Personal Information

Name	**Dr. Aruna Rao S.L**
Years of Experience	Teaching: 19.6 years Research: 4 Industry:
Email Id	It.hod@bvrithyderabad.edu.in
Areas of Specialization	Computer Networks & Security

Educational Qualifications

Doctoral Degree	Ph.D	JNTUH, Hyderabad
PG Degree	M.Tech.(NIE)	VTU, Belgaum
UG Degree	B.Tech.(IT)	BU, Bangalore

Research Profile Links

Google Scholar	https://scholar.google.com/citations?user=ybItdeIA
Vidwan	https://bvrithyderabad.irins.org/profile/104414
Scopus	https://www.scopus.com/authid/detail.uri?authorId=57192372548
Web of Science	AAE-4128-2019
Orcid	https://orcid.org/0000-0001-6479-4442

SPONSORED R&D FUNDED PROJECTS / GRANTS

1. Received a grant of Rs. 65,34,000/- under WISE KIRAN Programme or Scheme : Consolidation of University Research for Innovation and Excellence (CURIE) in Women Institutions, on 08/02/2024, File No: DST/CURIE-PG/2024/7, Date: 01 November 2024

2. Received a grant of Rs.2,90,000/- under AICTE Training and Learning (ATAL) Academy Programmes for the Academic Year 2023-24 for the conduction of one week FDP on " Generative AI : Transforming Education and Research" from 08th Jan 2024 to 13th Jan 2024, File No: 1691558135/AICTE/ATAL/2023-24

3. Received a grant of Rs.4,00,000/- under the scheme Grant for Organizing Confernce (GoC) for conducting the International Conference on Big Data, Virtual Reality, Information & Communication Technologies on 22nd December 2023, 23rd December 2023, File No: 67-8/IDC/GOC/POLICY-5/2022-23

4. Received a grant of 10,000USD azure credits from AI for Earth – Microsoft in October 2021 Title:" Precision Agriculture" (File No: AI4E-2262-R5G9-21100412)

5. Received a research grant of 38.57 Lakhs from DST TIDE project in March 2013 for three years. Title:" Medicine Recognition System and Alerting Device for Geriatrics and Visually Challenged" (File No: SEED/TIDE/043/2013(G) dated 12/08/2015)

PATENTS GRANTED

1. A Portable Medicine Identification and Alerting System for Visually Challenged People and Geriatrics, Application No : 202141011491, Patent Filed on : 18/03/2021, Patent Published on: 26/03/2021, Patent Granted on 29/03/2024, Patent No: 531064

PATENTS FILED

1. SIGNSPEAK: Empowering Deaf Communication with Advanced Translation Technology, Application No: 202441039531, Published on:31/05/2024 (first Author)

2. System, Apparatus, and Method for Assessment of Suitability of Land for Horticultural Plants, Application No: 202341071569, Published on:19/10/2023 (third author)

3. Virtual Reality Head Mounted Display Device with Inbuilt Hand Tracking Technology, Application No: 202141011513, Published on:26/03/2021 (third author)

4. Smart Classroom Virtual Reality Head Mounted Display Device for Visual-Spatial Learners, Application no: 202041052429, Publication Date: 02/12/2020 (first author)

5. IAEC – System: Intelligent IoT System for Agriculture Environment Control, Application No.202041010147 A, Publication Date: 13/03/2020 (fourth author)

6. HPML – Control: High-Speed Train Speed Predictive Control Using Anfis Modelling and Machine Learning (fourth author)Papers Published

INTERNATIONAL JOURNAL PUBLICATIONS

2024

1. T. Subetha; Kayal Padmanandam; L. Lakshmi; S.L. Aruna Rao, published a paper titled "Applied-behavior analysis therapy for autism spectrum disorder students through virtual reality" in International Journal of Computational Vision and Robotics, (IJCVR), Vol. 14, No. 3, Published Online: May 1, 2024, pp 233-249, https://doi.org/10.1504/IJCVR.2024.138307 (SCOPUS /WOS)

