

## CURRICULUM VITAE

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**EDUCATION** :

- Ph.D. (CS&E): National Institute of Technology Karnataka, Surathkal, INDIA.
- M.Tech. (CS&E) : National Institute of Technology Karnataka, Surathkal, INDIA, I Rank with Gold Medal.
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**RESEARCH INTERESTS** : Cloud Computing, Big Data Analytics, Distributed Systems, Process mining, Social networks, Software Engineering

### **PAPERS PUBLISHED IN INTERNATIONAL JOURNALS**

1. Rashmi Adyapady R., B. Annappa, An Ensemble Approach using a Frequency-Based and Stacking Classifiers for Effective Facial Expression Recognition, *Multimedia Tools and Applications*, October 2022, pp. 1-24, SCI-E, Scopus, <https://link.springer.com/article/10.1007/s11042-022-13940-7>
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3. Rashmi Adyapady R., B. Annappa, A comprehensive review of facial expression recognition techniques, *Multimedia Systems*, July 2022, <https://doi.org/10.1007/s00530-022-00984-w>
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5. Naela Rizvi, Dharavath Ramesh, Lipo Wang, and Annappa B, A Workflow Scheduling Approach with Modified Fuzzy Adaptive Genetic Algorithm in IaaS Clouds, *IEEE Transactions on Services Computing*, May 2022
6. Prasenjit Kumar Das, Nidul Sinha and Annappa, "A Neural Network Based Heuristic Phishing Pattern Prediction Method in Cloud", *TELEMATIQUE Journal*, Vol 21, No 1 (2022), pp.1319 - 1328, ESCI
7. Saraswati Koppad, Annappa B, Katrina Nash, Georgios V. Gkoutos, and Animesh Acharjee, Machine Learning-Based Identification of Colon Cancer Candidate Diagnostics Genes, *Biology*, 2022; 11(3):365. SCI-E, Scopus, <https://doi.org/10.3390/biology11030365>
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Approach, Journal of Algebraic Statistics, Vol. 13 No. 2 (2022), pp.1383 - 1390, 26-05-2022

