

Dr. Puranam Revanth Kumar

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📄 <https://www.webofscience.com/wos/author/record/AAT-2499-2021>

📄 <https://www.scopus.com/authid/detail.uri?authorId=57215743776>



Career Objective

Seeking a challenging career with a progressive, result oriented organization which offer ample opportunity to prove, improve and grow in career and professional advancement.


Education


- 2024 – 2025 📖 **Post Doctoral Research Fellow**, Centre for Medical Image Analysis, Symbiosis International University, Pune, India.
- 2019 – 2024 📖 **Ph.D.**, Computer Science and Engineering, ICFAI University, Hyderabad, India.
Thesis Title: Brain Tissue Segmentation and Analysis of Structural Connectivity using Deep Learning Techniques
- 2017 – 2019 📖 **M.Tech**, Control and Instrumentation, AMRITA University, Coimbatore, India.
Thesis Title: Machine Vision using LabVIEW for Label Inspection.
CGPA: 6.65
- 2012 – 2016 📖 **B.Tech**, Electronics and Instrumentation, GITAM University, Hyderabad, India.
Thesis Title: Wireless Mobile Charger using Inductive Coupling.
CGPA: 6.99

Experience

- July 2025 – Till Date 📖 Working as an Assistant Professor in the Department of Artificial Intelligence and Machine Learning, at Malla Reddy University, Hyderabad, India.
- Jan 2024 – Aug 2024 📖 Worked as an Assistant Professor in the Department of Artificial Intelligence and Machine Learning, at Malla Reddy University, Hyderabad, India.
- Nov 2018 – May 2019 📖 Worked as a LabVIEW Software Trainee in the Department of Vision, Optomech Engineers Pvt. Ltd., Hyderabad, India.

Technical Skills

Research area of Interest  Image Processing, Deep Learning, Machine Learning, Neuroimaging, Biomedical Imaging, AI.

Programming Languages  MATLAB, Python, LabVIEW, C Language.

Research Publications

Journal Articles

1. **Puranam Revanth Kumar**, B Shilpa, Rajesh Kumar Jha “BrainTract: segmentation of white matter fiber tractography and analysis of structural connectivity using hybrid convolutional neural network”, Neuroscience, Vol. 580, pp. 218-230, 2025. **IF = 2.9 (SCIE Q1)**  <https://doi.org/10.1016/j.neuroscience.2025.06.043>
2. Thayyaba Khatoon Mohammed, D N Vasundhara, Syeda Husna Mehanoor, E. Sreedevi, **Puranam Revanth Kumar**, CH Manihass, Shaik Fareed Baba “A Novel Fusion Approach for Advancement in Crime Prediction and Forecasting using Hybridization of ARIMA and Recurrent Neural Networks”, Journal of Information Systems Engineering and Management, Vol. 10, Issue 38, pp. 404-420, 2025. **(Scopus Q3)** <https://doi.org/10.52783/jisem.v10i38s.6863> 
3. **Puranam Revanth Kumar**, B Shilpa, Rajesh Kumar Jha, and Veni Sree Chellibouina “Spatial Attention U-Net Model with Harris Hawks Optimization for Retinal Blood Vessel and Optic Disc Segmentation in Fundus Images”, International Ophthalmology, Vol. 44, Article 359, pp. 1-13, 2024. **IF = 1.4 (SCIE Q2)**. <https://doi.org/10.1007/s10792-024-03279-3> 
4. **Puranam Revanth Kumar**, Rajesh Kumar Jha, P Akhendra Kumar, and B Deevena Raju “Improved neurological diagnoses and treatment strategies via automated human brain tissue segmentation from clinical magnetic resonance imaging”, Intelligent Medicine, Vol. 4 (3), Pp. 161-169, 2024. **IF = 4.4, (SCIE Q1)**. <https://doi.org/10.1016/j.imed.2023.10.001> 
5. **Puranam Revanth Kumar**, Rajesh Kumar Jha, and P Akhendra Kumar “BrainHyperintensities: Automatic Segmentation of White Matter Hyperintensities in Clinical Brain MRI Images using Improved Deep Neural Network”, The Journal of Supercomputing, vol. 80, pp. 15545–15581, 2024. **IF = 2.5 (SCIE Q2)**. <https://doi.org/10.1007/s11227-024-06080-2> 
6. **Puranam Revanth Kumar**, B Shilpa, Rajesh Kumar Jha, B Deevena Raju, and Thayyaba Khatoon Mohammed, “Inpainting Non-Anatomical Objects in Brain Imaging using Enhanced Deep Convolutional Autoencoder Network”, Sadhana, vol. 49, article number 181, pp. 1-13, 2024. **IF = 1.4 (SCIE Q2)**. <https://doi.org/10.1007/s12046-024-02536-6> 
7. **Puranam Revanth Kumar**, B Shilpa, and Rajesh Kumar Jha “Brain disorders: Impact of mild SARS-CoV-2 may shrink several parts of the brain”, Neuroscience & Biobehavioral Reviews, vol. 149, p.105150, 2023. **IF = 7.5 (SCI Q1)**.  <https://doi.org/10.1016/j.neubiorev.2023.105150>

