

Dr. Aditya Khamparia
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Education Qualification

	Organization	Year of award
Undergraduate	RGPV Bhopal	2010
Post-graduation	VIT University	2013
Ph.D.	Lovely Professional University, India	2018
Post-Doctoral Training	University of Fortaleza	2019

Professional Experience (In Years)

Teaching Experience: 08 years
Research Experience: 08 year

Areas of Research (Maximum Five Bullet Points)

- Educational Technologies
- Machine Learning
- Biomedical Engineering
- Deep learning
- Data Science and Visualization

Research/Consultancy Grants

Title of Projects	Funding Agency	Duration (Specific Dates)	Total grant	Role (PI/CO-PI)
Design and Development of Adaptable e-learning System for Improving Education in Neuromuscular Disease Affected Children.	ICSSR, New Delhi	10 December 2018-12 Jan 2021	5,25,000	CO-PI

Publications

International

- Aditya Khamparia, Deepak Gupta, Joel JPC Rodrigues, Victor Hugo C de Albuquerque.: “DCAVN: Cervical cancer prediction and classification using deep convolutional and variational autoencoder network”. In: Multimedia Tools and Applications (Springer, SCIE, IF =2.69), DOI: <https://doi.org/10.1007/s11042-020-09607-w>, pp. 1-17, 2020.
- Aditya Khamparia, Deepak Gupta, Victor Hugo C de Albuquerque, Arun Kumar Sangaiah, Rutvij H. Jhaveri: “Internet of health things driven deep learning system for detection and classification of cervical cells using transfer learning”. In: Journal of Supercomputing (Springer, SCIE, IF=2.25), DOI: [10.1007/s11227-020-03159-4](https://doi.org/10.1007/s11227-020-03159-4), 2020.
- Aditya Khamparia*, Babita Pandey, Devendra K Pandey, Deepak Gupta, Ashish Khanna, Victor Hugo C. de Albuquerque: “Comparison of RSM, ANN and Fuzzy logic for extraction of Oleonolic acid from Ocimum Sanctum”. In: Computers in Industry (Elsevier, SCIE, IF=4.76), Vol. 117, May 2020, 103200, DOI: <https://doi.org/10.1016/j.compind.2020.103200>, 2020.
- Rajkamal Kaur, Lalit Kumar Singh, Aditya Khamparia, “Modeling uncertainty of instrument and control system of nuclear power plant”. In: Annals of Nuclear Energy (Elsevier, SCIE, IF=1.6), Vol. 139, 107207, pp. 1-19, 2020.
- Aditya Khamparia*, Prakash Kumar Singh, Poonam Rani, Debabrata Samanta, Ashish Khanna, Bharat Bhushan.: An internet of health things-driven deep learning framework for detection and classification of skin cancer using transfer learning, Transactions on Emerging Telecommunications Technologies (2020), Wiley: e3963 (Wiley, SCI, IF = 1.8).
- Praveen Bhanodia, Aditya Khamparia, Babita Pandey.: Supervised Shift k-Means Based Machine Learning Approach for Link Prediction Using Inherent Structural Properties of Large Online Social Network, Computational Intelligence (2020), Wiley, DOI: [10.1111/COIN.12372](https://doi.org/10.1111/COIN.12372) (Wiley, SCI, IF=1.2).
- Amritpal Singh, Aditya Khamparia.: A hybrid whale optimization-differential evolution and genetic algorithm-based approach to solve unit commitment scheduling problem: WODEGA, Sustainable Computing: Informatics and System,(Elsevier, SCI-E: 2.72), Vol. 28, pp. 100442, 2020.
- Aditya Khamparia*, Sagar Pande, Deepak Gupta, Ashish Khanna, Arun Kumar Sangaiah: “Multi level framework for Anamoly detection in Social Networking”. In Library Hi-Tech (EMERALD, SCIE, IF=1.2), DOI: [10.1108/LHT-01-2019-0023](https://doi.org/10.1108/LHT-01-2019-0023), 2020.
- Utkarsh Agrawal, Jatin Sharma, Rahul Singh, Deepak Gupta, Ashish Khanna, Aditya Khamparia.: “Hybrid Wolf-Bat algorithm for optimization of connection weights in multi-layer perceptron”. In: ACM Transactions on Multimedia Computing Communications and Applications (ACM Transactions, IF= 2.25), DOI: <https://doi.org/10.1145/3350532>, 2020.