2023

2. Aruna Rao S. L, Chatragadda Bharani, Jaina Sri Laxmi, Soppadandi Spoorthi, Kummari Tejaswini, published a paper titled "Handwritten Alphanumeric Character Recognition using Jetson Nano", at Journal of Advanced Research in Technology and Management Studies, http://www.jartms.org ISSN: 2582-3078 , BL Publications Volume: 05 Issue: 08, August 2023, DOI : 10.5072/FK26H4PV9J.2023.05.08.001

3. Aruna Rao S L, K. Sanjana Reddy, M. Deepthi Sharvani, R. Rajani, K.Aarthi published a paper titled "Gaming Application for Alzheimer Disease Detection " at Journal of Advanced Research in Technology and Management Studies, http://www.jartms.org ISSN: 2582-3078 , BL Publications Volume: 05 Issue: 08, August 2023, http://jartms.org/view_issue.php?title=GAMING-APPLICATION-FOR-ALZHEIMER-DISEASE-DETECTION, E-ISSN: 2582-3078 BL Publications Volume: 05 Issue: 08, August 2023, DOI : 10.5072/FK26H4PV9J.2023.05.08.002

2021

4. P S Latha Kalyampudi, Dr P Venka Krishna, Aruna Rao S. L., S Rama Devi, published a paper titled "Predictive Resource Demand Based Load Balancing Strategy for Fog Computing" Design Engineering, Pages: 7181-7191, Vol 2021: Issue 08 , ISSN: 0011-9342, http://www.thedesignengineering.com/index.php/DE/article/view/5727

5. Aruna Rao S.L.,M Shanmukhi published a paper titled "Exploring the Wireless Network Energy Conserving Mechanisms for Internet of Things" PENSEE Journal , Vol 51, Pages: 413-427 , May 2021, ISSN: 0031-4773

2020

6. Meenakshi Bhrugubanda, Aruna Rao S.L., M Shanmukhi, Annaluri Sreenivasa Rao, published a paper titled "Sustainable and Intelligent IoT Based Precision Agriculture – Smart Farming", International Journal of Solid State Technology, Volume:63, Issue 6, Pages:17824-17833, ISSN: 0038-111X http://solidstatetechnology.us/index.php/JSST/article/view/7839

7. Dr M Shanmukhi, Aruna Rao S.L., Ms Nazia Tabassum, Kuruva Harinath published a paper titled "NRPCAN : A Novel Routing Protocol for Cognitive Ad-Hoc Networks" , in Journal of Critical Reviews (JCR. 2020), Vol.7, Issue.15, Pages1589-1597, ISSN- 2394-5125 http://www.jcreview.com/index.php?iid=2020-7-15.000&&jid=197&lng=

2016

8. Aruna Rao S.L.,K.V.N. Sunitha published a paper titled "Trusted Secure Geographic Routing Protocol for Detecting Insider Attacks in MANET" in International Journal of Engineering Studies, ISSN 0975-6469 Volume 8, Number 2 (2016), pp. 187-197. https://www.ripublication.com/ijes16/ijesv8n2_07.pdf

2014

9. Aruna Rao S.L, K.V.N.Sunitha published a paper titled "Secure Geographical routing in MANET using the Adaptive Position Update" in International Journal of Advanced Computer Research Volume-4 Number-3 Issue-16 September-2014, Pages:785-794, (ISSN (print): 2249-7277 ISSN (online): 2277-7970) https://www.accentsjournals.org/PaperDirectory/Journal/IJACR/2014/9/6.pdf

INTERNATIONAL CONFERENCE PUBLICATIONS

2024

1. Bolukonda P., Kajuboju T., Sushma A., Chandra Shekar Rao V., Aruna Rao S.L., published a paper titled "Deep Learning Techniques to Recognize Two Wheeler Number Plate and Detect Helmet", in AIP Conference Proceedings, Vol. 2971, 020014, 5 June (2024) https://doi.org/10.1063/5.0195855, Research Article, June 05 2024, (SCOPUS)