8. **Puranam Revanth Kumar**, Rajesh Kumar Jha, and Amogh Katti “Brain Tissues Segmentation in Neurosurgery: A Systematic Analysis for Quantitative Tractography Approaches” *Acta Neurologica Belgica*, vol. 124, pp. 1-15, 2023. **IF = 2.5, (SCIE Q2)**. <https://doi.org/10.1007/s13760-023-02170-9>
9. B Shilpa, **Puranam Revanth Kumar**, and Rajesh Kumar Jha, “LoRa DL: a deep learning model for enhancing the data transmission over LoRa using autoencoder”, *The Journal of Supercomputing*, vol. 79, pp. 17079 – 17097, 2023. **IF = 2.5 (SCI Q2)**. <https://doi.org/10.1007/s11227-023-05355-4>
10. **Puranam Revanth Kumar**, B Shilpa, Rajesh Kumar Jha, and Sachi Nandan Mohanty, “A novel end-to-end approach for epileptic seizure classification from scalp EEG data using deep learning technique”, *International Journal of Information Technology*, vol. 15, pp. 4223–4231, 2023. <https://doi.org/10.1007/s41870-023-01428-y>. **(ESCI Q2)**
11. Roop Ranjan, Dilkeshwar Pandey, Ashok Kumar Rai, Deepak Gupta, Pawan Singh, **Puranam Revanth Kumar**, and Sachi Nandan Mohanty, “A Manifold-Level Hybrid Deep Learning Approach for Sentiment Classification Using an Autoregressive Model”, *Applied Sciences*, vol. 13, no. 5, p.3091, 2023. **IF = 2.83 (SCIE Q2)**. <https://doi.org/10.3390/app13053091>
12. N. Arivazhagan, K. Somasundaram, Gouse Baig Mohammad, **Puranam Revanth Kumar** et al., “Cloud-Internet of Health Things (IOHT) Task Scheduling Using Hybrid Moth Flame Optimization with Deep Neural Network Algorithm for E Healthcare Systems”, *Scientific Programming*, Volume 2022, Article ID 4100352, pp. 1-12, 2022. **IF = 1.67 (SCIE Q3)**. <https://doi.org/10.1155/2022/4100352>
13. **Puranam Revanth Kumar**, Gouse Baig Mohammad, and P Dileep, “Real-Time Heart Rate Monitoring System using Least Square Method”, *Annals of the Romanian Society for Cell Biology*, vol. 25, Issue. 6, pp. 16302 – 16308, May 2021. <https://www.annalsofrscb.ro/index.php/journal/article/view/8878>
14. Gouse Baig Mohammad, Shitharth, and **Puranam Revanth Kumar**, “Integrated Machine Learning Model for an URL Phishing Detection”, *International Journal of Grid and Distributed Computing*, vol. 14, Issue 1, pp: 513-529, 2021. **(ESCI)**. <http://sersc.org/journals/index.php/IJGDC/article/view/35886>
15. **Puranam Revanth Kumar**, and T Ananthan “Machine Vision using LabVIEW for Label Inspection”, *Journal of Innovation in Computer Science and Engineering (JICSE)*, Vol.9, Issue 1, pp: 58 - 62, 2019. <https://www.indianjournals.com/ijor.aspx?target=ijor:jicse&volume=9&issue=1&article=010>
16. **Puranam Revanth Kumar** “Wireless Mobile Charger using Inductive coupling”, *Journal of Emerging Technologies and Innovative Research (JETIR)*, Vol.5, Issue 10, pp: 40-44, 2018. **(UGC)**. <https://www.jetir.org/view?paper=JETIRJ006007>