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11. Ashwin Kumar Kulkami, B. Annappa, GPU-aware resource management in heterogeneous cloud data centers, The Journal of Supercomputing, Springer Nature, 77, April 2021, pp.1-28 <https://doi.org/10.1007/s11227-021-03779-4>, SCI, SCIE
12. Bhawna Nigam, Ayan Nigam, Rahul Jain, Shubham Dodia, Nidhi Arora, B. Annappa, COVID-19: Automatic detection from X-ray images by utilizing deep learning methods, Expert Systems With Applications(ESWA),176(2021), 1-11, SCI-E, Scopus, Web of Science, <https://doi.org/10.1016/j.eswa.2021.114883>
13. Manjunatha S, Annappa B, Real-time Big Data Analytics Framework with Data Blending Approach for Multiple Data sources in Smart City Applications, Journal of Scalable Computing: Practice and Experience, vol 21, no. 4, 2020, pp.611-623, Scopus, ESCI, <https://doi.org/10.12694/scpe.v21i4.1759> 10.12694/SCPE.V21I4.1759
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2. Vivek Jain, Annappa B. and Shubham Dodia, Optimizing Super Resolution Generative Adversarial Networks, International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2022) to be held on September 23-25, 2022 at BITS Goa, Scopus indexed Springer Book series, 'Lecture Notes In Networks And Systems'
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4. Rashmi Adyapady R., B. Annappa, Learning Engagement Assessment in MOOC Scenario, 2022 IEEE CONECCT, 8th-10th July 2022, Bangalore
5. Gowtham L, Annappa B, FedPruNet: Federated Learning Using Pruning Neural Network, IEEE TENSYP, IIT Mumbai, 1st -3rd July 2022
6. Gunda Sai Yeshwanth, Annappa B., Shubham Dodia, Manoj Kumar M, Infant Brain MRI Segmentation using Deep Volumetric U-Net with Gamma Transformation, 7th International Conference on "Emerging Research in Computing, Information, Communication and Applications - ERCICA 2022", NMIT Bangalore, 25th -26th February, 2022
7. Abhinav Antani, Annappa B., Shubham Dodia, Manoj Kumar M, Bankruptcy Prediction using Bi-level Classification Technique, 7th International Conference on "Emerging Research in Computing, Information, Communication and Applications - ERCICA 2022", NMIT Bangalore, 25th -26th February, 2022, received Best paper award.
8. Shubham Dodia, Annappa B, Padukudru A. Mahesh, A Novel Artificial Intelligence-based Lung Nodule Segmentation and Classification System on CT Scans, 6th IAPR International Conference on Computer Vision and Image Processing 2021 (CVIP-2021), pp.552-564, December 3-5, 2021, [https://doi.org/10.1007/978-3-031-11349-9\\_48](https://doi.org/10.1007/978-3-031-11349-9_48)
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11. Sneha H R, Annappa B, TORA: Text Summarization using Optical Character Recognition and Attention Neural Networks, Sixth International Conference on Emerging Research in Computing, Information, Communication and Applications- (ERCICA-2020)
12. Manoj Kumar MV, Prashanth B S, Sneha H R, Likewin Thomas, Annappa B, YVS Murthy, Process Logo: an Approach for Control-flow Visualization of Information System Process in Process Mining, Sixth International Conference on Emerging Research in Computing, Information, Communication and Applications- (ERCICA-2020)
13. Adya Kiran, Samvid Dharanikota, Annappa Basava, Blockchain based Data Access Control using Smart Contracts, 2019 IEEE Region 10 Conference (TENCON 2019), Kochi, Kerala, 17-20 Oct. 2019, IEEE, pp.2335-2339, 10.1109/TENCON.2019.8929451
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16. Likewin Thomas, M V Manoj Kumar, Annappa, A Healthcare management using clinical decision support system, 2018 3rd International Conference on Contemporary Computing and Informatics (IC3I), 10th -12th Oct. 2018, pp. 342 - 347, 10.1109/IC3I44769.2018.9007272
17. Sanjeev K Cowlessur, B Annappa, M V Manoj Kumar, Likewin Thomas, M M Sneha, B H Puneetha, Alphabetic Cryptography: Securing Communication over Cloud Platform, Fifth International Conference on Information System Design and Intelligent Applications (INDIA 2018), Mauritius 20th-23rd, July 2018, Springer, pp.195-206
18. Sanjeev K Cowlessur, B Annappa, B, KavyaSree, Shivani Gupta, Chandana Velaga, Measuring the Influence of Moods on Stock Market Using Twitter Analysis, Fifth International Conference on Information System Design and Intelligent Applications (INDIA 2018), Mauritius 20th-23rd, July 2018, Springer, pp.315-324
19. Nagaratna B. Chittaragi, Asavari Limaye, N. T Chandana, B Annappa, Shashidhar G. Koolagudi, Automatic Text-Independent Kannada Dialect Identification System Algorithms, Fifth International Conference on Information System Design and Intelligent Applications (INDIA 2018), Mauritius 20th-23rd, July 2018, Springer, pp.79-88, Received BEST PAPER AWARD
20. B. R. Raghunath and B. Annappa, Dynamic Resource Allocation Using Fuzzy Prediction System, 2018 3rd International Conference for Convergence in Technology (I2CT), Pune, 06th -08th April 2018, pp. 1-6, doi: 10.1109/I2CT.2018.8529674
21. Manjunatha, Annappa B, Real time Big data analytics in smart city applications, IEEE International Conference on Communication, Computing and Internet of Things, 2018, Chennai, 15th - 17th February 2018
22. Deshmukh Shilpa S, Annappa B., Prediction of Crime Hot spot using Spatio-temporal Ordinary Kriging, International Conference on Integrated Intelligent Computing, Communication & Security (ICIIC-2018), 24th and 25th of January 2018, SJB Institute of Technology, Bengaluru
23. Thomas L., Manoj Kumar M.V., Annappa B., Arun S., Mubin A., Prediction of Gallstone Disease Progression Using Modified Cascade Neural Network, First International Conference on Smart

