Journey at SVNIT, Surat

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Other Recognition
MHRD Inflibnet Vidwan
Web of Science ResearcherID
Scopus
Publons
ORCiD
Google Scholar
(T-7819-2019)
Semantic Scholar

Qualification

- Ph. D., SVNIT
- M. Tech. (R) CO, SVNIT
- B. E. CO, SVRCET (SVNIT)

Research Interests

- Big Data Analytics, Data Mining (DM), Imbalanced Data Mining, Machine Learning
- Information Extraction, Recommendation System, Influence Identification
- Social DM, Legal DM, Scholarly Platform DM, Environmental DM
- Computer Organization, Database Management System
- Unmanned Aerial Vehicle (DRONE) Applications

Research Project

1. Co-CI in "Capacity Building for Human Resource Development in Unmanned Aircraft System (Drone and Related Technology)", HRD Division, MeitY, to be implemented jointly by the Programme Management Unit (PMU) and identified implementing agencies from 11th July 2022, 5 Years Duration.

2. PI in "Drone Multi Modal Video & Quantitative Data Warehouse Management for Precision Farming", Ministry of Electronics and Information Technology (MeitY), Government of India (GoI) from 8th Jun 2023, 1 Year Duration, 2.5 Lakhs. (POC01-024)

International Journal Reviewer

1. IEEE Transactions on Emerging Topics in Computational Intelligence

2. International Journal of Soft Computing (SOCO), Springer, EISSN: 1433-7479, Print ISSN 1432-7643

3. International Journal of Data Technologies and Applications, Emerald Publishing Limited, ISSN: 2514-9288

4. International Journal of Innovative Teaching and Learning in Higher Education (IJITLHE), IGI Global, ISSN: 2644-1624

5. International Journal of Intelligent & Fuzzy Systems, IOS Press, ISSN: 1064-1246

6. IEEE *Access* (Open Access)

7. Advances and Applications in Bioinformatics and Chemistry, Dove Medical Press, ISSN: 1178-6949 (Open Access)

8. International Journal of Big Data

9. Wireless Communications and Mobile Computing, Hindawi
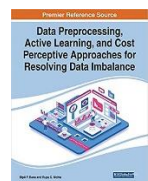
Conference Paper Reviewer

1. First International Conference on Computational Intelligence, Networks and Security (ICCINS), (Hybrid Mode), 22-23 December 2023, Lakireddy Bali Reddy College of Engineering, Mylavaram, Andhra Pradesh, India (Reviewer)

2. 7th IEEE International Conference on Recent Advances and Innovations in Engineering (7th IEEE ICRAIE 2022), National Institute of Technology Karnataka, Surathkal, Mangalore, Karnataka, India, December 1-3, 2022 (TPC Member + Reviewer)

3. International Conference on Sustainable Development Goals & Gender Perspective ICSDGAGP 2021, S. V. National Institute of Technology, Surat, India, October 25-26, 2021 (PC member + Reviewer)

4. International Conference on Sustainable Technology and Advanced Computing in Electrical Engineering, (ICSTACE'21), SV National Institute of Technology, India, November 11-12, 2021 (PC member + Reviewer)

5. International Conference on Information, Communication & Cybersecurity (ICI2C), National School of Applied Sciences ENSAK, Khouribga, Morocco, November 10-11, 2021 (PC member + Reviewer)

6. 9th International Conference on Pattern Recognition and Machine Intelligence (PReMI'21), Indian Statistical Institute, Kolkata, India, December 15-18, 2021 (Reviewer)

7. International Conference on Sustainable Computing and Intelligent Systems (ICSCIS'21), J. K. Lakshmipat University, Jaipur, India, February 5-6, 2021 (PC Member+Reviewer)

8. ICSAC 2021: International Conference on Sustainable Advanced Computing, CHRIST (Deemed to be University), Bangalore, India, March 05-06, 2021 (Reviewer)

9. International Conference on Computational Science and its Applications (ICCSA) 2019 (Reviewer)

10. International Conference on Computational Intelligence, Security & IoT (ICCISIoT) 2019, National Institute of Technology Agartala, Agartala, India, December 13-14, 2019 (Reviewer)

11. ICCIIoT 2018 International Conference on Computational Intelligence & Internet of Things (ICCISIoT) 2018, Department of Electronics and Communication Engineering, North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Itanagar, Arunachal Pradesh, India, December 2018 (PC Member+Reviewer)

12. International Conference on Computational Intelligence & Internet of Things (ICCIoT) 2018, Department of Electronics and Communication Engineering, North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Itanagar, Arunachal Pradesh, India, December 2018 (PC Member+Reviewer)

13. International Conference on Intelligent Computing and Communication (ICICC) 2017 (Reviewer)

14. International Conference on Global Trends in Signal Processing, Information Computing and Communication (ICSPICC) 2016 (PC Member+Reviewer)

15. First International Conference on Data Science Analytics and Applications (DaSAA) 2016 (Reviewer)

16. International Conference on Intelligent Systems and Signal Processing (ISSP) 2013 (Reviewer)

Publication

Books

1. Rana, Dipti P., and Rupa G. Mehta, eds. Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance. Hershey, PA: IGI Global, 2021. https://www.igi-global.com/book/data-preprocessing-active-learning-cost/262922 (http://doi:10.4018/978-1-7998-7371-6)

2. Temporal Association Rule Based Models for Weather Prediction: Concept and Stepwise Model Preparation, Dipti Rana, N. Mistry, M. Raghuwanshi, LAP LAMBERT Academic Publishing, Germany, ISBN-10: 620207616X, ISBN-13: 978-6202076166, Dec 2017.

