Name of Faculty	Dr. Rajanikanth Aluvalu	
Designation	Professor	
Nature of Job/Appointment	Regular	
Date of Joining	29-12-2021	
E-mail	rajanikanth_it@cbit.ac.in	

Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (CSE)	Awarded
PG	M. Tech. (CSE)	First class
UG	B. E. (CSE)	First class

Work Experience	
Teaching	18 Years
Research	--
Industry	1 Year 4 Months
Others	

Area of Specialization	High Performance Computing, Bigdata and AI
Professional Memberships	- Senior Member IEEE (94246417) - Member ACM (1647988) - Member, Machine Intelligence Research Laboratory, USA. - Life member ISTE (LM61123). - Member EAI (European Alliance for Innovation).
Responsibilities held at Institution Level	- Member IIC 4.0 - Member ARIIA
Responsibilities held at Department Level	Coordinator ARIIA
Research Guidance	- Co-Guide to Mr. K.L. Raghavendhar Reddy pursuing PhD from RK University, Rajkot. - Co-Guide to Mr. Hanuman Reddy Pursuing PhD from RK University, Rajkot.
Awards Received	- Received "**Outstanding Advisor Award**" from IEEE, Hyderabad Section. - Received "**Kalpacharya Award**" from Bharath Excellence Awards" - Received "**Distinguished Faculty Fellow award**" from IUCEE during ICTIEE-2018 at Bennett University Greater Noida. - Received "**Bronze level Partnership** as appreciation for the year 2013, 2014 and 2015 from Infosys Campus connect.
Courses Handled at Under Graduate / Post Graduate Level.	Cloud computing, data Compression, BigData Analytics, DBMS, Python for Data Science, Artificial Intelligence

No. of Papers Published	National Journals – 0	International Journals – 48
	National Conference – 01	International Conference – 33
	Scopus Profile	https://www.scopus.com/authid/detail.uri?authorId=56440058500
	Google scholar profile	https://scholar.google.co.in/citations?user=rHQkh6MAAAAJ&hl=en&oi=ao
	Web of Science Profile	https://www.webofscience.com/wos/author/record/1751950?utm_campaign=researcher_id_badge
	Orcid Profile	https://orcid.org/0000-0001-8508-6066

Projects Carried out

- Co-coordinator for AICTE-Margadarshan Scheme, Received Funding of INR 20 Lakhs.
- Coordinator Business Incubator, MSME
- Received fund to organize Entrepreneurship awareness camps under DST-NIMAT Project for the year 2017,2018 and 2020.

Patents

1. **rajanikanth aluvalu**, dr.m.a.jabbar,vivek kulkarni, yekkala indu,"e-heart(fitness band)",**indian patent/201841007881 a**
2. **rajanikanthaluvalu**,dr.m.a.jabbar,k.srikanth,t.bhavana,p.saisandesh,"analysis of agriculture data using machine learning to maximize rice yield crop production (e-rice)",**indian patent/201841015281a**
3. **rajanikanth aluvalu**, dr.m.a.jabbar,dilip varma sagi,k.srikanth,m.d.asif,"accident suraksha" (crash reporter)",**indian patent/201841024721 a**, date of filing:03/07/2018 .
4. uma maheshwari,**Rajanikanth aluvalu**,srikanth reddy,venkateshwara reddy,hanuman reddy shoba rani "student mood prediction in the digital classrooms using facial expression" **indian patent/ 201941018492 a**
5. v.uma maheswari, varaprasad g., s.viswanadha raju, **rajanikanth aluvalu** "24x7 patient monitoring in smart hospitals using facial expressions" **indian patent /201941011134 a .**
6. **rajanikanth aluvalu**,uma maheswari v, sangeetha gupta, ma jabbar, **indian patent / 202041008575 a**, entitled " smart city initiatives on secure public cloud using open hardware and software standards.
7. **rajanikanth aluvalu**, saiprasad aluvala,ma jabbar, **indian patent/ 201841009964** a, entitled "circular stacked dgs antenna configuration for wireless applications"

Technology Transfer

https://www.utorai.com/

Invited Speaker

1. Resource person for AICTE-AQIS Sponsored STTP organized by school of engineering RK University on "Applications of Artificial Intelligence and Machine Learning" during 25th June 2021 to 26th June 2021.

