

## Dr. Uday Pratap Singh

B.Sc., M.Sc. (Mathematics & Statistics) (Gold Medalist)  
M.Sc. (Mathematics & Computing)-IITG, NET(CSIR),  
Ph.D. (Computer Science)

Associate Professor

School of Mathematics

Shri Mata Vaishno Devi University, Katra (J&K)



### A BRIEF BIOGRAPHICAL SKETCH

**Dr. Uday Pratap Singh**, was born on February 6, 1979 in Sultanpur, U.P., India. Dr. Singh graduated in Mathematics from Dr. Ram Manohar Lohiya (Awadh) University, Faizabad (U.P.) in 1998. He obtained his first M.Sc. degree in Mathematics & Statistics (Gold Medalist) in 2000, from Dr. Ram Manohar Lohiya (Awadh) University, Faizabad, U.P. and Second M.Sc. degree in Mathematics & Computing from *Indian Institute of Technology, Guwahati*. He has also qualified CSIR (NET) and later he received his Ph.D. Degree in Computer Science from Barkatullah University, Bhopal, in 2013. He is currently working as an Associate Professor in the School of Mathematics, Shri Mata Vaishno Devi University, Katra, India. Dr. Singh has published/presented about 108 research papers in reputed International/National Journals and Conferences, 02 Books and 16 Book Chapters on Nonlinear Dynamics, Soft Computing and Image Processing etc. Dr. Singh also organized FDP, International/National Conferences and Workshops. His area of research includes Nature Inspired Algorithms, Soft Computing, Intelligent Control Systems, Non-linear Dynamical Systems and Image Processing etc. He is managing editor, associate editor and reviewer in various reputed journals and conferences. He is a life member of the Computer Society of India (CSI), Bharata Ganita Parishad (BGP) and IAENG.

#### **Educational Qualification:**

S. No.	Qualification	Division	University/Institution
01.	High School	I	U P Board
02.	Intermediate	II	U P Board
03.	B.Sc. (PCM)	I	Dr. RML University Faizabad
04.	M.Sc. (Gold Medalist) (Mathematics & Statistics)	I	Dr. RML University Faizabad
05.	M.Sc. (Mathematics & Computing)	I	IIT Guwahati
06.	CSIR (NET)	-----	CSIR
07.	Ph.D.	-----	Barkatullah University, Bhopal

**Teaching Experience:**

Name of Institution	Position	From	To	Total Years	Basic Pay & Pay Scale with AGP
RRPG College Amethi, Sultanpur	Lecturer	01 Sep-2003	31 May-2006	02years 09 months	Rs. 8000.00 (Fix)
LNCT- Bhopal (M.P.) (An AICTE approved Engg. College)	Assistant Professor	08 July-2008	22 April-2015	06 years 09 months	Rs.15600-39100 with AGP 6000
Madhav Institute of Technology and Science, Gwalior (M.P.)	Assistant Professor	23 April-2015	11 August 2018	03 year 04 months	Rs.15600-39100 with AGP 6000
Shri Mata Vaishno Devi University, Katra (J&K)	Associate Professor	17 Aug. 2018	Till Date	-----	Rs. 1,31,400 (7 <sup>th</sup> Pay Scale)

**Area of Interest:**

- [1]. Theory of Computation
- [2]. Abstract Algebra
- [3]. Soft Computing
- [4]. Image Processing
- [5]. Nonlinear Dynamics

**Awards and Honors:**

- [1]. **Reviewer** of IEEE Transactions on Neural Systems & Rehabilitation Engineering
- [2]. **Reviewer** of International Journal of Fuzzy Systems, (Springer).
- [3]. **Reviewer** of IEEE Access Journal, (IEEE).
- [4]. **Reviewer** of Biomedical Research, (Allied Academies Journals).
- [5]. **Reviewer** of IGI Global (An International Publisher).
- [6]. **Expert Member**, of Union Public Service Commission (UPSC), New Delhi.
- [7]. **Managing Editor** of Pioneer Journal of Computer Science and Engineering Technology, ISSN: 2231-184X.
- [8]. **Managing Editor** of Oriental Journal of Mathematics, ISSN (Print): 0975-7740, ISSN (Online): 0975-7759.