SCI Journal - 2019 onwards

1. M J. K. Kumar, Dipti Rana, "HARUIM: High Average Recent Utility Itemset Mining", International Journal of Data Mining Modeling and Management, Inderscience Publisher, 2023. DOI:10.1504/IJDMMM.2024.10055782. (Web of Science, Scopus) (0.5) (**in press)**

2. Agarwal Isha, Rana Dipti, "Analysis of Contextual Features' Granularity for Fake News Detection", Multimedia Tools and Applications, Springer, 15 November 2023. https://doi.org/10.1007/s11042-023-17465-5 (SCIE, Scopus) (3.6)

3. Mitali Desai, Rupa Mehta, Dipti Rana, "An Exploratory Study of Scholarly Platforms and Features to Help Emerging Scholars Gain Visibility in the Scholars' Community", Journal of Scientometric Research, Phcog.Net 2023, 12, 2, 480-489, September 2023, . DOI: 10.5530/jscires.12.2.044 (Web of Science, ESCI, Scopus) (0.8)

4. Kumar, M.J.K., Rana, D., "HAUOPM: High Average Utility Occupancy Pattern Mining", Arabian Journal for Science and Engineering, Springer, June 2023. https://doi.org/10.1007/s13369-023-07971-x (SCIE, Scopus) (2.9)

5. Pranita Y. Mahajan, Dipti P. Rana, "Text mining approach for the prediction of disease status from discharge summaries using CCBE and NEROA-CNN", Expert Systems with Applications, Science Direct, Vol. 227, 4 May 2023. https://doi.org/10.1016/j.eswa.2023.120310. https://doi.org/10.1016/j.eswa.2023.120310. (Web of Science, SCIE, Scopus) (8.665)

6. Anjali S. More, Dipti P. Rana, "AI Federated Learning based Improvised Random Forest Classifier with Error Reduction Mechanism for Skewed Datasets", International Journal of Pervasive Computing and Communications (IJPCC), Emerald, Vol. ahead-of-print, Aug. 2022. https://doi.org/10.1108/IJPCC-02-2022-0034 (ESCI, Scopus) (0.55)

7. Agarwal Isha, Rana Dipti, Jariwala Aemie and Bondre Sahil, "Cluster-based Sampling for Fake News on Healthcare during COVID-19 Infodemic", Recent Advances in Electrical & Electronic Engineering, Bentham Science, Vol. 15, Aug. 2022. https://dx.doi.org/10.2174/2352096515666220817104354 (ESCI, Scopus) (0.6)

8. Isha Agarwal, Dipti Rana, Aemie Jariwala, Sahil Bondre, "A Novel Stance based Sampling for Imbalanced Data", International Journal of Advanced Computer Science and Applications

(IJACSA), Vol. 13, No. 1, Jan 2022. (Open Access) DOI: 10.14569/IJACSA.2022.0130157 (Web of Science, Scopus) [Paid]

9. M. Desai, R. G. Mehta and D. P. Rana, "Anatomising the Impact of ResearchGate Followers and Followings on Influence Identification", Journal of Information Science, SAGE Publications, July 2022. Available at DOI: 10.1177/01655515221100716 (SCIE, Scopus) (2.4)

10. M. Desai, R. G. Mehta and D. P. Rana, "ScholarRec: A Scholars' Recommender System that Accumulates Scholastic Influence and Social Collaborations to Identify and Rank Influential Scholars in Academic Social Networks", International Journal of Data Science and Analytics, Springer, July 2022. Available at DOI: 10.1007/s41060-022-00345-w (ESCI, Scopus) (0.51)

11. Agarwal, I. Y., Rana, D. P., Shaikh, M. and S. Poudel, "Spatio-Temporal Approach for Classification of COVID-19 Pandemic Fake News". Social Networks Analysis and Mining, Vol. 12, pp. 68(1-9), June 2022. DOI: https://doi.org/10.1007/s13278-022-00887-8 (ESCI, Scopus) (0.65)

12. Dhanani, Jenish, Mehta, Rupa, and Rana, Dipti, "Effective and Scalable Legal Judgment Recommendation using Pre-Learned Word Embedding", Complex & Intelligent Systems, Vol. 8, pp. 3199–3213, Feb. 2022. https://doi.org/10.1007/s40747-022-00673-1 (SCIE, Scopus) (1.13)

13. Anjali S. More and Dipti P. Rana, "Novel Oversampling Algorithm for Handling Imbalanced Data Classification", International Journal of Advanced Computer Science and Applications (IJACSA), Vol.13 (8), August 2022. DOI: 10.14569/IJACSA.2022.0130856 (Web of Science, Scopus) [Paid]

14. Tidke, B., Mehta, R., Rana, D., Mittal, D. and Suthar, P. "A Social Network based Approach to Identify and Rank Influential Nodes for Smart City", Kybernetes, Vol. 50(2), pp. 568-587, March 2021. DOI: https://doi.org/10.1108/K-09-2019-0637 (SCI, Scopus) (0.35)

15. Dhanani, Jenish, Mehta, Rupa, and Rana, Dipti. 'Legal Document Recommendation System: A Cluster Based Pairwise Similarity Computation', Journal of Intelligent & Fuzzy Systems, pp. 5497 – 5509, 1 Jan 2021. DOI: 10.3233/JIFS-189871. (SCIE, Scopus) (0.32)

Scopus Journal Publication - 2014 onwards

1. M J. K. Kumar, Dipti Rana, "HARUIM: High Average Recent Utility Itemset Mining", International Journal of Data Mining Modeling and Management, Inderscience Publisher, 2023. DOI:10.1504/IJDMMM.2024.10055782. (in press)

2. Mitali Desai, Rupa Mehta, Dipti Rana, "Analyzing the Impact of Social Collaborations on Influence Identification in Scientific Literature Analytic: An Analysis on ResearchGate and Academia", International Journal of Information Science and Management (IJISM), Regional Information Center for Science and Technology, vol. 21(4), pp. 23-38, 2023. DOI: 10.22034/ijism.2023.1977713.0

3. Mitali Desai, Rupa Mehta, Dipti Rana, "An Exploratory Study of Scholarly Platforms and Features to Help Emerging Scholars Gain Visibility in the Scholars' Community", Journal of Scientometric Research, 2023, 12, 2, 480-489, September 2023, . DOI: 10.5530/jscires.12.2.044

4. Kenny Kumar, M.J., Rana, D. "RSPHUIM: Recent Short Period High Utility Itemset Mining", SN COMPUTER SCIENCE, Vol. 4, Article. 485, June 2023. https://doi.org/10.1007/s42979-023-01967-y