2023

2. Aruna Rao, S.L., Jayashree S Patil, K V N Sunitha, published a paper titled "Detection of Malicious URLs", in AICTE Sponsored International Conference on Big Data, Virtual Reality, Information & Communication TecHnologies (BVRITHCON – 2023), 22nd & 23rd December 2023

3. Jayashree S Patil, Aruna Rao, S.L., K V N Sunitha, published a paper titled "Parkinson's Disease Diagnosis via Resnet50 Feature Extraction in a Deep Learning Framework", in AICTE Sponsored International Conference on Big Data, Virtual Reality, Information & Communication TecHnologies (BVRITHCON – 2023), 22nd & 23rd December 2023

4. Aruna Rao, S.L., Latha Kalyampudi, P.S., Suguna Kumari, D., Aruna Jyothi, A., Srinivasulu, B. (2023) published a paper titled "Implementing Digitalization in Square Blockchain Technology Using HDS Methodologies", in Intelligent Computing and Communication. ICICC 2022. Advances in Intelligent Systems and Computing, vol 1447. Springer, Singapore. https://doi.org/10.1007/978-981-99-1588-0_33 , 20th September 2023

5. B Srinivasulu, Aruna Rao S L, published a paper titled "Performance Analysis of Various Machine Learning based Algorithms on Cybersecurity Approaches", in International Conference on Expert Clouds and Applications (ICOECA 2023) , First Online: 02 July 2023, pp 833–843, Springer Lecture Notes in Networks and Systems ((LNNS, volume 673)) ISSN: 2367-3370,   https://link.springer.com/chapter/10.1007/978-981-99-1745-7_60 , (SCOPUS)

2022

6. Rama Devi S, Subetha T, Aruna Rao S.L, Mahesh Kumar M, published a paper titled "Enhanced Learning Outcomes by Interactive Video Content – H5P in Moodle LMS" in 6th International Conference on Inventive Systems and Control (ICISC 2022), Year: January 2022 Pages: 161-175 , DOI: , Springer – Lecture Notes in Networks and Systems, ISSN: 2367-3370, (SCOPUS)

2016

7. Aruna Rao S.L, K.V.N.Sunitha published a paper titled "Position Verification Technique for Secure Geographical Routing in MANET " in Thirteenth International Conference on Wireless and Optical Communications Networks (WOCN) Year: 2016 Pages: 1 – 12, DOI: 10.1109/ WOCN. 2016.7759889 , IEEE Conference Publications, ISSN: 2151-7703, (SCOPUS)

BOOK CHAPTER PUBLISHED

2024

1. B. Srinivasulu, Srinivasa Rao Dhanikonda, Aruna Rao S. L., Ravikumar Mutyala, Mukhtar Sofi, Obula Reddy Bandi, published as chapter 15 titled "LLRBFNN Deep Learning Model-Based Digital Twin Framework for Detecting Breast Cancer", in Exploring the Advancements and Future Directions of Digital Twins in Healthcare 6.0, Date: June, 2024, Pages: 320, DOI: 10.4018/979-8-3693-5893-1, ISBN13: 9798369358931, https://www.igi-global.com/book/exploring-advancements-future-directions-digital/342105 (SCOPUS)

2022

2. Aruna Rao S.L, P.S.Latha Kalyampudi, Suguna Kumari D, Aruna Jyothi A and Srinivasulu B, published a paper titled "Implementing of Digitalization in square Block Chain Technology using HDS Methodologies" in 6th International Conference on Intelligent Computing and Communication ICICC-2022, https://link.springer.com/book/9789819915873 (WoS)