System, Innovations and Computing, Smart Innovation, Systems and Technologies, vol 79. Springer, Singapore, January 2018, [https://doi.org/10.1007/978-981-10-5828-8\\_69](https://doi.org/10.1007/978-981-10-5828-8_69)

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25. Himanshu Yadav, Annappa B, Adaptive GPU Resource Scheduling on Virtualized Servers in Cloud Gaming, 2017 Conference on Information and Communication Technology (CICT'17), 3rd-5th November, 2017, ABV-Indian Institute of Information Technology and Management, Gwalior
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41. Sumith N, Annappa B and Swapan Bhattacharya, RnSIR: A new model of information spread in online social networks, 2016 IEEE Region 10 Conference (TENCON), Singapore, Nov, 2016, pp.2224 – 2227, Scopus, 10.1109/TENCON.2016.7848423
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  73. Rakesh S, Ajitkumar A Kaller, Shakshari B C and Annappa B, A Novel Algorithm for Watermarking and Image Encryption, International Conference on Information Technology Convergence and Services (ITCS 2012), Bangalore, 3rd -4th January, 2012, pp. 347-356
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83. Parag Bafna, Annappa B, Optimization of prefetching in peer-to-peer video on demand systems, The Third International conference on Networks & Communications (NeCoM-2011), Springer, Communications in Computer and Information Science Series(CCIS), Chennai, 5th-7th July 2011,pp.100-106
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90. B. Annappa, P Jiju, K Chandrasekaran, K C Shet, Petri net based verification of cooperative work flow model, International conference on Networked Digital Technologies –NDT'09, VSB Technical University Czech Republic, 28th-31st July 2009, pp. 82-87, 10.1109/NDT.2009.5272122
91. Annappa, G Prameela Rani, A secure and scalable framework for group communication, International Conference on Autonomic Computing (ADCOM -2006), National Institute Of Technology, Karnataka, Surathkal, 20th-23rd December 2006, IEEEExplore pp.199-203, 10.1109/ADCOM.2006.4289883
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93. Sandeep Kumar Singh and Annappa, Community Authorization Services with Authorization-Pull Support: A Design View , International e-Conference on Computer Science 2005 (IeCCS 2005) Athens, Greece, 19th -31st May 2005, <http://www.ieccs.net/>
94. Annappa, Vikas Pachisia, Analytical Analysis of IEEE 802.11 MAC, International Conference on Wireless Networking & Mobile Computing, Madras, 28th – 30th December 2005
95. S Sattanathan, Vikas, K Chandrasekar Shet, Annappa, A performance analysis of Fast Ethernet and Paramnet in Parallel Environment, International Conference on Computer, Controls and Communication, Chennai, 21st –22nd August, 2004
96. S.Sattanathan, K.C.Shet, and Annappa, Performance Analysis of Rivest Cipher 5 Algorithm, International Conference on Knowledge Economy and development of Science, Technology, Beijing, China, 17th -20th September 2004
97. K. T. Oommen Tharakan, A N Chandorkar, SSSP Rao, Annappa, K Chandrasekaran, Development of a Genetic Algorithm Technique for VLSI Testing, International Conference on Advanced Computing, PSG College of Technology, Coimbatore, 17th –20th December, 2003
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#### **NATIONAL CONFERENCES :**