5. Pranita Mahajan and Dipti Rana, "Feature Optimization in CNN Using MROA for Disease Classification", Intelligent Decision Technologies, IOS Press, Vol. 17 (2), pp. 301 – 315, 1 Jan 2023. DOI: 10.3233/IDT-220097

6. Dhanani, Jenish, Mehta, Rupa, and Rana, Dipti, "DSPWE: distributed sentiment polarized word embedding for voluminous textual data", Journal of Ambient Intelligence and Humanized Computing (JAIHC), Springer, 2023. https://doi.org/10.1007/s12652-023-04611-y

7. M. Desai, R. G. Mehta and D. P. Rana, "Contextual analysis of scholarly communications to identify the source of disinformation on digital scholarly platforms", Kybernetes, Vol. ahead-of-print No. ahead-of-print, Jan 2023. https://doi.org/10.1108/K-07-2022-0998

8. I. Y. Agarwal, D. P. Rana, "An Improved Fake News Detection Model by Applying a Recursive Feature Elimination Approach for Credibility Assessment and Uncertainty", Journal of Uncertain Systems, Vol. 16 (01), Article No. 2242008, Jan 2023. DOI: https://doi.org/10.1142/S1752890922420089

9. Anjali S. More and Dipti P. Rana, "Novel Oversampling Algorithm for Handling Imbalanced Data Classification", International Journal of Advanced Computer Science and Applications (IJACSA), Vol.13 (8), August 2022. DOI: 10.14569/IJACSA.2022.0130856

10. Anjali S. More and Dipti P. Rana, "AI Federated Learning based Improvised Random Forest Classifier with Error Reduction Mechanism for Skewed Datasets", International Journal of Pervasive Computing and Communications (IJPCC), Vol. ahead-of-print No. ahead-of-print. DOI: https://doi.org/10.1108/IJPCC-02-2022-0034 Emerald, Aug. 2022.

11. M. Desai, R. G. Mehta and D. P. Rana, "Anatomising the Impact of ResearchGate Followers and Followings on Influence Identification", Journal of Information Science, SAGE Publications, July 2022. Available at DOI: 10.1177/01655515221100716

12. M. Desai, R. G. Mehta and D. P. Rana, "ScholarRec: A Scholars' Recommender System that Accumulates Scholastic Influence and Social Collaborations to Identify and Rank Influential Scholars in Academic Social Networks", International Journal of Data Science and Analytics, Springer, July 2022. Available at DOI: 10.1007/s41060-022-00345-w

13. Anjali S. More, Dipti P. Rana, "Performance enrichment through parameter tuning of random forest classification for imbalanced data applications", Materials Today: Proceedings, pp. 3585-3593, 2022. DOI: 10.1016/j.matpr.2021.12.020

14. Dhanani, Jenish, Mehta, Rupa, and Rana, Dipti, "Effective and Scalable Legal Judgment Recommendation using Pre-Learned Word Embedding", Complex & Intelligent Systems, Vol. 8, pp. 3199–3213, Feb. 2022. DOI: https://doi.org/10.1007/s40747-022-00673-1

15. Isha Agarwal, Dipti Rana, Aemie Jariwala, Sahil Bondre, "A Novel Stance based Sampling for Imbalanced Data", International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 13, No. 1, Jan 2022. (Open Access) DOI: 10.14569/IJACSA.2022.0130157

16. Dhanani, J., Mehta, R. and Rana, D. P., "Legal document recommendation system: a dictionary based approach", International Journal of Web Information Systems, Vol. 17 No. 3, pp. 187-203, 2021. DOI: https://doi.org/10.1108/IJWIS-02-2021-0015.

17. Dhanani, Jenish, Rupa Mehta, and Dipti Rana. "Sentiment Weighted Word Embedding for Big Text Data," International Journal of Web-Based Learning and Teaching Technologies (IJWLTT), IGI Global, Vol. 16(6), 1-17, Dec. 2021. DOI: http://doi.org/10.4018/IJWLTT.20211101.oa2

18. Tidke, B., Mehta, R., Rana, D., Mittal, D. and Suthar, P. "A Social Network based Approach to Identify and Rank Influential Nodes for Smart City", Kybernetes, Vol. 50(2), pp. 568-587, March 2021. DOI: https://doi.org/10.1108/K-09-2019-0637

19. Dhanani, Jenish, Mehta, Rupa, and Rana, Dipti. 'Legal Document Recommendation System: A Cluster Based Pairwise Similarity Computation', Journal of Intelligent & Fuzzy Systems, pp. 5497 – 5509, 1 Jan 2021. DOI: 10.3233/JIFS-189871.

20. Agarwal I., Rana D. P., "Credibility of misinformation and the science of sentiments", Journal of Advanced Research in Dynamical and Control Systems, Vol. 12 (7), pp. 1738-1745, 2020. DOI: 10.5373/JARDCS/V12SP7/20202283

21. Tidke, B., Mehta, R., Rana, D., & Jangir H. (2020). "Topic Sensitive User Clustering using Sentiment Score and Similarity Measures: Big Data and Social Network" International Journal of Web-Based Learning and Teaching Technologies (IJWLTT), IGI Global, Vol, 15 (2), 2020.

22. Divyani Mittal, Pooja Suthar, Madhuri Patil, P.G.S. Pranaya, Dipti P. Rana, Bharat Tidke, Social Network Influencer Rank Recommender Using Diverse Features from Topical Graph, Procedia Computer Science, Volume 167, pp. 1861-1871, ISSN 1877-0509, 2020. (conference-paper, DOI: 10.1016/j.procs.2020.03.205, EID: 2-s2.0-85084503546). https://doi.org/10.1016/j.procs.2020.03.205.

23. Anjali S. More, Dipti P. Rana, "An Experimental Assessment of Random Forest Classification Performance Improvisation with Sampling and Stage Wise Success Rate Calculation", Procedia Computer Science, Volume 167, pp. 1711-1721, 2020. DOI: http://www.sciencedirect.com/science/article/pii/S1877050920308474, DOI: https://doi.org/10.1016/j.procs.2020.03.381.