- [9]. *Associate Editor* of National Journal of Engineering Science and Management, ISSN: 2249-0264.
- [10]. *Member of Editorial Board* of International Journal of Advanced Computer Research, ISSN: 2277-7970 (Online), ISSN: 2249-7277 (Print).
- [11]. **Key Note Speaker:** in Virtual online National Conference on Big Data and Intelligent Systems, organized by Lakshmi Narain College of Technology, Bhopal, 30 April, 2020.
- [12]. Delivered an Invited Talk: "**How to write good Research Paper**", in One Week FDP on Research Methodology using R & E Views. Organized by Faculty Development Centre, Shri Mata Vaishno Devi University, Katra, April 2019.
- [13]. Delivered an Invited Talk: "**Object Extraction and Matching from Complex Scene of Images**", in International Conference on Analysis and its Applications, Organized by Department of Mathematics, Jammu University (J&K), 16-18 December, 2019.
- [14]. Delivered an Invited Talk: "**Applications of Nature Inspired Optimization Techniques**," in Two Week Winter School for Engineering Stream organized by Faculty Development Centre, Shri Mata Vaishno Devi University, Katra, 16 Feb-01 March 2019.
- [15]. Delivered an Invited Talk: "**Convergence Analysis of PSO**", in One Week Faculty Development Program on Teaching Sciences and Mathematics organized by Faculty Development Centre, Shri Mata Vaishno Devi University, Katra, 21-25 Jan. 2019.
- [16]. Delivered an Invited Talk: "Nature Inspired Optimization Techniques," in National Conference organized by **BHARATA GANITA PARISAD** at Lucknow University, Lucknow, 10-11 Nov. 2018.
- [17]. Delivered an Invited Talk: "Sector Nonlinearity Based Fuzzy Model," in DST Sponsored National Conference on Fractional Calculus, Special Functions and Their Applications in Computer Science, organized by **Ramanujan Society of**

**Mathematics and Mathematical Sciences** at T.D.P.G. College, Jaunpur (U.P.), 10-12 Nov. 2018.

- [18]. Delivered an Invited Talk: "**Formal Language and Abstract Machines**," in DST Sponsored National workshop on Science Fare Creating Awareness, Interest, Motivation in Science and Mathematics For School Students and Teachers, organized by **Ramanujan Society of Mathematics and Mathematical Sciences** at T.D.P.G. College, Jaunpur (U.P.), 10-13 Nov. 2018.
- [19]. Delivered an Expert Lecture: "**Group Theory and Its Applications**," at Lakshmi Narain College of Technology, Bhopal, 22 Sep. 2017.
- [20]. Delivered an Expert Lecture: "**PoSET and Hasse Diagram**," at IES Engineering College, Bhopal, 22 Sep. 2017.
- [21]. Delivered an Expert Lecture: "**Finite Field and It's Applications**," at IES Engineering College, Bhopal, 23 Sep. 2017.
- [22]. Delivered an Invited Talk: "**ImageProcessing: A Mathematical Approach**," in National Conference on Emerging Trends and Technology, LNCT, Bhopal, 2016.
- [23]. Delivered an Invited Talk: "**Object Extraction Using Low Level Features**," in National Conference on Emerging Trends and Technology, LNCT, Bhopal, 2016.
- [24]. Delivered an Invited Talk: "**Formal Language and Automata Theory**," in National Conference on Emerging Trends and Technology, LNCT, Bhopal, 2015.
- [25]. Delivered an Invited Talk: "**Algorithmic Analysis and Complexity Theory**," in National Conference on Emerging Trends and Technology, LNCT, Bhopal, 2015.
- [26]. **Best Faculty Award** for Analysis and Design of Algorithm, by **SRIJAN-2014** at Ravindra Bhavan, Bhopal.
- [27]. Delivered an Expert Lecture: "**Finite Basis Problem and Finite Field and its applications in Computer Science**" at Madhav Institute of Technology and Science, Gwalior (M.P.), from 12-14 April 2011.
- [28]. Delivered an Expert Lecture: "**Theory of Computation**" at Madhav Institute of Technology and Science, Gwalior (M.P.), from 13-14 August 2010.