99. Ramesh Kumar, Annappa, Adaptive Push-pull algorithm for co-operative web caching, National Conference on Computing and Applications NACCA'06 at National Engineering College, Kovilpatti, 24th February, 2006
100. M Pradeep, Annappa, Design of a CIM/WBEM based provider for Multiple Computer System, National Conference on Computing and Applications NACCA'06 at National Engineering College, Kovilpatti, 24th February, 2006
101. Shekhar Poojary, Annappa, Graph theoretic approach for finding optimal regions and boundaries in noisy color images, National Conference on Computing and Applications NACCA'06 at National Engineering College, Kovilpatti, 24th February, 2006
102. G Hemalatha, Annappa, Quantifying the confidence level of Tcpdump – A functional correctness approach, National Conference on Ubiquitous Computing (NCUC -2006) , NMAM Institute Of Technology , Nitte, Karnataka, 23rd to 24th Feb 2006

- 103.G Prameela Rani, Annappa, A secure communication framework for large and dynamic groups, National Conference on Ubiquitous Computing (NCUC -2006), NMAM Institute Of Technology, Nitte, Karnataka, 23rd to 24th Feb 2006
- 104.S Sattanathan, Shivakumar S M, K Chandrasekar Shet, Annappa, Improvement of Huffman coding using burrows wheeler Transform in Text Compression, ISN-2004, National Conference on Intelligent Systems and Networks, Haryana Engineering College, Haryana, 27th-28th February, 2004
- 105.S Sattanathan, K Chandrasekar Shet, Annappa, Intrusion Detection in Wireless Ad-Hoc Networks, National Conference on Wireless Networks Sri Venkateswara College of Engineering, Sriperumbudur, 27th-28th February, 2004
- 106.S Sattanathan, K Chandrasekar Shet, Annappa, A better approach for Intrusion Detection System using Mobile Agents, NCDC-2004 National Conference on Distributed Computing, NMAMIT, Nitte, 04th-06th March, 2004
- 107.S Sattanathan, K Chandrasekar Shet, Annappa, Performance verification of Diffie-Hellman Key Exchange Algorithm, National Conference on Mobile Computing and Networking MobiComNet-2004, Vellore Institute of Technology, Vellore, 30th September-02nd October, 2004
108. Annappa, Raghukrishna Hegde, Implementation of VPN using IPSEC protocol, Asia Pacific Conference on Parallel and Distributed Computing Technologies-ObComAPC-2004, Vellore Institute of Technology, Vellore, 13th -15th December, 2004
109. Sandeep Kumar Singh, Annappa, A modified framework for GRID authorization, Asia Pacific Conference on Parallel and Distributed Computing Technologies-ObComAPC-2004 at Vellore Institute of Technology, Vellore, 13th -15th December, 2004
110. K C Shet, Annappa, Vikas P, Comparison of DSDV and DSR Routing Algorithms on WLAN, Asia Pacific Conference on Parallel and Distributed Computing Technologies-ObComAPC-2004 at Vellore Institute of Technology, Vellore, 13th -15th December, 2004
111. Santhosh D, Annappa, Secure Key Transmission Using Evolutionary Computing Algorithm, Asia Pacific Conference on Parallel and Distributed Computing Technologies-ObComAPC-2004 at Vellore Institute of Technology, Vellore, 13th -15th December, 2004
112. Annappa, K Chandrasekaran, Genetic algorithm approach for VLSI Testing, National Conference on VLSI Design and Testing, PSG College of Technology, Coimbatore, 22nd -23rd March, 2003.

## **R & D PROJECTS**

- Co-coordinator for ISRO-RESPOND sponsored R&D project “Customized reconfigurable platform for Image/Video compression based on deep learning algorithms for hyperspectral Image”, sanctioned with the financial outlay of ₹29 lakhs, ongoing 2021-2023.
- Co-coordinator for SERB-DST sponsored R&D project on “Characterization and Identification of Dialects in the Kannada Language”, completed project with the financial outlay of ₹35 lakhs.
- Coordinator for MHRD sponsored R&D project on “Design and evaluation of an object oriented verification approach for Distributed Systems”, completed the project which had financial outlay of ₹12 lakhs.
- Co-cordinator for VSSC-ISRO-RESPOND sponsored R&D project on “Parallel Genetic Algorithm in VLSI Testing”, completed the project which had financial outlay of ₹4.9 lakhs.