24. Mitali Desai, Rupa G. Mehta, and Dipti P. Rana, "An Empirical Analysis to Identify the Effect of Indexing on Influence Detection using Graph Databases", International Journal of Innovative Technology and Exploring Engineering (IJITEE), Blue Eyes Intelligence Engineering and Sciences Publication, Vol. 8, No. 9S, ISSN: 2278-3075 (Online), pp. 414-421, July 2019. DOI: 10.35940/ijitee.I1066.0789S19

25. D. P. Rana, P. Chaudhari, N. J. Mistry, M. M. Raghuwanshi, "Novel Usage of Gujarati Tithi in Weather Analysis of Surat, India", International Journal of Computer Science and Information Security, Vol. 13, No. 6, pp. 34-37, June 2015.

26. P. Chaudhari, D. P. Rana, R. G. Mehta, N. J. Mistry, M. M. Raghuwanshi, "Discretization of Temporal Data: A Survey", International Journal of Computer Science and Information Security (IJCSIS), ISSN:1947-5500, Vol. 11, No. 2, pp. 1-4, Feb 2014.

Other Publications

27. N S Kapadia, D P Rana, U Parikh, "Weather Forecasting using Satellite Image Processing and Artificial Neural Networks", International Journal of Computer Science and Information Security, (IJCSIS), Vol. 14 (11), pp. 1069, 2016

Book Chapters - 2016 onwards

1. Agarwal, I., Rana, D., Teja, C.S., Sai Daivik, N.N.S., "FNH—A Data Repository for Studying Fake News in Healthcare Domain", In: Mandal, J.K., De, D. (eds) Frontiers of ICT in Healthcare. Lecture Notes in Networks and Systems, vol 519, pp. 39-51, Springer, Singapore, April 2023. https://doi.org/10.1007/978-981-19-5191-6_4 (Scopus)

2. Shweta Tikhe, D. P. Rana, "Fine-Tuned Predictive Models for Forecasting Severity Level of COVID-19 Patient Using Epidemiological Data", In: Mandal, J.K., De, D. (eds) Frontiers of ICT in Healthcare. Lecture Notes in Networks and Systems, vol 519, pp. 431-442. Springer, Singapore, April 2023. https://doi.org/10.1007/978-981-19-5191-6_35 (Scopus)

3. D. P. Rana, Charmi Shah, Yamini Kabra, Y., Ummul Daginawala, Pranjal Tibrewal, "Hierarchical Earthquake Prediction Framework", In: Yadav, R.P., Nanda, S.J., Rana, P.S., Lim, MH. (eds) Proceedings of the International Conference on Paradigms of Computing, Communication and Data Sciences. Algorithms for Intelligent Systems. pp. 241-253, Springer, Singapore, Feb 2023. https://doi.org/10.1007/978-981-19-8742-7_20 (Scopus)

4. Navodita Saini and Dipti Rana, "Dictionary Based Gender Identification and Gender Based Sentiment Analysis with Polarized Word2Vec", In: Singh, P.K., Wierzchoń, S.T., Chhabra, J.K., Tanwar, S. (eds) Futuristic Trends in Networks and Computing Technologies. Lecture Notes in Electrical Engineering, vol 936. Springer, Singapore, November 2022. https://doi.org/10.1007/978-981-19-5037-7_54. (Scopus)

5. Mahajan P., Rana D. "Investigating Clinical Named Entity Recognition Approaches for Information Extraction from EMR". 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, 2022. Springer, Cham. https://doi.org/10.1007/978-3-030-76732-7_7 (Scopus)

6. More, Anjali S., and Dipti P. Rana. "Review of Imbalanced Data Classification and Approaches Relating to Real-Time Applications." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 1-22. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch001 (Scopus)

7. Agarwal, Isha Y. and Dipti P. Rana, Devanshi Bhatia, Jay Rathod, Kaneesha J. Gandhi, and Harshit Sodagar. "Detection of Bot Accounts on Social Media Considering Its Imbalanced Nature." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving

Data Imbalance, pp. 162-176. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch009 (Scopus)

8. Agarwal, Isha Y. and Dipti P. Rana, Kshitij R. Suri, Punitkumar Jain, Saumya Awasthi, and Krittika Roy. "Behaviour Anomaly Detection with Similarity-Based Sampling for Imbalanced Data." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 177-194. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch010 (Scopus)

9. Agarwal, Isha Y., and Dipti P. Rana. "Fake News and Imbalanced Data Perspective." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 195-210. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch011 (Scopus)

10. Dhanani, Jenish and Rupa G. Mehta, Dipti P. Rana, Rahul Lad, Amogh Agrawal, Karan Chevli, and Jashwanth Gummula Reddy. "Indian Judgment Categorization for Practicing Similar Judgment Identification." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 232-241. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch013 (Scopus)

11. Mitali Desai, Rupa G. Mehta, and Dipti P. Rana, "An Experimental Analysis to Learn Data Imbalance in Scholarly Data: A Case Study on ResearchGate." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 242-254. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch014 (Scopus)

12. Rana, Dipti P., and Navodita Saini. "Gender-Based Tweet Analysis (GTA)." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 255-267. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch015 (Scopus)

13. Kenny Kumar M.J., Rana D. "High Average Utility Itemset Mining: A Survey" In: Chaki N., Pejas J., Devarakonda N., Rao Kovvur R.M. (eds) Proceedings of International Conference on Computational Intelligence and Data Engineering. Lecture Notes on Data Engineering and Communications Technologies, vol 56. PP. 347-374, Springer, Singapore, 2021. https://doi.org/10.1007/978-981-15-8767-2_30. (Scopus)

14. Mitali Desai, Rupa G. Mehta, and Dipti P. Rana, "RGNet: The Novel Framework to Model Linked ResearchGate Information into Network Using Hierarchical Data Rendering", Advances in Machine Learning and Computational Intelligence, Algorithms for Intelligent Systems,

Springer, Singapore, pp. 37-45, January 2021. https://doi.org/10.1007/978-981-15-5243-4_4. (Scopus)