Conference Proceedings

1. Thayyaba Khatoon Mohammad, **Puranam Revanth Kumar**, Gifta Jerith, and E. Krishnaveni Reddy, “Multimodal Language Models for End-to-End Automated Speech Recognition Using Bidirectional Recurrent Neural Network”, 14th International Advanced Computing Conference, pp. 33 – 47, 2025. https://doi.org/10.1007/978-3-031-84602-1_3
2. **Puranam Revanth Kumar**, Thayyaba Khatoon Mohammad, Aylapogu Pramod Kumar, Ruslan Kassym, Tolegenova A. S, and Tlenshieva Akmaral, “Synthesizing Multi-Modal Imaging for Enhanced Brain Mapping in

- Neurology: A State-of-the-art Review”, 5th International Conference on Communications, Information, Electronic and Energy Systems (CIEES), pp. 1-6, 2025. [10.1109/CIEES62939.2024.10811448](https://doi.org/10.1109/CIEES62939.2024.10811448).
3. A. Pramod Kumar, D. M. Sudan, P. V. Sai Charisma, N. Agarwal and **Puranam Revanth Kumar**, "A Novel Antenna Design and Analysis for 5G mm Wave Broadband Systems," 21st India Council International Conference (INDICON), Kharagpur, India, 2025, pp. 1-4. [10.1109/INDICON63790.2024.10958533](https://doi.org/10.1109/INDICON63790.2024.10958533)
 4. A. Pramod Kumar, **Puranam Revanth Kumar** and N. Agarwal, “Design and Implementation of Partially Static High Frequency DFF for Low Power Applications”, 3rd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), pp. 1-4, 2024. [10.1109/AESPC59761.2023.10390340](https://doi.org/10.1109/AESPC59761.2023.10390340)
 5. **Puranam Revanth Kumar**, Rajesh Kumar Jha, and P Akhendra Kumar, “Segmentation of White Matter Lesions in MRI Images Using Optimization-based Deep Neural Network”, 4th International Conference on Image Processing and Capsule Networks, pp. 253-267, 2023. https://doi.org/10.1007/978-981-99-7093-3_17
 6. B Shilpa, **Puranam Revanth Kumar**, Rajesh Kumar Jha, “Spreading Factor Optimization for Interference Mitigation in Dense Indoor LoRa Networks”, IEEE IAS Global Conference on Emerging Technologies (GlobConET), pp. 1-5, 2023. [10.1109/GlobConET56651.2023.10149925](https://doi.org/10.1109/GlobConET56651.2023.10149925)
 7. H. Siriwardana, Kamakhya Narain Singh, **Puranam Revanth Kumar**, Chinmay Misra, “Automated Road Crossing System Using Real-Time Object Tracking”, 10th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO), pp. 1-5, 2022. [10.1109/ICRITO56286.2022.9964963](https://doi.org/10.1109/ICRITO56286.2022.9964963)
 8. **Puranam Revanth Kumar**, Sangeetha K, Rabi Narayan Satpathy, and S N Mohanty “A Comprehensive analysis on EEG Signal Classification on Human Brain”, 9th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO), pp. 1-6, 2021. [10.1109/ICRITO51393.2021.9596296](https://doi.org/10.1109/ICRITO51393.2021.9596296)
 9. **Puranam Revanth Kumar**, Sachi Nandan Mohanty, Achyuth Sarkar, and P Pavan Kumar “Segmentation of White Blood Cells using Image Segmentation Algorithms”, 5th International Conference on Computing, Communication and Security (ICCCS), pp. 1-4, October 2020. [10.1109/ICCCS49678.2020.9277312](https://doi.org/10.1109/ICCCS49678.2020.9277312)
 10. **Puranam Revanth Kumar** “Position Control of a Stepper Motor using LabVIEW” 3rd International Conference on Recent Trends in Electronics, Information Communication Technology (RTEICT), pp. 1551 - 1554, 2018. [10.1109/RTEICT42901.2018.9012597](https://doi.org/10.1109/RTEICT42901.2018.9012597)