2. Delivered session on "Pedagogies for blended learning" in National level symposium on "Enhancing quality and driving change in higher and technical education through NEP "on 27th April 2021.

3. Delivered session on "AI as service" in 5-day national workshop on "emerging tools and technology in cloud computing" at sardar patel college of engineering, surat from 2nd to 6th November 2020.

4. Delivered Keynote session in "2nd International conference on recent trends in engineering technology and management" on 20th June 2020 at Sreyas. institute of engineering and technology.

5. Delivered webinar session on "careers in IT" on 13th June 2020 for EKSAQ,Hyderabad.

6. Delivered webinar session on "Preparing effective Business plan" on 2nd May for Wission talks,Hyderabad.

7. Delivered webinar session on "cloud computing Fundamentals" on 27th April under IEEE - CS,Student branch at sreyas institute of Technology,Hyderabad.

8. Delivered webinar session on "Writing Effective course outcomes" under lockdown webinar series on 8th April 2020 for Stumagz,Hyderabad.

9. Delivered webinar session on "Course design" under lockdown webinar series on 6th April 2020 for Stumagz,Hyderabad.

10. Delivered session on "campus startups-Need of the hour" on 6th March 2020 at sreyas institute of Technology,Hyderabad.

11. Delivered Technical talk on "Agile-extreme Programming" at Six Day AICTE AQIS Sponsored STTP on "Perspectives of Data Analytics with advances in software Engineering on 29th Febraury-2020 at Thakur college of Engineering and Technology,Mumbai

12. Delivered Key Note talk on "cloud computing Research perspectives" at IC-ICN-2020 international conference organized by Thakur college of Engineering and Technology,Mumbai on 28th Febarury 2020.

13. Trained faculty on "Outcomes based education" and getting ready for NBA Tier-1 Accreditation on session on 23rd and 24th February 2019 at Marwadi University,Rajkot,Gujarat.

14. Delivered Technical Session on "Future Cloud Transformation" at Geethanjali College of Engineering,Hyderabad on 24th January 2019.

15. Delivered session on "Intelligent Cloud" on 4th january,2019 in IEEE-AHCSSC-19 at vardhaman college of engineering.

16. Delivered Session on" Digital Bloom's taxonomy" On 12th June,2018 in Two day FDP on "Outcome based education" at Sreyas institute of engineering and Technology,Hyderabad.

17. Delivered Session on " ICT in Education " on 7th May 2018 in AICTE sponsored ISTE one week Faculty Refresher course on "pedagogical training for outcome based education" at Vardhaman College of Engineering, Hyderabad.

18. Delivered session on "Promoting active learning and student centered Pedagogy" on 26th November at CSI,Hyderabad Chapter.

19. Delivered webinar on "University Bridge Program: Innovation at the grass roots of learning in higher education" on Wednesday, May 18, 2016 through IUCEE.

20. Delivered session on "Cloud Computing, Research Perspective" in a one-week FDP on Emerging Trends in Computer Science & Engineering" on 9th June 2017 at Department of CSE, Vardaman College of Engineering, Hyderabad.