- Utkarsh Agrawal, Jatin Sharma, Rahul Singh, Deepak Gupta, Ashish Khanna, Aditya Khamparia.: “Hybrid Wolf-Bat algorithm for optimization of connection weights in multi-layer perceptron”. In: ACM Transactions on Multimedia Computing Communications and Applications (ACM Transactions, IF= 2.25), DOI: <https://doi.org/10.1145/3350532>, 2020.
- Vikash Chouhan, Sanjay Kumar Singh, Aditya Khamparia, Deepak Gupta, Prayag Tiwari, Catarina Moreira, Robertas Damaševičius, Victor H.C. de Albuquerque, “A Novel Transfer Learning Based Approach for Pneumonia Detection in Chest X-Ray Images”, 2020, Applied Sciences (MDPI), 10(2), 559, SCI (IF 2.21).
- Rahul Malik, Aditya Khamparia, Sahil Garg, Deepak Gupta, Bong Jun Choi, M Shamim Hossain.: Reversible data hiding and smart multimedia computing using big data in remote sensing systems, (IEEE Access, SCIE, IF:3.06), Vol. 8, pp. 153546-153560, 2020
- Bharat Bhushan, Aditya Khamparia, K Martin Sagayam, Sudhir Kumar Sharma, Mohd Abdul Ahad, Narayan C Debnath.: Blockchain for smart cities: A review of architectures, integration trends and future research directions, Sustainable cities and society (Elsevier, SCIE, IF: 5.67), Vol. 61, pp. 102360, 2020.
- Aditya Khamparia, Gurinder Saini, Deepak Gupta, Ashish Khanna, Shrasti Tiwari, Victor Hugo C. de Albuquerque, “Seasonal Crops Disease Prediction and Classification using Deep Convolutional Encoder Network”, Circuits System and Signal Processing, 2019, <https://doi.org/10.1007/s00034-019-01041-0>, SCIE (IF 1.99).
- Aditya Khamparia, Babita Pandey, Deepak Gupta, Joel J P C Rodrigues, Ashish Khanna, Prayag Tiwari, “Investigating the importance of psychological and environmental factors for improving learner’s performance using Hidden Markov Model”, IEEE Access, Vol. 7 (1), pp. 21559-21571, 2019, SCIE (IF 4.09).
- Aditya Khamparia, Babita Pandey, Deepak Gupta, Joel J P C Rodrigues, Ashish Khanna, Prayag Tiwari, “Investigating the importance of psychological and environmental factors for improving learner’s performance using Hidden Markov Model”, IEEE Access, Vol. 7 (1), pp. 21559-21571, 2019, SCIE (IF 4.09).
- Praveen Bhanodia, Babita Pandey, Devendra Kr Pandey, Aditya Khamparia, “A Comprehensive Survey of Link Prediction in Social Networks: Techniques, Parameters and Challenges”, Expert System with Applications, Vol. 124, pp. 164-18, 2019, SCI (IF 4.29).
- Aditya Khamparia, Karan M Singh.: “A Systematic Survey on Deep Learning Architectures and Applications”, Expert System, <https://doi.org/10.1111/exsy.12400>, Wiley, SCIE (IF 1.5), 2019.
- Aditya Khamparia, Babita Pandey, Ashish Luhach, Aman Singh, Devendra K Pandey.: “Classification and Identification of Primitive Kharif Crops using Supervised Deep

Convolutional Networks”. In: Sustainable Computing: Informatics and Computing (ELSEVIER, SCIE, IF = 1.8), <https://doi.org/10.1016/j.suscom.2019.07.003>, 2019.

- Aditya Khamparia, Gurinder Saini, Babita Pandey, Shrasti Tiwari, Deepak Gupta, Ashish Khanna.: “KDSAE: Chronic kidney disease classification with multimedia data learning using deep stacked autoencoder network”. In: Multimedia Tools and Applications (SPRINGER, SCIE, IF=2.01), <https://doi.org/10.1007/s11042-019-07839-z>, 2019.
- Aditya Khamparia, Babita Pandey, Shrasti Tiwari, Deepak Gupta, Ashish Khanna, Joel J.P.C Rodrigues, “An integrated Hybrid CNN-RNN model for visual description and generation of captions”. In: Circuit Systems and Signal Processing (Springer, SCIE, IF=1.99), DOI: <https://doi.org/10.1007/s00034-019-01306-8>, 2019.
- Aditya Khamparia, Aman Singh, Divya Anand, Deepak Gupta, Ashish Khanna, Arun Kumar N, Joseph Tan, “A Novel deep learning based multi-model ensemble methods for prediction of neuromuscular disorders”, Neural Computing and Applications, 2018, <https://doi.org/10.1007/s00521-018-3896-0>, SCIE (IF 4.6).
- Aditya Khamparia and Babita Pandey, “Effects of Visual Map Embedded Approach on Students Learning Performance using Briggs-Myers Learning Style in Word Puzzle Gaming Course”, Computers and Electrical Engineering, 5 Jan 2018 Online DOI: [10.1016/j.compeleceng.2017.12.041](https://doi.org/10.1016/j.compeleceng.2017.12.041). (IF = 2.1) Elsevier (SCI indexed).