## **BOOK/BOOK CHAPTERS:**

1. B. S. Prashanth, M. V. Manoj Kumar, Likewin Thomas, M. A. Ajay Kumar, Dinghao Wu, B. Annappa, Anirudh Hebbar, Y. V. Srinivasa Murthy, Deep Learning for COVID-19, in the book titled Understanding COVID-19: The Role of Computational Intelligence, part of the book series: Studies in Computational Intelligence, vol 963, pp.531-569, Springer, Cham.(2022) First Online: 28 July 2021, [https://doi.org/10.1007/978-3-030-74761-9\\_23](https://doi.org/10.1007/978-3-030-74761-9_23)
2. B. Annappa, M.V. Manoj Kumar, and Likewin Thomas, Foundations of healthcare informatics; Demystifying Big Data, Machine Learning, and Deep Learning for Healthcare Analytics, June 2021, Elsevier Academic Press, pp.3-15
3. Shubham Dodia, Annappa B, Machine Learning based Detection and Classification of Lung Cancer, in Computational Intelligence in Cancer Diagnosis: Progress and Challenges, 2021
4. Hari Krishnan NB, Vinayakumar R, Soman KP, Annappa B, and Mamoun Alazab, Deep learning architecture for big data analytics in detecting intrusions and malicious URL; Big Data Recommender Systems - Volume 1: Algorithms, Architectures, Big Data, Security and Trust, July 2019, pp.303-336, IET, [digital-library.theiet.org/content/books/10.1049/pbpc035f\\_ch14](https://digital-library.theiet.org/content/books/10.1049/pbpc035f_ch14)
5. Likewin Thomas, Manoj Kumar M. V. and Annappa B., Clinical Decision Support System for Early Disease Detection and Management: Statistics-Based Early Disease Detection, Source Title: Pre-Screening Systems for Early Disease Prediction, Detection, and Prevention, editors : Thierry Edoh (Technical University of Munich, Germany), Pravin Pawat (Philips Research, India) and Sagar Mohammad (Philips Research, India), IGI Global, 2019, pp.108-155, 10.4018/978-1-5225-7131-5.ch005
6. Sumith N., Annappa B., Bhattacharya S., A Holistic Approach to Influence Maximization, In: Banati H., Bhattacharyya S., Mani A., Köppen M. (eds), Hybrid Intelligence for Social Networks, 11 September 2017, Springer, Cham, pp.129-160, [https://doi.org/10.1007/978-3-319-65139-2\\_6](https://doi.org/10.1007/978-3-319-65139-2_6)
7. Walter J. Savitch, Kenrick Mock, Annappa, Absolute C++, International 5th ed., Pearson, London, 2013, ISBN-13 9780273760177, 9780273769323, 9780273769354

## **INVITED / KEYNOTE TALKS DELIVERED:**

1. Invited lecture on “Knowledge Enrichment and Professional Growth through IEEE Membership” at NMAMIT Nitte as part of IEEE celebration on 06th October 2022
2. Invited lecture on “Benchmarking, Measuring Innovation and Entrepreneurship Ecosystem in Higher Education Institute and Impact creation”, on August 16th, 2022 organised by Ministry of Education’s Innovation Cell, Govt. of India, during MoEs IIC Regional Meet held at REVA University, Bangalore
3. Invited lecture on “DIGITAL TECHNOLOGIES FOR OLDER PERSONS AND HEALTHY AGEING”, on May 24, 2022 organised by The Institution of Engineers (India) Mangaluru Local Centre on the occasion of WORLD TELECOMMUNICATION AND INFORMATION SOCIETY DAY - 2022
4. Invited lectures on “Procedural Design Methodology” (on 17-03-2022) during the VGST sponsored 4-Days FDP on “Software Engineering & Testing Methodologies” from: 16th to 19th March 2022, Organized by Department of Computer Science and Engineering, Hirasugar Institute of Technology. Belgaum
5. Invited lectures on “Research Avenues in Machine Learning and AI for Societal Issues” (on 14-03-2022) during the AICTE Sponsored Faculty Development Programme on “Research Avenues in Machine Learning and AI for Societal Issues” from 14th -18th March, 2022 organized by NIT Silchar