15. Dholakia R., Randeria R., Dholakia R., Ashar H., Rana D. (2020) Cognitive Demand Forecasting with Novel Features Using Word2Vec and Session of the Day. In: Gunjan V., Zurada J., Raman B., Gangadharan G. (eds) Modern Approaches in Machine Learning and Cognitive Science: A Walkthrough. Studies in Computational Intelligence, vol 885. Springer, Cham DOI: https://doi.org/10.1007/978-3-030-38445-6_5 (Scopus)

16. Dhanani J., Mehta R., Rana D., Tidke B. (2019) Back-Propagated Neural Network on MapReduce Frameworks: A Survey. In: Tiwari S., Trivedi M., Mishra K., Misra A., Kumar K. (eds) Smart Innovations in Communication and Computational Sciences. Advances in Intelligent Systems and Computing, vol 851. Springer, Singapore (DOI: https://doi.org/10.1007/978-981-13-2414-7_35)

17. Parikh Y., Palusa A., Kasthuri S., Mehta R., Rana D. (2018) Efficient Word2Vec Vectors for Sentiment Analysis to Improve Commercial Movie Success. In: Bhattacharyya S., Gandhi T., Sharma K., Dutta P. (eds) Advanced Computational and Communication Paradigms. Lecture Notes in Electrical Engineering, vol 475. Springer, Singapore DOI: https://doi.org/10.1007/978-981-10-8240-5_30 (Scopus)

18. Rana D., Mehta R., Somkunwar P., Mistry N., Raghuwanshi M. (2016) Segregation of Rare Items Association. In: Nagar A., Mohapatra D., Chaki N. (eds) Proceedings of 3rd International Conference on Advanced Computing, Networking and Informatics. Smart Innovation, Systems and Technologies, vol 43. Springer, New Delhi. DOI: https://doi.org/10.1007/978-81-322-2538-6_18 (Scopus)

Conference Publication - 2018 onwards

1. Devanshu Dudhia and Dipti P. Rana, "Sentiment Analysis in Gujarati Language", 6th International Conference on Information Systems and Management Science 2023 (ISMS 2023) Organized by O. P. Jindal University, Raigarh, India, 23 - 24 December 2023. (PRESENTED)

2. Pranita Mahajan and Dipti P. Rana, "Standardization and Context-Specific Named Entity Linking of Electronic Medical Records", 2nd International Conference on Emerging trends and Innovations in ICT-2022 (ICEI-2022) organized by SCTRs, PICT Pune, 10th - 12th March 2022. (PRESENTED)

3. Jyoti Kumari, Dipti P. Rana, "GeoAI-Based Covid-19 Prediction Model",. In: Das, S., Saha, S., Coello Coello, C.A., Bansal, J.C. (eds) Advances in Data-driven Computing and Intelligent Systems. Lecture Notes in Networks and Systems, vol 653, pp. 669–684, Springer, Singapore, June 2023. https://doi.org/10.1007/978-981-99-0981-0_51

4. V. V. Rathod, D. P. Rana and R. G. Mehta, "An Extensive Review of Deep Learning Driven Remote Sensing Image Classification Models," 2022 Third International Conference on Intelligent Computing Instrumentation and Control Technologies (ICICICT), Kannur, India, Oct. 2022, pp. 762-774, doi: 10.1109/ICICICT54557.2022.9917583.

5. Dipti Rana, Charmi Shah, Yamini Kabra, Ummulkiram Daginawala and Pranjal Tibrewal , "Hierarchical Earthquake Prediction Framework ", International Conference on Paradigms of Communication, Computing and Data Sciences (PCCDS 2022), Organized in Virtual Format by Malaviya National Institute of Technology Jaipur, India, July 5-7, 2022. (PRESENTED)

6. Isha Agarwal, Dipti Rana, Ch Surya Teja and Nunna Naga Surya Sai Daivik, "FNH – A Data Repository for Studying Fake News in Healthcare Domain", 7th International Conference on Emerging Applications of Information Technology (EAIT 2022), CSI KOLKATA CHAPTER, Kolkata, West Bengal, March 29 - 31, 2022.

7. Shweta Tikhe and Dipti P. Rana, "Fine-Tuned Predictive Models for Forecasting Severity Level of Covid-19 Patient Using Epidemiological Data", 7th International Conference on Emerging Applications of Information Technology (EAIT 2022), CSI KOLKATA CHAPTER, Kolkata, West Bengal, March 29 - 31, 2022.

8. Navodita Saini and Dipti P. Rana, "Dictionary based Gender Identification and Gender based Sentiment Analysis with Polarized Word2vec", Fourth International Conference on Futuristic Trends in Networks, Computing and Communication Technologies (FTNCT), Nirma University, Ahmedabad, 10-11 Dec. 2021.

9. Dipti P. Rana, Simran Bawkar, Mansi Jain, Swati Bothra and Shailesh Baldaniya, "Image Based Fake Tweet Retrieval (IBFTR)", IEEE International Conference for Emerging Technology (INCET 2020), pp. 1-8, Jun. 2020. doi: 10.1109/INCET49848.2020.9154072. https://ieeexplore.ieee.org/abstract/document/9154072

10. Mathe John Kenny Kumar and Dipti Rana, "High Average Utility Itemset Mining: A Survey", In: Chaki, N., Pejas, J., Devarakonda, N., Rao Kovvur, R.M. (eds) Proceedings of 3rd International Conference on Computational Intelligence & Data Engineering (ICCIDE-2020), Hyderabad,

India, June 12-13 2020, Lecture Notes on Data Engineering and Communications Technologies, vol 56. Springer, Singapore. https://doi.org/10.1007/978-981-15-8767-2_30

11. Divyani Mittal, Pooja Suthar, Madhuri Patil, P.G.S. Pranaya, Dipti P. Rana and Bharat Tidke, Social Network Influencer Rank Recommender Using Diverse Features from Topical Graph, International Conference on Computational Intelligence and Data Science (ICCIDS 2019), The NorthCap University, Gurugram, 6th-7th September, 2019.

12. Anjali More and Dipti Rana, "An Experimental Assessment of Random Forest Classification Performance Improvisation with Sampling and Stage Wise Success Rate Calculation", International Conference on Computational Intelligence and Data Science (ICCIDS 2019), The NorthCap University, Gurugram, 6th-7th September, 2019.