Book Chapters

1. Aditya Khamparia, Babita Pandey.: Book Chapter on Impact of Interactive Multimedia in E-Learning Technologies: Role of Multimedia in E-Learning. In: Enhancing Academic Research with Knowledge Management Principles, Idea Group Publisher (IGI Global), USA. Online Doi: [10.4018/978-1-5225-2489-2.ch007](https://doi.org/10.4018/978-1-5225-2489-2.ch007),(2017). (API 6).
2. Rubina Chaudhary, Aditya Khamparia.: Prediction of Bus Arrival time using Intelligent Computing methods. In: Pervasive Computing: A Networking Perspective and Future Directions, Springer, Accepted, (2018).
3. Naman Gupta, Rishabh Jain, Deepak Gupta, Ashish Khanna, Aditya Khamparia, Modified ant lion optimization algorithm for improved diagnosis of thyroid disease, Cognitive Informatics and Soft Computing, 599-610, Springer, 2020.
4. Utkarsh Shrivastav, Sanjay Kumar Singh, Aditya Khamparia, A Novel Approach to Detect Edge in Digital Image Using Fuzzy Logic, In: Sustainable Technologies for Computational Intelligence, 63-74, Springer, 2020.

5.Gurinder Saini, Aditya Khamparia, Ashish Kumar Luhach. Classification of Plants Using Convolutional Neural Network, In: Sustainable Technologies for Computational Intelligence, 551-561, Springer, 2020.

6.Amritpal Singh, Aditya Khamparia, Ashish KrLuhach. Performance comparison of Apache Hadoop and Apache Spark, In: Proceedings of the Third International Conference on Advanced Informatics for Computing Research, 1-5, Springer, 2019.

7.Praveen Kumar Bhanodia, Aditya Khamparia, Babita Pandey, Shaligram Prajapat. Online social network analysis, In: Hidden Link Prediction in Stochastic Social Networks, pages 50-63, IGI Global, USA, 2019.

8.Praveen Kumar Bhanodia, Kamal Kumar Sethi, Aditya Khamparia, Babita Pandey, Shaligram Prajapat. Similarity-Based Indices or Metrics for Link Prediction, In: Hidden Link Prediction in Stochastic Social Networks, pages 1-29, IGI Global, USA, 2019.

9.Aditya Khamparia, Babita Pandey. An Adaptive Java Tutorials Using HMM-Based Approach, In: Smart Innovations in Communication and Computational Sciences, pages 101-111, Springer, USA, 2019.

Authored Books

NA

Edited Books

1. Aditya Khamparia, Babita Pandey, “Hidden Link Prediction in Stochastic Social Networks”, IGI Global, USA, Pages 281, ISBN: 9781522590965, DOI: 10.4018/978-1-5225-9096-5, 2018.
2. Aboul Ella Hassanien, Aditya Khamparia, Deepak Gupta, K. Shankar, Adam Slowik(Eds), “Cognitive Internet of Medical Things for Smart Healthcare: Services andApplications”, published by Springer’s Studies in Systems, Decision and Control.[ISBN:978-3-030-55832-1], 2020.
3. Aditya Khamparia, Ashish Khanna, Bao Le Nguyen, Nhu Gia Nguyen, “Recent Advances in Nature Inspired Optimization Algorithms, Techniques and Biomedical Applications”, to be published by De-Gruyter, Germany [In Press]
4. Deepak Gupta, Aditya Khamparia(Eds), “Emerging trends and role of Fog, Edge andPervasive Computing in Intelligent IoT driven applications”, published by IEEEPress (Scopus Indexed) [ISBN: 978-111-96-7007-0], 2020.

5. Deepak Gupta, Aditya Khamparia, Ashish Khanna, Oscar Castillo (Eds), “Advances in Soft Computational Data Research and Fuzzy Systems”, published by Springer’s Studies in Fuzziness and Soft Computing, 2021. [Published]

6. Aditya Khamparia, Rubaiyat Mondal, Prajoy Podder, Victor Hugo C de Albuquerque, Bharat Bhushan, Sachin Kumar, “Computational Intelligence for Managing Pandemics: Experiences from COVID-19”, to be published by De-Gruyter, Germany [In Press]

Patents

	Inventors	Title and Award/Application no.
Awarded	NA	NA
Published	Aditya Khamparia et al.	Intelligent Blind Assisting Closet”having Patent No.IN201811016365.
	Aditya Khamparia et al.	Intelligent Deep Well Rescue System using Ultrasonic Sensors” having Patent No. IN20194048191.
	Aditya Khamparia et al.	System and Method Remotely Monitor and analyze the Progress of aConstruction Project” having Patent No. IN202021004060
Filed	NA	NA

Research Supervision

	Completed	Ongoing
PG/M.Phil	8	1
Ph.D	2	2
Post-Doctoral	0	0

Honors, Recognition and Awards

* Best paper award, International multi track conference on science, engineering and technical Innovations, 3-4 June, 2014, CT Group of institutions, Jalandhar, Panjab, India.

