara Rao, Mr. B. Uma Mahesh Babu, Dr. B. Omkar Lakshmi Jagan, Dr. K. Vadivelan, Mr. R. Vadivel, Mr. Prashanth, Dr. Deepak Sharma, Dr. V. Kannan, Mr. J Logeshwaran. **Date of Filing:** 29/01/2023, **Authority:** India. **(Utility Patent, Published)**
- Title:** Machine learning approach based Monitoring insect pests in plants using camera equipped device **Application No TEMP/E-1/7489/2023-D Inventors:** Piyush Raja, Dr. Pinagadi Venkateswara Rao, B. Omkar Lakshmi Jagan, Mrs. G. Sirisha, Mr. P. Varun, Dr. Kalaivani S, Mr. Ebin Antony, Mr. Jacob Antony, Mr. Thoram Saran Kumar, I Rama Satya

- Nageswara Rao, Dr. V. Kannan, Mr. J Logeshwaran. **Date of Filing:** 01/02/2023, **Authority:** India. **(Utility Patent, Published)**
3. **Title:** Smart shoe **Application No 6300158 Inventors:** Achanta Sampath Dakshina Murthy, Dr. Mamidipaka Hema, Dr. Sudhakar Jyothula, Banana Omkar Lakshmi Jagan. **Date of Filing:** 28/07/2023, **Authority:** India. **(UK Design Patent, Granted)**
 4. **Title:** A System and Method of Estimating Target Vehicle's Range, Course and Speed Using Doppler Frequency and Bearing Measurements. Application No **201911054471 A Inventors:** Koteswara Rao, **B. Omkar Lakshmi Jagan**, M. Kavitha Lakshmi, Kausar Jahan **Date of Filing:** 29/12/2020, **Authority:** India. **(Utility Patent, Published)**
 5. **Title:** Target Tracking Using Bearings-Only Measurements Application No **202011057464 Inventors:** S. Koteswara Rao, **B. Omkar Lakshmi Jagan**, M. Kavitha Lakshmi, Kausar Jahan. **Date of Filing:** 29/12/2020, **Authority:** India. **(Utility Patent, Published)**
 6. **Title:** Solar Powered Public Lighting Fixture with Hidden Camera Application No **364183-001 Inventors:** **B. Omkar Lakshmi Jagan**, A. Sampath Dakshina Murthy, Dr. Suman Maloji, Dr. M. Murali. **Date of Filing:** 13/05/2022, **Authority:** India. **(Design Patent, Granted)**

Copyrights Published:

1. **Title:** Dynamic Resource Allocation System For Cloud Computing Environments **Application No 1212840 Inventors:** Dr. A. Sampath Dakshina Murthy, Dr. P. Santosh, Dr. B. Omkar Lakshmi Jagan, Mrs.Kadali Lakshmi. **Date of Filing:** 03/05/2024, **Authority:** Canada. **(Copyright, Granted)**

Book Published:

1. Title: **Gait Recognition in the Modern Era- Innovative Application in Gait Recognition in Health Care and Rehabilitation.** ISBN: **978-620-6-15149-4.** Publisher: **LAP LAMBERT Academic Publishing**, London. Authors: **Sampath Dakshina Murthy, M.Hema, B. Omkar Lakshmi Jagan**

Edited Book Details as Editor:

1. Title: Call for Chapters: Signal and Image Processing Techniques for Defense, Security, and Healthcare, Publisher: **IGI Global.** Editors: **Dr. B. Omkar Lakshmi Jagan, Dr. Amrit Mukherjee, Dr. Thayyaba Khatoon Mohammed, Dr. VSK Reddy.**

Link: <https://www.igi-global.com/publish/call-for-papers/call-details/7178>

Technical Projects:

Education	Projects
Ph.D.	Underwater Passive Target Tracking Using Bearing and Frequency Measurements
M.Tech.	Unscented Kalman Filter with Application to Bearings-only Passive Target Tracking

