Dr. RAHUL DIXIT
Assistant Professor
Department of Artificial Intelligence
Sardar Vallabhbhai National Institute of Technology Surat
Ichchhanath, Keval Chowk, Surat – 395007, Gujarat, IN
Mobile: +91-9438867961
Email: rahuldixit@aid.svnit.ac.in / rahul2012ism@gmail.com
ResearchGate: https://www.researchgate.net/profile/Rahul-Dixit-7
Google scholar: scholar.google.co.in/citations?user=v8yxEN8AAAAJ&hl=en
LinkedIn: https://www.linkedin.com/in/dr-rahul-dixit-b5b941b0/

ACADEMIC QUALIFICATION

- **Ph.D.** National Institute of Technology, Rourkela, Odisha, India
- **M.Tech** Indian Institute of Information Technology Dhanbad, Dhanbad, India
- **B.Tech** Uttar Pradesh Technical University, UP, India

TEACHING EXPERIENCE

- Assistant Professor (Grade I- level 12) in the Department of Artificial Intelligence SVNIT Surat, from Oct 2023 to present
- Assistant Professor (Grade II- level 11) in the Department of Computer Science and Engineering, IIIT Pune, from Jan 2022 to Oct 2023
- Assistant Professor (Grade II- level 10) in the Department of Computer Science and Engineering, IIIT Pune, from Jan 2020 to Jan 2022
- Assistant Professor (Adjunct) in the Department of Computer Science and Engineering, IIIT Pune, Aug 2019 – Jan 2020
- Assistant Professor in the Department of Computer and Communication Engineering, Manipal University Jaipur, from 07/2018 to 08/2019

RESEARCH INTERESTS

- Multimedia Information Authentication
- Multimedia Security

- Document Authentication
- Medical Image Authentication
- Digital Image Processing
- Signature Authentication
- Digital Image and Video Forensics
- Information Retrieval
- Natural Language Processing

PUBLICATIONS

(Citation- 347, h-index- 10, I10- index- 11)

Books:

1. A. Roy, **R. Dixit**, R. Naskar and R. S. Chakraborty, "Digital Image Forensics – Theory and Implementation", Springer, 2019. (ISBN: 978-981-10-7643-5). http://www.springer.com/us/book/9789811076435.

2. R. Naskar, V.U. Sameer, **R. Dixit**, "Digital Forensics: Current Trends and Practices", Stadium Press LLC, USA, 2019. (ISBN: 978-93-85046-48-3).

International Journals:

1. A. Dixit and **R. Dixit**, **"***Forgery detection in medical images with distinguished recognition of original and tampered regions using density-based clustering technique",* **Applied Soft Computing (Elsevier),** 109652, 2022.
   DOI: https://doi.org/10.1016/j.asoc.2022.109652
   [Impact Factor: 8.263] (SCIE)

2. **R. Dixit**, D. S Panda, S. S. Panda, "*An Advanced Susceptible-Exposed-Infectious-Recovered Model for Quantitative Analysis of COVID-19*", Springer-Sadhana (2021) 46: 85
   DOI: https://doi.org/10.1007/s12046-021-01617-0
   [Impact Factor: 1.26] (SCI)

3. **R. Dixit**, A. Nandal, A. Dhaka, V. Agarwal and Y. Varghese, "*LWT-DCT based Image Watermarking Scheme using Normalized SVD*", Recent Advances in Computer Science andCommunications, Bentham Science Publisher (2020) 13: 1
   DOI: https://doi.org/10.2174/2666255813999200821161656

4. **R. Dixit**, A. Nandal, A. Dhaka, Y. Varghese and V. Agarwal, "*A DCT Fractional Bit Replacement Based Dual Watermarking Algorithm for Image Authentication*", Recent

Advances inComputer Science and Communications, Bentham Science Publisher (2020)13:1
DOI:https://doi.org/10.2174/2666255813999200818203600

5. A. K. Sharma, A Nandal, A. Dhaka, **R. Dixit**, "*A survey on machine learning based brain retrieval algorithms in medical image analysis*", Health and Technology-Springer, (2020)Aug 6:1-5.
DOI: https://doi.org/10.1007/s12553-020-00471-0

6. **R. Dixit** and R. Naskar, "*Region Duplication Detection in Digital Images based on Centroid Linkage Clustering of Key-points and Graph Similarity Matching*", Multimedia Tools andApplications, Springer,(2018).
DOI: https://doi.org/10.1007/s11042- 018-6666-1
[Impact Factor: 2.57] (SCI)

7. **R. Dixit** and R. Naskar, "*Review, Analysis and Parameterization of Techniques for Copy-Move Forgery Detection in Digital Images*", IET Image Processing, vol. 11, no. 9, pp.746–759, (2017).(SCI),
DOI: https://doi.org /10.1049/iet-ipr.2016.0322
[Impact Factor: 2.37] (SCI)