No. of Books/Chapter Published with details

Books:

1. "Computer Visison" by Pancham Shukla, Rajanikanth Aluvalu,Shilpa Gite, Uma maheswari V published by De-Gruyters, German Publishers.
2. "Evolution and Applications of Quantum Computing"
3. " edited by Sachinandan mohanthy, Rajanikanth Aluvalu,Saritha Mohanthy published by Wiley.
4. "The fusion of internet of things, artificial intelligence, and cloud computing in health care" bypatrick siarry, m.a. jabbar,rajanikanth aluvalu,ajith abraham,ana madureira published by springer.
5. "Career guidance handbook for engineers" by rajanikanth aluvalu, uma maheswari v & m.d.n. akash , published by notion press.
6. "A trusted security and authentication model for cloud computing: security and authentication models" by krishna keerthi chennam , akka lakshmi mudanna , rajanikanth aluvalu published by lambert academic press.
7. "Access control models for cloud computing" by rajanikanth aluvalu and akka lakshmi muddana published by lambert academic press.

Book chapters:

1. Chennam, K. K., Mudrakola, S., Maheswari, V. U., Aluvalu, R., & Rao, K. G. (2023). Black Box Models for eXplainable Artificial Intelligence. In Explainable AI: Foundations, Methodologies and Applications (pp. 1-24). Springer, Cham.
2. Kantipudi, M. V. V., Moses, C. J., Aluvalu, R., & Kumar, S. (2021). Remote Patient Monitoring Using IoT, Cloud Computing and AI. In Hybrid Artificial Intelligence and IoT in Healthcare (pp. 51-74). Springer, Singapore.
3. Deshpande N.M., Gite S.S., Aluvalu R. (2022) Microscopic Analysis of Blood Cells for Disease Detection: A Review. In: Mehta M., Fournier-Viger P., Patel M., Lin J.CW. (eds) Tracking and Preventing Diseases with Artificial Intelligence. Intelligent Systems Reference Library, vol 206. Springer, Cham. https://doi.org/10.1007/978-3-030-76732-7_6 8.
4. Chennam, Krishna Keerthi, V. Uma Maheshwari, and Rajanikanth Aluvalu. "Maintaining IoT Healthcare Records Using Cloud Storage." *IoT and IoE Driven Smart Cities*. Springer, Cham, 2022. 215-233.
5. Maheswari, Uma V., Rajanikanth Aluvalu, and Krishna Keerthi Chennam. "Application of machine learning algorithms for facial expression analysis." Machine Learning for Sustainable Development. De Gruyter, 2021. 77-96. 10.
6. Chennam, Krishna Keerthi, Rajanikanth Aluvalu, and S. Shitharth. "An Authentication Model with High Security for Cloud Database." Architectural Wireless Networks Solutions and Security Issues: 13.
   Aluvalu, Rajanikanth, et al. "Data Security in Cloud Computing Using Abe-Based Access Control." *Architectural Wireless Networks Solutions and Security Issues*. Springer, Singapore, 2021. 47-61.

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (**Attended and/or organized**).

Conferences Organized:

1. Organized ICMLSC-2020, International conference on machine learning, Security and Cloud computing, 18-19 December, Vardhaman College of Engineering, Hyderabad, India.

2. Organized ICMLIP-2020, International conference on machine learning and Information processing, 28-29 November, Vardhaman College of Engineering, Hyderabad, India.

3. Organized special session on" Emerging technologies and applications for smart city development" in international conference on smart technologies in Computing, Electrical and Electronics, at Reva University Bengaluru.

4. Organizing invited session on "Artificial Intelligence and Image processing for security applications" during WMSCI-2020 WMSCI Conference will be held September 13-16, 2020, in Orlando Florida.

5. National advisory member for international conference on intelligent computing and networking (ICICN-2020), Thakur college of engineering and technology, Mumbai, February,2020.

6. Organized International Conference on Machine learning and soft computing, June 21-22nd 2018, Vardhaman college of Engineering, Hyderabad, India.

7. Organized, SoCPaR 2019,11th International Conference on Soft Computing and Pattern Recognition, Vardhaman college of engineering, Hyderabad, India.

8. Organized, NaBIC 2019, 9th World Congress on Nature and Biologically Inspired Computing, Vardhaman college of engineering, Hyderabad, India.