B.Tech.	Implementation of Seven-Level Inverter using Sinusoidal Pulse-Width Modulation Technique
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Details of Paper Publications:

SCI International Journal Paper Publications:

1. Madhavi, B., Mahanty, M., Lin, CC. **B. Omkar Lakshmi Jagan** et al, "SwinConvNeXt: a fused deep learning architecture for Real-time garbage image classification", Sci Rep Vol. 15, pp. 7995, 2025. **(SCOPUS/ESCI/SCIE)**
2. Uwigize Patrick, S. Koteswara Rao, **B. Omkar Lakshmi Jagan**, M. Kavitha Lakshmi, Thayyaba Khatoon Mohammed, "[Unscented Kalman Filters Integrated with Deep Learning Approaches for Active Sonar Based 2D Underwater Target Tracking](#)", Defence Science Journal, Vol.74, No. 5, pp. 690- 700, 2024. **(SCOPUS/ESCI/SCIE)**
3. Uwigize Patrick, S. Koteswara Rao, **B. Omkar Lakshmi Jagan**, M. Kavitha Lakshmi, Thayyaba Khatoon Mohammed, "[Radar-Based Target Tracking Using Deep Learning Approaches with Unscented Kalman Filter](#)", Applied Sciences, 14(18), 8332, 2024. **(SCOPUS/ESCI/SCIE)**
4. Venkata Anuhya Ardeti, Venkata Ratnam Kolluru, Sidheswar Routray, **B. Omkar Lakshmi Jagan**, Ata Kishore Kumar, Ramachandran R., Md. Amzad Hossain, Ahmed Nabih Zaki Rashed, "[Development of Real Time ECG Monitoring and Unsupervised Learning Classification Framework for Cardiovascular Diagnosis](#)", Biomedical Signal Processing and Control, Volume 88, Part A, February 2024, 105553. **(SCOPUS/ESCI/SCIE)**
5. Jagan, B.O.L., Rao, S.K. (2022) "[Evaluation of DB-IEKF Algorithm Using Optimization Methods for Underwater Passive Target Tracking](#)". Mobile Netw Appl (2022). <https://doi.org/10.1007/s11036-021-01862-x> **(SCOPUS/ESCI/SCIE)**
6. Koteswara Rao, S., Kavitha Lakshmi, M., Jahan, K., Naga Divya, G. and **B. Omkar Lakshmi Jagan**, "[Acceptance Criteria of Bearings-only Passive Target Tracking Solution](#)", *IETE Journal of Research*, pp.1-12, 2021. **(SCOPUS/ESCI/SCIE)**
7. Omkar Lakshmi Jagan, B. and Koteswara Rao, S., "[Underwater surveillance in non- Gaussian noisy environment](#)", Measurement and Control, Vol. 53(1-2), pp. 250-261, 2020. **(SCOPUS/ESCI/SCIE)**

ESCI International Journal Paper Publications

8. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, "[Measure of nonlinearity for underwater target tracking using hull-mounted sensor](#)", International Journal of Intelligent Computing and Cybernetics, Vol. ahead-of-print No. ahead-of-print. DOI: <https://doi.org/10.1108/IJICC-08-2021-0167>. **(SCOPUS/ESCI)**
9. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, Kausar Jahan, "[Unscented Particle Filter Approach for Underwater Target Tracking](#)", International Journal of e- Collaboration (IJeC), 17(4), pp. 29-40, 2021. **(SCOPUS/ESCI)**
10. B., O.L.J., S., K.R. and M., K.L. (2022), "[Underwater target tracking in three- dimensional environment using intelligent sensor technique](#)", International Journal of Pervasive Computing and Communications, Vol. ahead-of-print No. ahead-of- print. <https://doi.org/10.1108/IJPCC-07->

[2021-0154](#) (SCOPUS/ESCI).