8. **R. Dixit,** R. Naskar and Swati Mishra, "*Blur-invariant copy-move forgery detection technique with improved detection accuracy utilising SWT-SVD*", IET Image Processing, vol. 11, no.5, pp. 301–309, (2017).
DOI: https://doi.org /10.1049/iet- ipr.2016.0537
[Impact Factor: 2.37] (SCI)

9. **R. Dixit** and R. Naskar, "*Copy–move forgery detection utilizing Fourier–Mellin transform log-polar features*", Journal of Electronic Imaging, vol. 27, no. 2, pp. 023007, (2018).
DOI: https://doi.org/10.1117/1.JEI.27.2.023007
[Impact Factor: 0.94] (SCI)

10. J. Bakas, R. Naskar and **R. Dixit**, "*Detection and Localization of Inter- Frame Video Forgeries based on Inconsistency in Correlation Distribution between Haralick Coded Frames*",Multimedia Tools and Applications- Springer, pp. 1–31, (2018).
DOI: https://doi.org/10.1007/s11042- 018-6570-8
[Impact Factor: 2.57] (SCI)

Book Chapter

1. Jakhar, Shyo Prakash, Amita Nandal, and **Rahul Dixit**. "Classification and Measuring Accuracy of Lenses Using Inception Model V3." Innovations in Computational Intelligence and Computer Vision. Springer, Singapore 376-383, 2020.

2. Arvind Dhaka, Amita Nandal and **Rahul Dixit**, "Cognitive Radio Network based Design and Security Challenges in 5G Communication", Forensic Investigations and Risk Management in Mobile and Wireless Communications, IGI Global, pp. 221-241, 2019.

International Conferences:

1. S.S. Panda, D.S. Panda, **R. Dixit**, "Revolutionary Solutions for Comprehensive Assessment of COVID-19 Pandemic". In proceedings of International Conference on Computational Intelligence. Algorithms for Intelligent Systems. Springer, Singapore. 2023.

2. Yohan Varghese Kuriakose, VardanAgarwal, **R. Dixit**, and Anuja Dixit, "*A Novel Technique for Fake Signature Detection Using Two-Tiered Transfer Learning*", International Conference on Computational Intelligence (ICCI-2020**,** IIIT Pune), **Springer**, pp. 45-58, 2022.

3. V. Agarwal, Y. Varghese and **R. Dixit**,"*Classification of Melanoma using Efficient Nets with Multiple Ensembles and Metadata*", International Conference on Computational Intelligence (ICCI 2020), IIIT Pune, India.

4. **R. Dixit** and R. Naskar. "*Copy-Rotate-Move Forgery Detection using Complex Wavelet Transform and Local Binary Pattern*." 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT). IEEE, 2019. IIT Kanpur.

5. **R. Dixit**, R. Naskar and A. Sahoo,"*Copy–Move Forgery Detection Exploiting Statistical Image Features"*, IEEE International Conference on on Wireless Communications Signal Processing and Networking(WiSPNET 2017), Chennai, India.

6. **R. Dixit** and R. Naskar, "*DyWT based Copy–Move Forgery Detection with Improved Detection Accuracy"*, International Conference on Signal Processing and Integrated Networks (SPIN 2016), Noida, India.

7. M. Shandilya, R. Naskar and **R. Dixit**, *"Detection of Geometric Transformations in Copy-Move Forgery of Digital Images"*, Proceedings of 12th IEEE India International Conference (INDICON 2015), New Delhi, India.

8. J. Wadhwa, T. Ahemad, R. Naskar and **R. Dixit**, *"On Parameterization of Block based CopyMove Forgery Detection Techniques",*ACM Research in Adaptive and Convergent Systems (RACS 2015), Prague, Czech Republic.

ADDITIONAL RESPONSIBILITIES

- Controller of Examinations: January 2021-January 2023.
- B.Tech and M.Tech Project Evaluation In-charge: January 2020- December 2021
- Member of R& D Cell
- Member of Training & Placement Committee
- Member of Rajbhasha cell

PROFESSIONAL ACTIVITIES

Acted as reviewer for:

- Journal of Information Security and Applications-Elsevier.
- Journal of Advances in Science, Technology and Engineering Systems-Elsevier.
- Journal of Pattern Recognition-Elsevier.
- IET Image Processing Journal.
- Journal of Electronic Imaging.

CONFERENCE/ STTP/ FDP ORGANISHED

- TEQIP-III sponsored STTP on jointly organized by CSVTU, Bhilai, Chhattisgarh & IIIT Pune, 13th September – 20th October 20, 2020. (as faculty coordinator & resource person)
- TEQIP-III sponsored FDP on "Artificial Intelligence and its Modern Applications" jointly organized by CSVTU, Bhilai, Chhattisgarh & IIIT Pune, 20th November – 04th December, 2020 (as faculty coordinator & resource person)
- International conference on "Artificial Intelligence for Resilient Happy Society 2022" held on 8th - 9th January 2022.

COURSE TAUGHT

- Information Retrieval
- Digital Image Processing
- Cryptography and Network Security
- Programming in C

****