

Dr. ISHAN BHARDWAJ

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SUMMARY

Presently working as an Assistant Professor in Information Technology Department of Rajkiya Engineering College Bijnor, an institute of Uttar Pradesh Government. Before that, I was working as Research Coordinator at a leading organisation. I have done my Ph.D. work in the area of Biometric Security at National Institute of Technology Raipur. I have received M.Tech degree in Computer Technology and B.Tech in Computer Science and Engineering. Possess a sound understanding of fundamental principles and trends in the field of **Machine Learning**. I have been a part of various administrative activities. At present, I hold the charge of **TEQIP Coordinator** of REC Bijnor and **Head of the Department of Information Technology and Computer Science**.

PHD WORK

Carried out the research work in the field of biometrics, entitled as **A Novel Approach for User Authentication Based on Fingerprint Dynamics**. The aim was to develop a framework for biometric technology to facilitate a secure and robust authentication. The project involves multiple biometric technologies as well as principles of cryptography. Successful experimentation validating the discriminability of the technique have been carried out. Out of this work, Four papers have been published in refereed journals and two papers published in international conferences. Also, **two Patents** filed and published at Indian Patent Office.

PATENTS

- Patent Application No.: 3895/MUM/2014 filed on 04/12/2014, Title: Method And System For Multifactor Biometric Authentication. Applicant & Inventor: **Ishan Bhardwaj**, Narendra D. Londhe and Sunil Kumar Kopparapu (Published).
- Patent Application No.: 2795/MUM/2014 filed on 02/09/2014, Title: System and Methods For Generation and Matching of Biometric Template. Applicant & Inventor: **Ishan Bhardwaj**, Narendra D. Londhe and Sunil Kumar Kopparapu (Published).

PUBLICATIONS

Journals (SCI indexed)

- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu, "A spoof resistant multibiometric system based on the physiological and behavioral characteristics of fingerprint," *Pattern Recognition*, vol. 62, pp. 214–224, 2017. (**Impact Factor: 5.898**)
- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu, "Study of Imposter Attacks on Novel Fingerprint Dynamics Based Verification System," *IEEE Access*, vol. 5, pp. 595-606, 2016. (**Impact Factor: 3.557**)
- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu, "A Novel Behavioural Biometric Technique for Robust User Authentication," *IETE Tech. Rev.*, vol. 34(5), pp.478-490, 2017. (**Impact Factor: 1.339**)
- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu, "Performance Evaluation of Novel Fingerprint Dynamics Biometric Technique in Machine Learning and Score Level Fusion Framework," *IETE Technical Review* (**Impact Factor: 1.339**)

International Journals (Scopus)

- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu; "User Attitude Towards Novel Biometric System and Usability Analysis," *International Journal of Biometrics*, vol. 10(3), pp. 214-231, 2018, Inderscience Publishers (IEL).

International Journals

- **I. Bhardwaj**, and N. D. Londhe, "Speaker Dependent and Independent Isolated Hindi Word Recognizer using Hidden Markov Model (HMM)," *Int. J. Comput. Appl.*, vol. 52, no. 7, pp. 34-40, 2012.

- N. Perveen, D. Kumar, and **I. Bhardwaj**, “An overview on template matching methodologies and its applications,” Int. J. Res. Comput. Commun. Technol., vol. 2, no. 10, pp. 988–995, 2013.
- N. Perveen, D. Kumar, and **I. Bhardwaj**, “Facial Expression Recognition by Statistical, Spatial Features and using Decision Tree,” Int. J. Comput. Appl., vol. 64, no. 18, pp. 16-21, 2013.
- A, Raj; M, Kannaujiya, A, Bharti; R, Prasad; N. Singh; **I, Bhardwaj**, “Model for Object Detection using Computer Vision and Machine Learning for Decision Making International Journal of Computer Applications, 181, 43, 42-46, 2019.

International Conferences

- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu, “Fingerprint Dynamics: A Novel Biometrics for Personal Authentication,” in 2016 IEEE International Conference on Signal and Information Processing (ICONSIP), 6-8 Oct. 2016, pp. 1-5.
- **I. Bhardwaj**, N. D. Londhe, and S. K. Kopparapu, “Feature selection for novel fingerprint dynamics biometric technique based on PCA,” in 2016 IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI), 21-24 Sept. 2016, pp. 1730–1734.
- **I. Bhardwaj** and N. D. Londhe, “Hidden Markov Model based isolated Hindi word recognition,” in 2012 2nd International Conference on Power, Control and Embedded Systems (ICPCES), 2012, pp. 80-85.
- Dahiya, Ankit; Bagchi, Mayank; ; **I, Bhardwaj**, “Road Anomaly Detection Techniques: A Survey,” IEEE Conference ID: 42835, 2018, 5th International Conference on Computing for Sustainable Global Development, 14th - 16th March, 2018.(presented)
- V, Jain; R, Nagpal; A, Hussain; **I, Bhardwaj**, “Wireless Sensor Networks and its Applications,” IEEE Conference ID: 42835, 5th International Conference on Computing for Sustainable Global Development, 14th - 16th March, 2018 (presented).
- G, Singh; A, Gond; Prachi; N. Singh; **I, Bhardwaj**, “Model for pattern recognition approach to detect an object,” Presented in 4th International Conference Academic Research in Engineering, Management and Information Technology (ICAREMIT-2019) IEEE, 16-18 April, 2019 (presented).
- R, Ali; S, Anwar; G, Jaiswal; A, Sharma; N. Singh; **I, Bhardwaj**, “Gesture Driven User Computer-Interaction Using Machine Learning and Computer Vision. 5th International Conference Academic Research in Engineering, Management and Information Technology (ICAREMIT-2019) IEEE, 16-18 April, 2019 (presented).

MEMBERSHIPS

- IEEE Membership, Active Total years: 7
- IEEE Signal Processing Society, Active Total years: 3
- IEEE Sensor Council, Active Total years: 3
- IEEE Biometrics Council, Active Total years: 6
- IEEE Young Professionals, Active Total years: 6
- IEEE Internet of Things Community, Active Total years: 6
- IEEE Computer Society Technical Committee on Security and Privacy, Active Total years: 6

OTHER RECOGNITION

- Selected and participated for Second Batch of “**NIT Scholars In residence program at Rashtrapati Bhavan**” held in 2015 at Rashtrapati Bhavan.
- Reviewer of refereed Journals like IEEE Transactions on Cybernetics etc.

PERSONAL DETAILS

Father’s Name: Dr. S. K. Sharma

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