Best Researcher Award worth Rs 25,000/-2015-16,Lovely professional University

➤Best Researcher Award worth Rs 30,000/-2016-17, Lovely professional University

➤Best Researcher Award worth Rs 10,000/-2017-18, Lovely professional University

- Best Researcher Excellence Award worth Rs 50,000/-2018-19, Lovely professional University
- Honorary Editor of ICSES Transactions on Image Processing and Pattern Recognition(ITIPPR).
- Special Issue Editor: Recent Advancement in Information Science and Technology, SCOPUS, Bentham Science Publisher, Recent Patents on Computer Science.
- Special Issue Editor: Smart Sensors for Sustainable Internet of Everything(IoE), SCOPUS, Bentham Science Publisher, Recent trends in Engineering.
- Guest Editor, Special Issue on "Bio-Inspired Optimization Techniques for BioMedical Data Analysis" in International Journal of Innovative Computing and Applications (IJICA), Inderscience, Indexed in Scopus.
- Guest Editor, Special Issue on "Knowledge Management and Data Representation in Network Sciences" in International Journal of Electronic Business (IJEB), Inderscience, Indexed in Scopus.
- Guest Editor, Special Issue on "Emerging Advancements Using Computational Intelligence Paradigm for Cyber Physical Systems" in Journal of Cyber-Physical Systems, Taylor & Francis, Indexed in Scopus.
- Guest Editor, Special Issue on "Computational Advances in Healthcare Solutions" in International Journal of Computer Applications in Technology (IJCAT), Inderscience, Indexed in Scopus, ESCI.
- Guest Editor, special issue on "Emerging Digitalization Technologies and Future Trends for Intelligent Transportation Systems" in International Journal of Vehicle Information and Communication Systems (IJVICS), Inderscience, Indexed in Scopus.
- Organizing Secretary for ICICCR 2020 at Punjab Institute of Technology, PIT Rajpura, MRSPTU, Bathinda, Punjab, India
- Publicity Chair for Springer 4th International Conference on Innovative Computing and Communication being held at Shaheed Sukhdev College of Business Studies, University of Delhi, New Delhi on 20-21st February 2020.
- Publicity Chair Springer 1st International Conference on Data Analytics and Management(ICDAM) being held at Warsaw, Poland in association with Jan Wyzylowski University, Poland & B.M. Institute of Engineering & Technology, Haryana, India on 18-19th June 2020.

➤ Publication Chair of Springer 2nd International Conference on Innovative Computing and Communication at Technical University of Ostrava, Czech Republic being held on 21-22nd March 2019.

Membership of Professional Bodies

- Life Membership of ISTE
- ACM Member
- ISCA Member
- IET

Seminar/Conference/Symposia /Workshops Organised

- **Organizer and Convener of IOP Indo-Turkey International Conference on International Conference on Computational Intelligence and Data Analytics, Online Mode held on 24th October 2020.**
- **Convener of 1st International Research Conference on Intelligent Communication and Computational Research at PIT Rajpura, Punjab held on 03rd Feb 2019.**

Countries Visited

* Brazil

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Invited Lectures/Talks/Chair/Co-Chair in Seminar/Conference/Symposia /Workshops

- EQIP-III sponsored Workshop on “Machine Learning: Practical Approach for beginners” at Global Group, Jammu, India.
Topic: Overview of Python Basics
Aug. 04-10, 2019
- FDP on Artificial Intelligence and Machine learning using Python at Lovely Professional University, India.
Topic: Introduction to Python and its basics
Feb. 20, 2020
- FDP on Artificial Intelligence & Data Analytics using MATLAB at Cambridge School, Punjab, India.
Topic: Overview of MATLAB Basics
June. 20-21, 2020
- National Workshop on "Machine Learning and IOT" at JIMS Engineering Management Technical Campus, Gr. Noida, India.
Topic: Particle Swarm Optimization and its applications
Nov. 05, 2019

➤ FDP on "Optimization Techniques and applications" at Kamala Nehru College for WOrmen, Phagwara, India.

June 22, 2018

➤ Workshop on Deep Learning and its Applications at NIT Jalandhar, India.

Topic: Programming and Transfer learning in Deep Learning

Dec. 26, 2019

➤ TEQIP-III sponsored FDP on "Research Methodology and LaTeX" at Lovely Professional University, India.

Topic: Research Paper Writing - Tools and Techniques

October. 06-08, 2018

➤ TEQIP-III sponsored FDP on "Explainable AI at Govt. Engineering College, Punjab, India.

Topic: Overview of Explainable Techniques

Additional Information (If Any)