6. Keynote address on “Exploring Big Data Analytics and its Applications” ( on December 6, 2021) during the Online National Workshop on Big Data Analytics (BDA – 2021) conducted during Dec. 6-7, 2021, at Sardar Vallabhbhai National Institute of Technology Surat
7. Invited lectures on “Big Data and Its Applications” (on 24-11-2021 and 25-11-2021) during the UGC sponsored refresher course in ICT from 17th to 30th November 2021 conducted by Utkal University
8. Invited lectures on “Applications of IOT Current Trends and Future Scope” (on 10-11-2021) during the five-Days AICTE Sponsored ATAL academy advanced Faculty Development Program on Internet of Things and Human-Computer Interaction conducted from 08th to 12th November, 2021 at NIT Goa, Dept. of CSE.
9. Invited lectures on “The Future of Digital Health with Federated Learning” (on 29-10-2021) during the five-Days AICTE Sponsored ATAL academy elementary Faculty Development Program on Internet of Things and Human-Computer Interaction conducted from 25th to 29th October, 2021 at NIT Goa, Dept. of CSE.
10. Invited Lecture on "Edge computing " on 09-10-2021 at the National Webinar on “Edge Computing and Emerging Security Technologies” organized by the Department of Computer Science, Berhampur University.
11. Invited lecture on “IEEE student branch and IEEE Computer Society student branch activities and ways to harness the benefits of Membership for Knowledge Enrichment” during inauguration of IEEE Computer Society student branch, IIIT Dharwad on 24th Sep 2021.
12. Keynote address "Emerging Paradigms in Artificial Intelligence and Data Science" on 16-8-2021 at the faculty development program on “Emerging Paradigms in Artificial Intelligence and Data Science” conducted from 16th to 20th August, 2021 at Vishwakarma Institute Of Technology, Pune, Department Of Information Technology And Artificial Intelligence & Data Science.
13. Invited webinar on “Applications of linear algebra”, to the BSc. Software Engineering students of University of Mascareignes, Mauritius on 29th June 2022
14. Invited webinar on “Harnessing the benefits of IEEE Membership through IEEE Student Branch” during the Inaugural address of Inauguration of IEEE SVCE COMSOC Chapter of IEEE SVCE Student Branch, Sri Venkateswara College of Engineering, Tirupati on 28th June 2021.
15. Invited lecture on “Machine Learning Research Impact: Past, Present and Future” during the 5 Days Faculty Development Program on Recent Trends in Application of Artificial Intelligence & Machine Learning in Engineering held at NMAMIT, Nitte on 26th March 2021.
16. Invited webinar on “Roadmap for the IEEE Student Branch to harness the local and global benefits of IEEE Membership” during the Inaugural address of Inauguration of Srinivas University IEEE Student Branch, on 10th October 2020.
17. Invited webinar on “Student Internship opportunities for students in Academia & Industry in India and Abroad” for the students of Beary's Institute of Technology Mangalore on 26th September 2020.
18. Invited webinar on “How to build your team and successfully running the Conference” during IEEE Region 10 sponsored Conference Organizers Education Workshop (COEW) organized by IEEE Bangalore Section and IEEE Mangalore Sub-Section on 17th October 2020.
19. Invited technical talk on “Edge Computing” held on 15th February 2020 at Department of Computer Science & Engineering, Alva’s Institute of Engineering & Technology, Moodbidri.
20. Invited technical talk on “Technology trends of the new decade” held on 25th January 2020 at Knowledge Labs, Mangalore.
21. Invited technical talk on “Digital Transformation: A New Industrial Revolution” at Manipal Institute of Technology, Manipal organised by The Institution of Engineers (I), Mangalore Local Centre on 25th September 2018 on the occasion of the 51st Engineers’ Day Celebrations.
22. Keynote address on “Machine Learning Impact: Past, Present and Future” at the International Conference, 5th International Conference on Information System Design And Intelligent Applications-INDIA 2018, held at Université des Mascareignes during 19th-21st July 2018.