13. Dholakia R., Randeria R., Dholakia R., Ashar H. and Rana D., "Cognitive Demand Forecasting with Novel Features Using Word2Vec and Session of the Day" In: Gunjan V., Zurada J., Raman B., Gangadharan G. (eds) Modern Approaches in Machine Learning and Cognitive Science: A Walkthrough. Studies in Computational Intelligence, vol 885. Springer, Cham, 2020. DOI: https://doi.org/10.1007/978-3-030-38445-6_5

14. Anjali More and Dipti Rana, "Performance Enrichment through Parameter Tuning of Random Forest Classification for Imbalanced Data Applications", Applied Machine Learning & Management of Volatility, Uncertainty, Complexity and Ambiguity (V.U.C.A) (AML VUCA 2020), Bhubaneswar India

15. Mitali Desai, Rupa G. Mehta and Dipti P. Rana, "RGNet: The Novel Framework to Model Linked ResearchGate Information into Network using Hierarchical Data Rendering", International Conference on Modelling, Simulation & Intelligent Computing, Dubai, 29-31 Jan. 2020. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3354388

16. Mitali Desai, Rupa G. Mehta and Dipti P. Rana, "A Survey on Techniques for Indexing and Hashing in Big Data" 4th International Conference on Computing Communication *and Automation (ICCCA)*, pp. 1-6, Dec. *2018.* doi: 10.1109/CCAA.2018.8777454.

17. Parikh Y., Palusa A., Kasthuri S., Mehta R. and Rana D., "Efficient Word2Vec Vectors for Sentiment Analysis to Improve Commercial Movie Success", In: Bhattacharyya S., Gandhi T., Sharma K., Dutta P. (eds) Advanced Computational and Communication Paradigms. Lecture Notes in Electrical Engineering, vol 475. Springer, Singapore, 2018. (DOI: https://doi.org/10.1007/978-981-10-8240-5_30)

18. Mitali Desai, Rupa G. Mehta and Dipti P. Rana, "Issues and challenges in big graph modelling for smart city: An extensive survey", International Conference on Computational Intelligence and Internet of Things (ICCIIoT 2018), National Institute of Technology, Agartala, India, pp. 44-50, Dec. 2018. (DOI: https://ssrn.com/abstract=3354388)

19. Isha Agarwal, Dipti Rana and Anjali More, "Predicting the Veracity of Fake News on Smart Media for Reducing Misinformation Diffusion ", International Conference on Computational Intelligence and Internet of Things (ICCIIoT 2018), National Institute of Technology, Agartala, India, Dec 2018.

20. Anjali More, Dipti Rana and Isha Agarwal, "Random Forest Classifier Approach for Imbalanced Big Data Classification for Smart City Application Domains ", International Conference on Computational Intelligence and Internet of Things (ICCIIoT 2018), National Institute of Technology, Agartala, India, Dec 2018.

21. Jenish Dhanani, Rupa Mehta, Dipti Rana and Bharat Tidke, "Big and Stream Data Analytics using Incremental MapReduce framework for Smart City", International Conference on Computational Intelligence and Internet of Things (ICCIIoT 2018), National Institute of Technology, Agartala, India, Dec 2018.

22. Nikhil Jain, Mitali Desai and Dipti P. Rana, "Empirical comparison of IoT based smart home models", International Conference on Computational Intelligence and Internet of Things (ICCIIoT 2018), National Institute of Technology, Agartala, India, Dec 2018.

STTP Organized

1. One Week Training Programme Boot Camp 2.0 on "Drone Applications" during 26-30 June 2023 under the project "Capacity Building for Human Resource Development in Unmanned Aircraft Systems (Drone and related Technology)", a project funded by Ministry of Electronics and Information Technology (MeitY), Government of India (GoI)

2. One Week Training Programme Boot Camp 1.0 on "Drone Assembly, Navigation, and Applications" during 8-12 April 2023 under the project "Capacity Building for Human Resource Development in Unmanned Aircraft Systems (Drone and related Technology)", a project funded by Ministry of Electronics and Information Technology (MeitY), Government of India (GoI)

3. Two Weeks AICTE Training and Learning (ATAL) Faculty Development Program (FDP) on "Social Media and Social Network Data Mining" during 2nd - 13th January 2023 Sponsored by ATAL Academy, New Delhi

4. One week TEQIP and C-DAC sponsored STTP on "High Performance Computing (HPC-2019)" during 27th - 31st May 2019

5. One week TEQIP and C-DAC sponsored STTP on "High Performance Computing (HPC-2018)" during 4th - 8th June 2018

6. Self sponsored STTP on "Web Programming Technologies (WPT-2018)" during 1st - 5th January 2018

7. Self sponsored STTP on "Advanced 'C' Programming for Engineers (ACPE-2017)" during 11th-15th December 2017

8. Self sponsored STTP on "'C' Programming for Engineers (CPE-2017)" during 4th-9th December (Excl. 6th) 2017

9. TEQIP-II sponsored Short Term Training Program, "Recent Trends in Big Data Analytics (RTBDA-2017)" during 27th Feb – 3rd Mar 2017 at COED, SVNIT

10. Short Term Training Program, "Data Mining Technique and Applications" during 8th - 12th Feb 2010 at COED, SVNIT

11. One week workshop on "First Step Towards Rise of Education" under TEQIP Service to Community Programme" at SVNIT

National Workshop Organized

1. 2 days Training Programme conducted on "**Microsoft Office (M365)**" for the staff / faculty / students of SVNIT, conducted by the Microsoft Corporation (India) Pvt Ltd in ONLINE mode at the Department of Computer Science and Engineering during 19th - 20th Oct. 2022

2. 2 days Online National Workshop on **"Big Data Analytics (BDA-2021)"** during 6 -7 Dec 2021 at DCSE, SVNIT

Expert Lectures Delivered @ other Institutes (Latest)

1. "Data Ecosystem", GUJCOST sponsored Six Days STTP on "Data Analytics and Visualization", Information Technology Department, Sardar Vallabhbhai Patel Institute of Technology, Vasad, Gujarat, 5th July 2022 (Through CISCO WebEx).