- [29]. Received Letter of Appreciation for *National Conference on Recent Trends in Soft Computing and Network, 26-27 March-2010*, work as Co-Coordinator, at Lakshmi Narain College of Technology Bhopal, M.P.
- [30]. **Best Paper Award** at *VNS Institute of Technology*, Bhopal in **NCETT March-2010**.
- [31]. **Best Paper Award** at *All Saints College of Technology, Bhopal* in 6<sup>th</sup> National Level Technical Symposium, **Vision Tech-2009**.
- [32]. Received Letter of Appreciation for *Planet Engineer-2009* (A National Level Technical Mega Event), and work as Co-Coordinator, Lakshmi Narain College of Technology Bhopal, M.P.
- [33]. Delivered an Invited talk: **“Finite Difference Method”** AICTE sponsored staff development program on “Manufacturing Automation and Mechatronics” 6<sup>th</sup> -18<sup>th</sup> July 2009 at Samrat Ashok Technological Institute, Vidisha (M.P.).
- [34]. Delivered an Invited talk: **“Applications of MATLAB in Numerical Methods”** ISTE and MPCST sponsored staff development program on “Applications of MATLAB for Engineers” July 2009.

**Academic and Administrative Works:**

- [1]. **Chairman** of School Research Committee (SRC) of School of Mathematics
- [2]. **Vice-Chairman** of Board of Study (BoS) of School of Mathematics
- [3]. **Joint Warden, Basohli Hostel**, at Shri Mata Vaishno Devi University, Katra.
- [4]. Member of **ERP Committee** at Shri Mata Vaishno Devi University, Katra.
- [5]. Member of **Examination Reforms Committee (AICTE recommendations /guidelines)** at Shri Mata Vaishno Devi University, Katra.
- [6]. Member of **House Allotment Committee** at Shri Mata Vaishno Devi University, Katra.
- [7]. Member of **Review and Performance of Housekeeping Committee** at Shri Mata Vaishno Devi University, Katra.
- [8]. Member of **BOS**, Department of Applied Mathematics, MITS Gwalior.

- [9]. Member of **Scrutiny Committee** for Teaching and Non-Teaching Post at MITS Gwalior.
- [10]. Work as **Warden, Hostel No.02**, at Madhav Institute of Technology and Science, Gwalior.
- [11]. Appointed as Departmental **NSS Coordinator** at Madhav Institute of Technology and Science, Gwalior, M.P.
- [12]. Appointed as Departmental **SWAYAM** course Coordinator at Madhav Institute of Technology and Science, Gwalior, M.P.
- [13]. Appointed as Departmental **MOODLE** Coordinator at Madhav Institute of Technology and Science, Gwalior, M.P.
- [14]. Appointed as Departmental **Web Coordinator** at Madhav Institute of Technology and Science, Gwalior, M.P.
- [15]. Appointed as Departmental Coordinator for the online program associated with **IIT Bombay**, at Madhav Institute of Technology and Science, Gwalior, M.P.
- [16]. Class coordinator of **BE-I<sup>st</sup> Year**, (Information Technology, Chemical Engineering, Electronics and Telecommunication and Biotechnology) at Madhav Institute of Technology and Science, Gwalior, M.P.
- [17]. Mentor of **BE-I<sup>st</sup> Year**, (Backlog Students) at Madhav Institute of Technology and Science, Gwalior, M.P.
- [18]. **Group Leader of Anti-Ragging Duties**, at Madhav Institute of Technology and Science, Gwalior, M.P.
- [19]. Member of **BE-I<sup>st</sup> Year**, Time Table Committee at Madhav Institute of Technology and Science, Gwalior, M.P.