Book Chapters

1. **Puranam Revanth Kumar**, Amogh Katti, Sachi Nandan Mohanty, and Surender Nath Senapati, “A Deep Learning-based approach for an Automated Brain Tumor Segmentation in MR images”, Pattern Recognition and Data Analysis with Applications, vol 888, pp. 87-97, 2022. https://doi.org/10.1007/978-981-19-1520-8_7
2. **Puranam Revanth Kumar** and B. Shilpa, “An IoT-Based Smart Healthcare System with Edge Intelligence Computing”, Reconnoitering the Landscape of Edge Intelligence in Healthcare, CRC Press, pp. 31-46, 2024. <https://doi.org/10.1201/9781003401841>

Certification

Deep Learning  Awarded by NPTEL

Machine Learning  Awarded by Coursera

Reviewer

1. EAI ICISML 2022 – 1st EAI International Conference on Intelligent Systems and Machine Learning, Vardhaman College of Engineering, Hyderabad, India.
2. 4th International Conference on Machine Intelligence and Signal Processing (MISP-2022), National Institute of Technology (NIT), Raipur, India.
3. 9th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO'2021), Amity University, Noida, India.
4. 3rd International Conference on Machine Intelligence and Signal Processing (MISP-2021), NIT Arunachal Pradesh, India.

Technical Program Committee Member

1. 1st International Conference on Knowledge Engineering and Artificial Intelligence (ICKEAI-2024) at St.Peter's Engineering College, Hyderabad, from February 16th and 17th 2024, as Session Chair.
2. 3rd EAI International Conference on Intelligent Systems and Machine Learning (ICISML -2024) at G H Raison Institute of Engineering and Technology, Pune, from January 5th and 6th 2024, as Session Chair.
3. 2nd EAI International Conference on Intelligent Systems and Machine Learning (ICISML -2023) at Sri Sri University, Cuttack, Odisha from July 27th – 28th 2023, as Session Chair.
4. 1st EAI International Conference on Intelligent Systems and Machine Learning (ICISML -2022) at Vardhaman College of Engineering, Hyderabad from December 16th – 17th 2022, as Session Chair.
5. 4th International Conference on Machine Intelligence and Signal Processing (MISP 2022), at NIT Raipur from March 12th – 14th 2022, as Session Chair.

Membership in Professional Organizations

2021 – Present: Member IEEE, Member no – 96509147

FDP Attended

1. Participated in 5-Day Online FDP on “Statistics & Optimization Techniques Using Software Packages” from 25th to 29th October, at Aligarh Muslim University, New Delhi, October 2021.
2. Participated in 5-Day Online FDP on “Industrial Applications of Machine Learning and Artificial Intelligence” from 6th to 10th September, at Manipal University Jaipur, September 2021.
3. Participated in 12 – Days Online PDP on “Digital Tools for Writing, Authoring and reviewing manuscripts” from 12 to 23rd July 2021, at Atal Bihari Vajpayee Vishwavidyalaya Bilaspur, Chhattisgarh, India.

4. Participated in 5-Day Online FDP on “Blockchain Technology & Cryptocurrency” from 19th to 23rd April, Vardhaman College of Engineering, Hyderabad, April 2021.

Personal Data

Date of Birth: 19th August 1994

Nationality: Indian

Languages: Telugu, Hindi, English, Tamil

Gender: Male

Marital Status: Married.

Declaration

I hereby declare that the information furnished above is true to the best of my knowledge

Dr. Puranam Revanth Kumar