SCOPUS International Journal Paper Publications:

11. Sk. Hasanae Ahammad, **B. Omkar Lakshmi Jagan**, "Comparative Study For Performance Efficiency of Conventional Optical Transmitter with Spatial Optical Transmitter Through CWDM Fiber System", Journal of Optical Communications. (SCOPUS/EI)
12. A. Sampath Dakshina Murthy, **B. Omkar Lakshmi Jagan**, K. Raghava Rao, P. Satyanarayana Murty, "[A virtual reality research of Gait analysis in the medicine fields](#)", AIP Conference Proceedings, Vol. **2426**, pp. 020040, 2022. (SCOPUS/CCI)
13. S. Koteswara Rao, **B. Omkar Lakshmi Jagan**, "Passive Target Tracking in Underwater Environment using Bearing and Frequency Measurements", OCEANS 2022- Chennai, IEEE, Chennai, India. DOI: [10.1109/OCEANSChennai45887.2022.9775362](#) (SCOPUS/CCI)
14. P. Satyanarayana Murty, A. Sampath Dakshina Murthy, B. Omkar Lakshmi Jagan, "[COVID-19 \(SARS-COV2\) visual digital data fusion using hybrid technique](#)", AIP Conference Proceedings, Vol. **2408**, pp. 030006, 2021. (SCOPUS/CCI)
15. Mohammad, M.N., Kumari, C.U., Murthy, A.S.D., **B. Omkar Lakshmi Jagan** and Saikumar, K., "[Implementation of online and offline product selection system using FCNN deep learning: Product analysis](#)", Materials Today: Proceedings, Vol. **45**, pp. 2171-2178, 2021. (SCOPUS/CCI)
16. Murali, M., Rao, T.A., Kumar, P.S., Rachappa, C. and **B. Omkar Lakshmi Jagan**, "[Robust electric vehicle design using IANFIS controlling technology](#)", Materials Today: Proceedings, Vol. **45**, pp. 1487-1493, 2021. (SCOPUS/CCI)
17. Murthy, A.S.D., Karthikeyan, T., **B. Omkar Lakshmi Jagan** and Kumari, C.U., "[Novel deep neural network for individual re recognizing physically disabled individuals](#)", Materials Today: Proceedings, Vol. **33**, pp. 4323-4328, 2020. (SCOPUS/CCI)
18. Mohan Awasthy, R P Patel, Kamal Mehta, D S Raghuwanshi, **B. Omkar Lakshmi Jagan**, "[Issues and Challenges of Microwave Power Transmission Suitable For Solar Power Satellites](#)", Journal of Green Engineering, Vol. **10**(9), pp. 5283-5296, 2020. (SCOPUS)
19. A. Sampath Dakshina Murthy, T. Karthikeyan, **B. Omkar Lakshmi Jagan**, "[Clinical Model Machine Learning for Gait Observation Cardiovascular Disease Diagnosis](#)", International Journal of Pharmaceutical Research, Vol. **12**(4), pp. 1176-1190, 2020. (SCOPUS)
20. M. Murali, P. Sharath Kumar, Ch. Rachappa, **B. Omkar Lakshmi Jagan**, "[Performance Analysis of Reactive Power Mitigation using Fuzzy Controller for Buck-Type Dynamic Capacitor](#)", International Journal of Science and Technology, Vol. **29** (7), pp. 766-780, 2020. (SCOPUS)
21. Tulasichandra Sekhar Gorripotu, Krishna Mohan Tatikonda, **B. Omkar Lakshmi Jagan**, "[Performance Analysis of Grid Synchronization Method for Three-Phase Three- Wire Networks under Grid Fault Conditions](#)", International Journal of Science and Technology, Vol. **29** (6), pp. 3451-3458, 2020. (SCOPUS)
22. Aamani, R., Vannala, A., Murthy, A.S.D., Saikumar, K. and **B. Omkar Lakshmi Jagan**, "[Heart disease diagnosis process using Mri](#)"