**MOOCs Certified Courses:**

- [1]. Engineering Calculus and Differential Equations (HKU11x):, University of Hong Kong.
- [2]. Linear Algebra-Foundations to Frontiers (UT.5.05x):, The University of Texas.

- [3]. Modern Algebra, National Programme on Technology Enhanced Learning (NPTEL) certificate, offered by **IIT Kanpur (Prof. Manindra Agarwal, Instructor), Secured First Rank in this Course.**
- [4]. MATLAB Programming for Numerical Computation, NPTEL Course offered by IIT Madras.
- [5]. NBA Accreditation and Teaching-Learning in Engineering, NPTEL Course offered by IISc Bangalore.

### Computer Skills:

- [1]. **Programming Languages:** C, C++.
- [2]. **Operating Systems:** Windows 8, Windows 7, Windows XP, Windows vista.
- [3]. **Software Packages:** MATLAB, LaTeX, Maple and Mathematica.

### Training Programs/Workshops/Conferences/Summer/Winter School Organized etc:

S.No.	Month & Year	Name of Institute /University	Convener/Coordinator/ Co-coordinator/ Organizing Secretary	Name of the Program
01.	26-27 March 2010	Lakshmi Narayan College of Technology, Bhopal	<b>Co-Coordinator-</b> National Conference RTSCN	Recent Trends in Soft Computing and Networks
02.	08 Nov. 2014	Lakshmi Narayan College of Technology, Bhopal	<b>Organizing Secretary-</b> IEEE International Conference	Computational Intelligence and Computer Networks
03.	25-26 Oct. 2018	Shri Mata Vaishno Devi University, Katra	<b>Co-coordinator-</b> IEEE International Conference ICRTAET (SMVDU-TBIC & TEQIP-III) Sponsored	5 <sup>th</sup> Recents Trends and Advancements in Engg. and Technology (ICRTAET)
04.	21-25 Jan. 2019	Shri Mata Vaishno Devi University, Katra	<b>Coordinator-</b> One Week FDP (MHRD Sponsored)	Teaching Sciences and Mathematics
05.	25-26 Oct. 2018	Shri Mata Vaishno Devi University, Katra	<b>Co-coordinator-</b> IEEE International Conference ICRTAET; Sponsored by (SMVDU-TBIC & TEQIP-III)	6 <sup>th</sup> Recents Trends and Advancements in Engg. and Technology (ICRTAET)

07.	13-14 Dec. 2019	Shri Mata Vaishno Devi University, Katra	<b>Convener-</b> Two days' National Conference	Recent Trends in Mathematical Sciences-2019
08.	19-20 March 2020 <i>(Date Postpo ned)</i>	Shri Mata Vaishno Devi University, Katra	Two days' Workshop Sponsored by J&K Sci., & Tech.	Works of Srinivasa Ramanujans

**Workshops /Training Programs/Summer/Winter School Attended:**

S.No.	Month & Year	Institute /Industry	Sponsored by	Name of the Course
01.	Dec. 2008	Sardar Vallabhbhai National Institute of Technology (SVNIT) Surat, 2008	AICTE Sponsored Staff Development Programme	Applications of Mathematical Sciences and Soft Computing
02.	July 2009	Banaras Hindu University (BHU), Varanasi, 2009	DST Sponsored National Workshop Cum Training Prog.	Advanced Numerical Techniques and Applications
03.	July 2009	Jai Narain College of Technology, Bhopal, 2009	ISTE Approved Short Term Training Programme	Applications of MATLAB in Science and Technology
04.	Feb. 2010	VNS Institute of Technology, Bhopal, 2010.	AICTE Sponsored Staff Development Programme	Recent Trends and Practices in Data Mining and Data Warehousing Technique
05.	July 2010	Truba Institute of Engineering and Information Technology, Bhopal	Indian Society for Technical Education (ISTE) and Wipro	Mission 10X
06.	Dec. 2011	Madhav Institute of Technology and Science, Gwalior	AICTE Sponsored Staff Development Programme	Soft Computing Tech. for Improvement of Processes and Systems in Chemical Engg.
07.	Jan. 2012	Lakshmi Narain College of Technology, Bhopal	Tata Consultancy Services	Data Warehousing