FDPS/STTPS Organized:
1. One week FDP on "Outcome based education and accreditation process" organized by Vardhaman College of Engineering under AICTE Margadarshan Scheme from 23rd to 28th August 2021.
2. One week FDP on "Quality education through OBE" organized by Vardhaman College of Engineering under AICTE Margadarshan Scheme from 13th to 17th
July 2020.
3. Organized TEDxVCE on 21st December 2019.
4. Organized 5 Day Short Term Training Programme (STTP) on "The Next Gen Cloud" from 11th to 15th March 2019 at Vardhaman College of Engineering.
3. Organized High Impact Induction program of Infosys for First year students.
4. Organized 18 workshops of 2-week duration and fully funded by MHRD at RK University, Rajkot.
5. Organized national level SPEED-IUCEE workshop.
6. Organized One week FDP on Mobile application development scheduled by Infosys for campus connect colleges at RK University.
7. Organized Two-week FDP In entrepreneurship by EDII and DST at Vardhaman College of engineering.
8. Organized Two-week MHRD Sponsored ISTE Main Workshop on Computer Programming from may20th 2014 to June 21st 2014 at RK University.

Attended FDPS:
1. Participated in two-week short-term refresher course on "IoT simulation by Fog Computing and edge computing using open-source tools in two phases at kits Warangal.
   a. Phase - 1: 15th to 20th February 2021
   b. Phase -2 :22nd to 27th march 2021
2. Participated in two-week FDP on "data sciences and Analytics" organized by St. Martin college of Engineering from 9th December to 21st December 2019.
3. Undergone Innovation Ambassador training program from conducted by MoE Innovation cell from 30th June 2021 to 30th July 2021.
4. Attended national IP literacy week organized under kalam program for IP literacy and week from 15th to 23rd October 2020.
5. Attended one week FDP on "practicing cloud computing with AWS" organized by KL University from 20 to 25th September 2021.
6. Attended 5 – Day online workshop on "climate resilient precision agriculture to enhance the natural capital in developing countries: An inclusive Approach" organized by NIT Suratkal and sponsored by MHRD government of India from 8th to 12th march 2021.
7. Attended one week FDP on "artificial Intelligence and machine learning organized by E & ICT Academy and Vardhaman College of engineering from 5th to 10th February 2018.
8. Attended One week FDP on "cloud computing" organized by bennet university from May 27th to 31st 2020.

9. MHRD Government of India sponsored refresher program on "Algorithms, computation and compilation" from 25th August to 6th September 2008 at NOT Warangal.

Details of Journal Publications/ Conferences (**National and International**)

International Journals

1. Reddy, A. M., Reddy, K. S., Jayaram, M., Venkata Maha Lakshmi, N., Aluvalu, R., Mahesh, T. R., ... & Stalin Alex, D. (2022). An Efficient Multilevel Thresholding Scheme for Heart Image Segmentation Using a Hybrid Generalized Adversarial Network. Journal of Sensors, 2022.

2. Bathla, G., Bhadane, K., Singh, R. K., Kumar, R., Aluvalu, R., Krishnamurthi, R., ... & Basheer, S. (2022). Autonomous Vehicles and Intelligent Automation: Applications, Challenges, and Opportunities. Mobile Information Systems, 2022.

3. Senthil Kumar, G., Ramana, K., Madana Mohana, R., Aluvalu, R., Gunjan, V. K., & Singh, N. (2022). An Effective Bootstrapping Framework for Web Services Discovery Using Trigram Approach. Mobile Information Systems, 2022.

4. Devarajan, D., Alex, D. S., Mahesh, T. R., Aluvalu, R., Kumar, V. V., Maheswari, U., & Shitharth, S. (2022). Cervical Cancer Diagnosis Using Intelligent Living Behaviour of Artificial Jellyfish Optimized with Artificial Neural Network. IEEE Access.