2. "Association Rule Mining", School of Information Technology, Artificial Intelligence & Cyber Security, Rashtriya Raksha University, Gandhi Nagar, Gujarat, 24th December 2020 (Through CISCO WebEx).

3. "Pointers in C", G. H. Raisoni Academy of Engineering and Technology, Nagpur, 14 August 2020 (Through CISCO WebEx)

4. "Social Computing" in National Conference on Sustainable Computing and Information Technology (SCIT-2017), Sarvajanik College of Engineering and Technology, Surat

Expert Lectures Delivered @ SVNIT

1. "Exploring Drone Data", 1 Week Training Programme Boot Camp 2.0 on "Drone Applications" during 26-30 June 2023 under the project "Capacity Building for Human Resource Development in Unmanned Aircraft Systems (Drone and related Technology)", a project funded by Ministry of Electronics and Information Technology (MeitY), Government of India (GoI)

2. "Drone Applications in Agriculture", 1 Week Training Programme Boot Camp 2.0 on "Drone Applications" during 26-30 June 2023 under the project "Capacity Building for Human Resource Development in Unmanned Aircraft Systems (Drone and related Technology)", a project funded by Ministry of Electronics and Information Technology (MeitY), Government of India (GoI)

3. "Drone Rules and Regulations", 1 Week Training Programme Boot Camp 2.0 on "Drone Applications" during 26-30 June 2023 under the project "Capacity Building for Human Resource Development in Unmanned Aircraft Systems (Drone and related Technology)", a project funded by Ministry of Electronics and Information Technology (MeitY), Government of India (GoI)

4. "Precision Agriculture", 1 Week Boot Camp 1.0 on "Drone Assembly, Navigation, and Applications" during 8-12 April 2023 under the project "Capacity Building for Human Resource Development in Unmanned Aircraft Systems (Drone and related Technology)", a project funded by Ministry of Electronics and Information Technology (MeitY), Government of India (GoI)

5. "Exploring Social Media and Social Network Mining", Two Weeks AICTE Training and Learning (ATAL) Faculty Development Program (FDP) on "Social Media and Social Network Data Mining" during 2nd - 13th January 2023 Sponsored by ATAL Academy, New Delhi

6. "Recent Trends of Web Programming", Self Sponsored 5 Days STTP on Web Programming Technologies (WPT-2018), 1-5 Jan 2018, at SVNIT

7. "Unexplored Aspects of Client Side Scripting", Self Sponsored 5 Days STTP on Web Programming Technologies (WPT-2018), 1-5 Jan 2018, at SVNIT

8. "Unexplored Aspects of Server Side Scripting", Self Sponsored 5 Days STTP on Web Programming Technologies (WPT-2018), 1-5 Jan 2018, at SVNIT

9. "Web Application Attacks and their Prevention", Self Sponsored 5 Days STTP on Web Programming Technologies (WPT-2018), 1-5 Jan 2018, at SVNIT

10. "Introduction of Advanced 'C' Programming", Self Sponsored 5 Days STTP on Advanced 'C' Programming for Engineers, 11-15 Dec 2017, at SVNIT

11. "Structures and Unions", Self Sponsored 5 Days STTP on Advanced 'C' Programming for Engineers, 11-15 Dec 2017, at SVNIT

12. "Embedded C", Self Sponsored 5 Days STTP on Advanced 'C' Programming for Engineers, 11-15 Dec 2017, at SVNIT

Certification

1. Examination of "**Computer Hacking Forensic Investigator v10**" administered by EC-Council on 27th May 2023

Certification/Training Attended (Latest)

1. 2 Days "Technology & Bhartiya Bhasha Summit" at New Delhi during 30 Sept. - 1 Oct. 2023

2. 5 Days Faculty Updation Program on "Capacity Building for Human Resources in Unmanned Aircraft System (Drone and Related Technology)" at Department of Aerospace Engineering, IISc Bangalore during 25-29 April, 2023

3. 5 Days Bootcamp Training Program on "Drone Applications and UAS" by Centre for Development of Advanced Computing (C-DAC), Noida during 13 - 17 March 2023

4. 3 Days Skill Training Program on "Do Drone" at Dept. of Aerospace Engg, IISc Bangalore during 16-18 November 2022

5. 1 Day Training on "X1 Social Discovery Tool" by ForensicsGuru.com at DoCSE, SVNIT, India on 29 June 2022

6. 6 Days Product-Oriented Training on "DIGITAL FORENSIC PRODUCTS (FRED, TX1, MAGNET AXIOM & UFED 4PC)" on "Computer Hacking Forensic Investigator v10" by Cyint Technologies, India at DoCSE, SVNIT, India during 23- 28 May 2022

7. Hands-on Session on "Quantum Computing" by RGIPT ACM Chapter on 12 Sept. 2021 (Online)

8. Online Webinar on "STI Connect Forum at University for R&D proposals on State Priority Areas of S&T" at SVNIT, Surat on 7th July 2020

Ph. D. Students - Degree Awarded

1. Dr. Jenish Dhanani (Guided with Dr. R. G. Mehta) (FIR: D16Co002)
    - Thesis Title: "Scalable Learning of Text Embedding for Big Data: Dictionary based Approaches for Sentiment Analysis of Informal Text and Recommendation System for Formal Text"
    - Viva-voce Date: 11th February 2022
    - Currently Working as: Co-Founder of CoreAI, Surat, Gujarat

2. Ms. Isha Agarwal (FIR: D17Co004)
    - Thesis Title: "Novel Approaches for Fake News Detection in Healthcare Domain"
    - Viva-voce Date: 24th May 2023
    - Currently Working as: Lab and Activity Coordinator, SVNIT-Surat

3. Ms. Mitali Desai (Guiding with Dr. R. G. Mehta) (FIR: DS17Co003)
    - Thesis Title: "A Systematic Approach to Identify and Rank Influential Scholars from Digital Scholarly Platforms "
    - Viva-voce Date: 25th May 2023
    - Currently Working as: Assistant Professor, Computer Engineering Department, C. K. Pithawala College of Engineering and Technology, Surat, Gujarat