- [segmentation and lasso net classification ML](#)", Journal of Critical Reviews, Vol. 7(6), pp. 2020, 2019. **(SCOPUS)**
23. Raju, K., S. K. Pilli, G. S. S. Kumar, K. Saikumar, and **B. Omkar Lakshmi Jagan**, "[Implementation of natural random forest machine learning methods on multi spectral image compression](#)", J Crit Rev, Vol. 6(5), pp. 265-273, 2019. **(SCOPUS)**
24. A. Dakshina, P. Satyanarayana Murthy, V. Rajesh, Sk. Hasane Ahammad, **B. Omkar Lakshmi Jagan**, "[Execution of Natural Random Forest Machine Learning Techniques on Multi Spectral Image Compression](#)", International Journal of Pharmaceutical Research, Vol. 11(1), pp. 1176-1190, 2019. **(SCOPUS)**
25. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao and M. Kavitha Lakshmi, "[Concert Assessment of Unscented and Cubature Kalman Filters for Target Tracking](#)", Journal of Advanced Research in Dynamical and Control Systems, Vol. 10, Issue 4, pp.48-56, May 2017. **(SCOPUS)**
26. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao and M. Kavitha Lakshmi, "[Passive Target Tracking Using ESM Measurements in EW Environment](#)", Journal of Advanced Research in Dynamical and Control Systems, Vol. 10, Issue 3, pp.37-43, May 2017. **(SCOPUS)**
27. K. Lakshmi Prasanna, S. Koteswara Rao, **B. Omkar Lakshmi Jagan**, A. Jawahar and SK. B. Karishma, "[Data Fusion in Underwater Environment](#)", International Journal of Engineering and Technology, Vol.8, No.1, pp.225-234, March 2016. **(SCOPUS)**
28. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, A. Jawahar and SK. B. Karishma, "[Application of Particle Filter using TA Bearing Measurements](#)", Indian Journal of Science and Technology, Vol.9, No.7, pp.1-4, February 2016. **(SCOPUS)**
29. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, A. Jawahar and SK. B. Karishma, "[Application of Bar-Shalom and Fortmann's Input Estimation For Underwater Target tracking](#)", Indian Journal of Science and Technology, Vol.9, No.21, pp.1-5, June 2016. **(SCOPUS)**
30. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, K. Lakshmi Prasanna, A. Jawahar and SK. B. Karishma, "[Novel Estimation Algorithm For Bearings-Only Target Tracking](#)", International Journal of Engineering and Technology, Vol.8, No.1, pp.238-246, March 2016. **(SCOPUS)**
31. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, A. Jawahar and SK. B. Karishma, "[Unscented Kalman Filter with Application to Bearings-only Passive Target Tracking](#)", Indian Journal of Science and Technology, Vol 9(19), pp.1-10, May 2016. **(SCOPUS)**
32. **B. Omkar Lakshmi Jagan**, S. Koteswara Rao, A. Jawahar and SK. B. Karishma, "[Passive Target Tracking using Intercept Sonar Measurements](#)", Indian Journal of Science and Technology, Vol 9(12), 85554, March 2016. **(SCOPUS)**

Participated in International/ National Conferences:

1. Participated in International conference on Allied Electrical & Communication Systems (ICA ECS 2016) on 8th, 9th and 10th January 2015, at Vignan's University, Guntur, Andhra Pradesh.
2. National Symposium on Intellectual Property Rights (IPRs) on 25-26 October

- 2017.
3. Participated in Workshop on “Smart & Green Technologies for Sustainable Energy (NWSGTSE-2k17)” on 19th and 20th December,2017
 4. I association with DST-SERB, Govt. of India, at Koneru Lakshmaiah Education Foundation, Vaddeswaram, Guntur.

Personal Profile:

Name : Banana Omkar Lakshmi Jagan
Father's Name : B. Bhaskara Rao
Date of Birth : 08-10-1990.
Permanent Address: Karlam Village, Metapalli Post, Cheepurupalli,
Vzianagaram, Andhra Pradesh-535125.
Hobbies : Reading books
Languages known : English, Telugu, Hindi

Declaration:

I hereby declare that the above particulars are true to the best of my knowledge.



(B.Omkar Lakshmi Jagan)