5. Kothi Laxman, R. R., Lathigara, A., Aluvalu, R., & Viswanadhula, U. M. (2022). PGWO-AVS-RDA: An intelligent optimization and clustering-based load balancing model in cloud. Concurrency and Computation: Practice and Experience, 34(21), e7136.

6. Maheswari, V. U., Aluvalu, R., Kantipudi, M. P., Chennam, K. K., Kotecha, K., & Saini, J. R. (2022). Driver Drowsiness Prediction Based on Multiple Aspects Using Image Processing Techniques. IEEE Access.

7. Monica, K. M., Parvathi, R., Gayathri, A., Aluvalu, R., Sangeetha, K., & Simha Reddy, C. V. (2022). Hybrid Optimized GRU-ECNN Models for Gait Recognition with Wearable IOT Devices. Computational Intelligence and Neuroscience, 2022.

8. Ramana, K., Aluvala, R., Rudra Kumar, M., Nagaraja, G., Vijaya Krishna, A., & Nagendra, P. (2022). Leaf Disease Classification in Smart Agriculture using Deep Neural Network Architecture and IoT. Journal of Circuits, Systems and Computers.

9. Ramana, K., Aluvalu, R., Gunjan, V. K., Singh, N., & Prasadhu, M. N. (2022). Multipath Transmission Control Protocol for Live Virtual Machine Migration in the Cloud Environment. Wireless Communications and Mobile Computing, 2022.

10. Swapna, M., Viswanadhula, U. M., Aluvalu, R., Vardharajan, V., & Kotecha, K. (2022). Bio-Signals in Medical Applications and Challenges Using Artificial Intelligence. Journal of Sensor and Actuator Networks, 11(1), 17.

11. Kantipudi, M. P., Aluvalu, R., & Raisinghani, M. S. (2022). Insights on Implications of Cognitive Computing in Leveraging Online Education Systems. International Journal of Online Pedagogy and Course Design (IJOPCD), 12(1), 1-16.

12. Kusal, Sheetal, Shruti Patil, Ketan Kotecha, Rajanikanth Aluvalu, and Vijayakumar Varadarajan. "AI Based Emotion Detection for Textual Big Data: Techniques and Contribution." Big Data and Cognitive Computing 5, no. 3 (2021): 43.

13. Aluvalu, Rajanikanth, Uma Maheswari V. "Pedagogies for Blended TLP." Journal of Engineering Education Transformations 35 (2021): 93-96.

14. Deshpande, Nilkanth Mukund, Shilpa Gite, and Rajanikanth Aluvalu. "A review of microscopic analysis of blood cells for disease detection with AI perspective." PeerJ Computer Science 7 (2021): e460.

15. Kantipudi, MVV Prasad, C. John Moses, RajaniKanth Aluvalu, and Golyalla Tarun Goud. "Impact of Covid-19 on Indian Higher Education." Library Philosophy and Practice (2021): 1-11.

16. Gupta, Sangeeta, and Rajanikanth Aluvalu. "Pre-Processed Tweets for Secure Capital Market Analysis Using Cloud." International Journal of Sociotechnology and Knowledge Development (IJSKD) 13.1 (2021): 1-7.

17. Gupta, Sangeeta, and Rajanikanth Aluvalu. "Twitter Based Capital Market Analysis Using Cloud Statistics." International Journal of Sociotechnology and Knowledge Development (IJSKD) 11.2 (2019): 54-60.

18. Aluvalu, Rajanikanth, Vanraj Kamliya, and Lakshmi Muddana. "HASBE access control model with Secure Key Distribution and Efficient Domain Hierarchy for cloud computing." International Journal of Electrical and Computer Engineering 6.2 (2016): 770.

19. Aluvalu, RajaniKanth. "University Bridge Program: Innovation at the Grass Roots of Learning in Higher Education." Journal of Engineering Education Transformations (2016).

20. Aluvalu, Rajani Kanth, Vivek Kulkarni, and Md Asif. "Handling Classrooms with Students having Heterogeneous Learning Abilities." Journal of Engineering Education Transformations 30.3 (2017): 229-234.