Ph. D. Students - Thesis Submitted

4. Ms. Anjali S. More (PEC: DS15Co008)
    - Thesis Title: "A Systematic Approach to Identify and Rank Influential Scholars from Digital Scholarly Platforms "
    - Viva-voce Date: 25th May 2023
    - Currently Working as: Assistant Professor, Computer Engineering Department, C. K. Pithawala College of Engineering and Technology, Surat, Gujarat

Ph. D. Students - Presynopsis Presented

5. Mr. John Kenny (PEC: D18Co001)
6. Ms. Pranita Mahajan (PEC: D18Co004)

Ph. D. Students - Ongoing

7. Ms. Vaishnavee Rathod (Guiding with Dr. R. G. Mehta) (FSF: D20Co004)
8. Ms. Nikita (Guiding with Dr. R. G. Mehta) (FIR: D21Co001)
9. Mr. Patel Parmanand (ERS: D23CS004)
10. Ms. Varunakshi Bhojane (Guiding with Dr. R. G. Mehta) (ERS)

M. Tech. Dissertations

26. Drone Path Planning, Mr. Vandan Parmar (P22CS010), 2023-24

25. Drone SWARM Path Algorithm, Ms. Sarika (P22CS004), 2023-24

24. Gujarati Language Sentiment Analysis, Mr. Devanshu Jignesh Dudhia (P21CO014), 2021-23

23. Distributed High Utility Mining (HUIM), Mr. Chintankumar Rajput (P21CO003), 2021-23

22. GeoAI based Covid-19 Prediction Model, Dr. D. P. Rana, Ms. Jyoti Kumari (P20CO018), 2021-22

21. A Novel Machine Learning based Approach for Demand Forecasting of Retail Products using Clustering, Dr. D. P. Rana, Mr. Sarit Kiran Roy (P20CO009), 2021-22

20. Fine-Tuned Predictive Models for Forecasting Severity Level of Covid-19 Patient using Epidemiological Data, Dr. D. P. Rana, Ms. Shweta Anil Tikhe (P19CO018), 2020-21

19. Dictionary Based Gender Identification and Gender Based Sentiment Analysis with Polarized Word2vec, Dr. D. P. Rana, Ms. Navodita Saini (P19CO006), 2020-21

18. 802.11AX Target Wake Time, Dr Dipti P. Rana, Mr. Amey Bhagwat (NXP, Pune), Mr. Ashish Tripathi (P18CO001), 2019-20

17. Profiler Tool, Dr. Dipti P. Rana, Mr. Sanyog R. Kale, Intel Corporation, Bangalore, Mr. Dilip Puri (P18CO008), 2019-20

16. Analysis of Oil and Gas Sensor Data Forecasting for Alert Generation based on Autoregressive Models, Dr. Dipti P. Rana and Mr. Mehul Parmar (Principal Software Architect, Baker Hughes (BHGE), Mumbai), Mr. Pradeep Kumar Yadav (P17CO010), 2018-19

15. Continuous Integration and Continuous Deployment Automation, Dr. D. P. Rana, Mr. Bhupendra Singh (Ericsson R&D, Gurgaon), Ms. Krishna Meena (P17CO017), 2018-19

14. Bluetooth Firmware Debug Techniques for Intel BT SOC, Dr. D. P. Rana, Mr. Lakshmipathy K. (Intel, Banglore), Mr. Nikhil Jain, 2017-18

13. Post Processing for GNSS, Dr. D. P. Rana, Mr. B. N. Gohil, Mr. D. Gupta (Intel Banglore), Mr. Ranjeet Kumar, 2017-18

12. A Novel Approach to Infer Closed Itemsets in Distributed Environment, Dr. D. P. Rana, R. G. Mehta, Mr. K. Davis, 2015-16

11. Sentiment and Similarity Analysis of Tweets in Distributed Environment, Dr. D. P. Rana, R. G. Mehta, Mr. H. Jangir, 2015-16

10. Hierarchical Clustering Algorithm for Segregation of Rare and Frequent Itemsets from Reduced Subspace, Dr. D. P. Rana, R. G. Mehta, Mr. P. Somkunwar, 2013-14

9. WARM: A Framework for Weather Prediction using Temporal Association Rule Mining   Dr. D. P. Rana, R. G. Mehta, Ms. P. D. Chaudhari, 2013-14

8. Clustering High Dimensional Large Data: A Cluster Ensembles Approach, Dr. R. G. Mehta, Dr. D. P. Rana, Mr. Bharat A. Tidke, 2012-13

7. Incremental classification of High Dimensional Data, Dr. R. G. Mehta, Dr. D. P. Rana, 2012-13

6. Novel Approach for Performance Improvement of Association Rules Mining, Dr. D. P. Rana, R. G. Mehta, Mr. M. R. Patel, 2012-13

5. Analysis of Temperature Prediction using Temporal Association Rule Mining, Dr. D. P. Rana, R. G. Mehta, Mr. A. R. Chaudhari, 2012-13

4. A Novel Approach for high dimensional data clustering, Dr. R. G. Mehta, Dr. D. P. Rana, 2011-12

3. A Novel Tree Based Classification, Dr. R. G. Mehta, Dr. D. P. Rana, Mr. Mehul Lad, 2011-12

2. HTTP Botnet Detection using Frequent Patternset Mining, Dr. D. P. Rana, Mr. S. S. Garasia, 2011-12

1. Detecting E-mail Spam using Spam Word Associations, Dr. D. P. Rana, Mr. N. S. Kumar, 2011-12

1b. Incremental Feature Selection Using Incremental FP Growth Algorithm, Dr. D. P. Rana, 2013-14

1a. Association Rule Mining Using Column DBMS, Dr. D. P. Rana, 2012-13

Other Significant Activities

1. Member of Board of Studies of the Department of Computer Science & Engineering (CSE)

2. Expert Member to re-validate & finalize the Vision, Mission, PSO, PEO of the Information Technology Department, Tapi Diploma Engineering College, Surat from July 2022

3. Mentors of Udayan Shalini Fellowship, Surat (https://www.facebook.com/USFSurat) from Jan 2023

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