2016

3. Aruna Rao S.L, K.V.N.Sunitha published a chapter titled "Secure Geographical Routing with an efficient Location verification mechanism" in book titled "Innovations in Computer Science & Engineering", Springer LNS Series, ISBN: 978-981-10-3817-4, July 2016. https://www.researchgate.net/publication/318172677_Secure_Geographical_Routing_Using _an_Efficient_Location_Verification_Technique (SCOPUS)

BOOKS PUBLISHED

1. Published a book titled "NETWORK SECURITY", ISBN-13: 979-8671985436, Independently published on 3rd August 2020

Publications:

International Level:
- No. of International conferences   : **7**
- No. of International Journal   : **9**
- Book Chapters   : **3**

National Level:
- No. of National conferences   : **0**

INVITED TALKS

1. Invited for a talk on" A Tough Transition from two different worlds" in Campus to Corporate track at GHCI 2016
2. Guest lecture for I Year II semester MTech-CNIS , VNRVJIET , Hyderabad on the topic "Routing Algorithms in MANETs" under TEQIP

FDP's Conducted

1. Organized TEDX BVRIT Hyderabad event on 30th December 2023.

2. A one week National Level FDP on "Cloud Infrastructure (AWS)" which earned a prestigious place in India Book of Records during the period of 21st to 25th August 2023 in association with Brain O Vision Solutions India Pvt Ltd and AICTE with 28000+ faculties from 400+ Host institutions

3. A one week FDP on "Data Science & Big Data Analytics" held from 06th March to 11th March 2017 organized in BVRIT Hyderabad College of Engineering for women in collaboration with NIT

4. One Week Faculty Development Program on "Machine Learning Fundamentals "organized by BVRIT HYDERABAD College of Engineering for Women in association with Institutions Innovation Council , Tech Blitz and Departments of CSE (AI&ML), CSE & IT from 30th August 2021 to 04th September 2021

5. One Week Faculty Development Program on "Artificial Intelligence" Department of CSE & IT in association with NYCI & Brain O Vision Solutions India Pvt. Ltd, BVRIT HYDERABAD College of Engineering for Women, Hyderabad, from 22nd May to 26th May ,2020.

6. One week workshop on " Android Mobile Application Development" for III year Students.

7. Two week workshop on "Cross Platform Mobile Application Development" from 26th Dec-30th Dec2014, 20th Feb-22nd Feb 2015 for II year Students .

8. One Day Workshop on "Data Structures and Algorithms behind Social Networks" on 10th Jan 2015 by Being Zero for IIIyear Students.

9. Five day workshop conducted on "Cross Platform Mobile Application Development" by EduKonnect from 24th Nov'2015 to 28th Nov'2015 for 2nd Yr students.

10. Two Day workshop (21st Feb to 22nd Feb'14) on "Android Application Development, orgranized by Department of IT, BVRIT Hyderabad.

FDP'S ATTENDED

1. "Indo-US Workshop on Artificial Intelligence & Data Science -2023" organized by Mahindra University, Ecole Centrale School of Engineering on 17th March 2023

2. 40 Hour Online FDP on " Deep Learning and AI Applications" Sponsored by Ministry of Electronics and Information Technology (MeitY) GoI, organized by E&ICT Academy, NIT Warangal and G Narayanamma Institute of Technology & Science (for Women), during 28th August to 7th September 2021

3. One Week Faculty Development Program on "Machine Learning Fundamentals "organized by BVRIT HYDERABAD College of Engineering for Women in association with Institutions Innovation Council , Tech Blitz and Departments of CSE (AI&ML), CSE & IT from 30th August 2021 to 04th September 2021

4. One Week Faculty Development Program on Artificial Intelligence organised by Department of Electrical Engineering BANSAL INSTITUTE OF ENGINEERING AND TECHNOLOGY, Lucknow (U.P.) India from 19th July to 25th July 2021

5. One week AICTE sponsored STTP on "Recent Trends in IoT " from 14th December 2020 to 19th December 2020 organized by Anurag Engineering College, Hyderabad

6. Fifteen days Online FDP on "cyber security" from 24th August 2020 to 09th September 2020 organized by JNTUH Hyderabad

7. Five Day FDP on "Artificial Intelligence & Machine learning" organized by CMR Technical Campus in association with AI Center of Excellence partnered with Blackbuck Engineers from 18th May to 22nd May, 2020.