21. Aluvalu, RajaniKanth, and Lakshmi Muddana. "RISK AWARE HIERARCHICAL ATTRIBUTE SET-BASED ENCRYPTION (RA-HASBE) ACCESS CONTROL MODEL." Annals. Computer Science Series 14.2 (2016).

22. Aluvalu, RajaniKanth, and Tirthraj Chauhan. "CRIME PREDICTIVE MODEL USING BIG DATA ANALYTICS." Annals. Computer Science Series 14.2 (2016).

23. Byreddy, Supriya, and RajaniKanth Aluvalu. "Hybridization of Web Content and Structure Mining (HWCSM) Technique by means of Content Based Ranking Algorithm." IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661.

International /National Conferences

1. Maheswari, V. U., Aluvalu, R., & Mudrakola, S. (2022, March). An Integrated Number Plate Recognition System through images using Threshold-based methods and KNN. In 2022 International Conference on Decision Aid Sciences and Applications (DASA) (pp. 493-497). IEEE.

2. Reddy, H., Lathigara, A., & Aluvalu, R. (2021, December). Literature Survey on Adaptive Virtual Machine Scheduling Strategy to Optimize Load Balancing in Cloud Environment. In 2021 International Conference on Decision Aid Sciences and Application (DASA) (pp. 1092-1098). IEEE.

3. Kandakatla, R., Aluvalu, R., Devireddy, S., Kulkarni, N., & Joshi, G. (2021, November). Role of Indian Higher Education Institutions towards Aatmanirbhar India: Government Policies and Initiatives to promote Entrepreneurship and Innovation. In 2021 World Engineering Education Forum/Global Engineering Deans Council (WEEF/GEDC) (pp. 8-14). IEEE.

4. Reddy, K. R., Lathigara, A., & Aluvalu, R. (2021). Survey on load balancing techniques and resource scheduling in cloud computing.IET

5. Chennam, Krishna Keerthi, Rajanikanth Aluvalu, and V. S. Devi. "Smart cities data analysis using fog computing." (2021): 290-295.

6. Aluvalu, R.; Jabbar, M.A.: 'Handling data analytics on unstructured data using MongoDB', IET Conference Proceedings, , p. 41 (5 pp.)-41 (5 pp.), DOI: 10.1049/cp.2018.1409.

7. Aluvalu, R. and Muddana, L., 2016, December. A dynamic attribute-based risk aware access control model (DA-RAAC) for cloud computing. In *Computational Intelligence and Computing Research (ICCIC), 2016 IEEE International Conference on* (pp. 1-5). IEEE.

8. Aluvalu, R. and Muddana, L., 2015. A survey on access control models in cloud computing. In *Emerging ICT for Bridging the Future-Proceedings of the 49th Annual Convention of the Computer Society of India (CSI) Volume 1*(pp. 653-664). Springer, Cham.

9. Aluvalu, R.K. and Muddana, L., 2015, October. Access control model with enhanced flexibility and scalability for cloud. In *Green Computing and Internet of Things (ICGCIoT), 2015 International Conference on* (pp. 355-359). IEEE.

10. Jabbar, M.A., Aluvalu, R. and Reddy, S., 2017, February. Cluster Based Ensemble Classification for Intrusion Detection System. In *Proceedings of the 9th International Conference on Machine Learning and Computing* (pp. 253-257). ACM.

11. Jabbar, M.A. and Aluvalu, R., 2017. RFAODE: A Novel Ensemble Intrusion Detection System. *Procedia Computer Science*, *115*, pp.226-234.

12. Jabbar, M.A.; Aluvalu, R.: 'Intrusion Detection System for the Internet of Things: A Review', IET Conference Proceedings, , p. 51 (6 pp.)-51 (6 pp.), DOI: 10.1049/cp.2018.1419.