23. Keynote address on “Machine learning and Big Data Analytics: Past, Present, and Future” at the International Conference on “Cognitive Science and Artificial Intelligence” organized by Sree Vidyanikethan Engineering College (Autonomous), Tirupathi on 05<sup>th</sup> January 2018.
24. Keynote address on “Advances in Data Science and its implications on Business” at the National Conference on “Innovations and Implications in IT, Management, Social Science and Education” organized by Srinivas University, Mangalore on 23<sup>rd</sup> December 2017.
25. Invited talks on “Data Science: Past, Present and Future” and “Data Science Challenges and Opportunities” during the Research Conclave held at SECAB Institute of Engineering & Technology, Vijayapur, Karnataka on 11<sup>th</sup> March 2017.
26. Invited talk on “Real time Analytics” and “Predictive Analytics” during Faculty Development Programme on “Big Data Analytics Tools and Techniques” at National Institute of Technology, Calicut during 27<sup>th</sup> February to 4<sup>th</sup> March 2017.
27. Plenary talk on “Big Data for Smart City” during the International Conference on Smart Cities at Rajiv Gandhi Memorial Institute of Technology, Nandyal, Andra Pradesh, during 15<sup>th</sup> - 17<sup>th</sup> December 2016.
28. Invited talk on “Big Data : Past, present and Future” during the National Conference on Recent Innovations in Data Science during October 5<sup>th</sup> - 6<sup>th</sup> organised by Department of Computer Science, College of Engineering Vadakara in collaboration with Information Technology department, Kannur university.
29. Invited talk on “Big Data : Techniques and Challenges” at Vachana Pitamaha Dr. P. G. Halakatti College of Engineering and Technology, Bijapur, Karnataka, during the All India seminar on “Big DATA” on 18<sup>th</sup> – 19<sup>th</sup> March 2016.
30. Invited talk on “Big Data : Research Challenges and Opportunities” at Annasaheb Dange College of Engineering & Technology, Ashta, Sangli as part of the Faculty Development Programme on “Big DATA” on December 26<sup>th</sup> 2015.
31. Plenary talk on “Big Data : Challenges and Opportunities” at the Global Congress on Computing and Media Technologies (GCMT '15) held at Chennai, India, during November 25<sup>th</sup>-27<sup>th</sup>, 2015 by Sathyabhama University Chennai, in association with Asia Pacific University of Technology & Innovation, Malaysia.
32. Invited talk on “NBA Accreditation : SAR Preparation” at NIT Silchar on 10<sup>th</sup> October 2015.
33. Invited talk on “Cloud Computing” at NIT Silchar on 11<sup>th</sup> October 2015.
34. Invited talk on “Cloud Computing” at Gujrat Technological University as part of the Research week during April 2015.
35. Invited talk on “New Challenges of research in Computer Science” during 2015 IEEE International Advance Computing Conference at B.M.S. College of Engineering, Bangalore during June 12<sup>th</sup>-13<sup>th</sup> , 2015.
36. Invited talk on “Big Data” at Gujrat Technological University as part of the Research week during April 2014.
37. Invited talk on “Big Data Applications” during the National level seminar on “Parallel and Distributed Processing Techniques & Applications held at St. Philomena College Puttur, Mangalore, on 14<sup>th</sup> February 2014.
38. Special Lecture on Specification Systems during the STTP on Internet Technologies and E-commerce at NITK-Surathkal during dec 2004 at NITK, Surathkal.
39. Special lecture on E-Learning for the participants of AICTE-ISTE sponsored short term training programme on Digital Library