8. Five Day FDP on "Data Analytics" organized byai, a nationwide initiative by Bennet University, from 13th May to 17th May, 2020.

9. Five Day FDP on "Latex" organized by Sanjay Ghodawat Univerisity, Kolhapur, in association with Spoken Tutorial, IIT Bombay, from 27th April to 2nd May ,2020.

10. Five Day FDP on "Cyber security attacks & Defense" organized byIndian Servers, from 18th April to 20th April ,2020.

11. Three Day Workshop on " NAAC's New Frame Work for Accreditation and Assessment of HEI Opportunities and Challenges NAAC" organized by Narayanamma Institute of Technology and Science, Hyderabad, from 19th September to 21st September ,2019

12. Three Day FDP on " Professional Etiquette & Emotional Intelligence" organized by Department of Basic Sciences & Humanities at BVRIT HYDERABAD College of Engineering for Women, Hyderabad, from 8th July to 10th July ,2019.

13. One Day workshop on "Block Chain Technologies", organized by Centre for Development of Advanced Computing (C-DAC), Hyderabad in association with Ministry of Electronics and Information Technology (MeitY) and JNTUH on 22ndJune

14. Two Day Symposium on Computer Systems "Indosys 2018", held at IIT Hyderabad, Kandi, on September 08-09, 2018.

15. A one week FDP on "Security, Privacy, Challenges and Opportunities with current tools and Techniques: A Research Perspective " from 25th June 2018 to 05th July 2018 at Narasimha Reddy Engineering College

16. A Guest Lecture on Artificial Intelligence by D.K. Subramaniam on 4th April 2018 at VEDIC

17. A three day workshop on "Inspire – Impact – Introspect – Leadership Program" from 12th October 2017 to 14thOctober 2017 at VEDIC

18. A One day workshop on "C PROGRAMMING COLLOQUIUM" from 10thJune 2017 at VEDIC

19. A one week FDP on "Programming with Ruby" from 29thJune 2017 to 4thJuly 2017 2017 at BVRIT HYDERABAD College of Engineering for Women in association with IITB, Spoken Tutorial

20. A one week FDP on "Python, Scilab, Drupal" from 04thNov 2016 to 10thNov 2016 BVRIT HYDERABAD College of Engineering for Women in association with IITB, Spoken Tutorial

21. A three day workshop on "Learning and Leading " on 22nd to 24th September 2016 at VEDIC

22. A one day workshop on "ART OF WRITING RESEARCH PROJECT " on 7th June 2016 at VEDIC

23. Awareness workshop on "Outcome Based Education and Accreditation" on 14th September 2015 at JNTU Hyderabad under TEQIPP-II, JNTUHCEH

24. A two day workshop on "Big Data and Data Analytics" held from 12th-13th September 2014 held under IEEE at BVRIT Hyderabad College of Engineering for women, Hyderabad.

Certifications:

1. Completed "Getting Started with Deep Learning" NVDIA DLI Certificate on 19th July 2022
2. Completed course on "Block Chain Essentials" Cognitive Class AI, 11th April 2020
3. Completed course on "Programming for Everybody (Getting Started with Python)" University of Michigan, Coursera on 05th Jan 2020
4. Completed course on "Getting Started with Azure DevOps Boards" by Coursera Project Network on 28th Jan 2022
5. Completed 4 weeks of 2nd Edition of The Hague India Cyber Security Summer School 2019
6. Completed Cambridge Advanced English Certification in March 2019
7. Completed training & Certification on "Java Fundamentals" in March 2017 from Oracle Academy in collaboration with TASK.
8. Completed training &certification on "Latex" in September 2016, from Spoken Tutorial from IIT