08.	Jan. 2013	Maulana Azad National Institute of Technology (MANIT), Bhopal	TEQIP-II	Intelligent Computing Techniques in Data Mining
09.	May 2013	Maulana Azad National Institute of Technology (MANIT), Bhopal	TEQIP-II	Workshop on Theory and Practice in Natural Language Processing
10.	June 2013	Rajiv Gandhi Proudyogiki Vishwavidyalaya, M.P.	AICTE Short Term Training Program Under TEQIP-II	Wireless Digital Communication
11.	Feb. 2014	Lakshmi Narain College of Technology, Bhopal	Vedisoft Academy, Bhopal	Linux Training Workshop
12.	Jan. 2015	EDI Ahemdabad and CRO, Rolta Incubation Centre MANIT, Bhopal	DST, Govt. of India and NSTEDB	FDP on Entrepreneurship
13.	Sep. 2015	Madhav Institute of Technology and Science, Gwalior, M.P.	DTE, Govt. of Madhya Pradesh	Research Methodology in Entrepreneurship Management
14.	14-15 Oct 2015	Madhav Institute of Technology and Science, Gwalior, M.P.	TEQIP-II	National Workshop on Application of MATLAB in Electrical Engineering
15.	12-16 March 2018	Madhav Institute of Technology and Science, Gwalior, M.P.	TEQIP-III	Outcome Based Education
16.	03-07 Dec. 2018	IIM Trichy Professional Development Training under	TEQIP-III	Professional Development Training

**Ph.D. SUPERVISED (COMPLETED / ONGOING):**

S. No.	Name of Students	Title of Dissertation/Thesis	Status
1.	K. Deshmukh	Object Retrieval and Matching of Content Based Images Using Different Graphical Models	Completed

2.	S.S. Chouhan	Plant Leaves Disease Segmentation and Classification using Soft Computing Approaches	Submitted
3.	J.P. Singh	Multi-Gait Occlusion Reconstruction and Identification using Hybrid-NN	Submitted
4.	Gourav Kumar	Stock Market Forecasting using Computational Intelligence Techniques (Tentative)	Ongoing
5.	Swati Jasrotia	Functional Analysis (Tentative)	Ongoing
6.	Rahul Kumar	Intelligent Control of Nonlinear Discrete-Time Strict Feedback Systems (Tentative)	Ongoing
7.	Arun Bali	Approximation of Non-autonomous Stochastic Systems Using Soft Computing Approach (Tentative)	Ongoing

#### RESEARCH GUIDANCE: PG

S. No.	Name of Students	Title of Dissertation/Thesis	Status
5.	K. Chopra	Image Authentication Using Slepian Wolf Coding	Completed
6.	P. Srivastava	Noise Removal Using First Order Neighbourhood Mean Filter	Completed
7.	R.K. Sharma	Face Detection and Matching using Dynamic Region Merging	Completed
8.	M. Verma	Image Compression using Discrete Wavelet Transform and JPEG with Arithmetic Coding	Completed
9.	G S Chandel	Improve Efficiency of FP-Growth Tree using Database Projection for Dynamic Dataset	Completed
10.	N. Mishra	Medical Image Registration Using Genetic Algorithm	Completed
11.	R. Gupta	Video Segmentation using k-mean Algorithm on Moving Sliding Window	Completed
12.	G S Dhakad	Image segmentation using signed pressure force function based active contour models	Completed
13.	Rushali and Pooja Devi	Convergence Analysis of Particle Swarm Optimization	Completed
14.	R. Sharma and Twinkle Gandral	Convergence Analysis of Particle Swarm Optimization	Completed
15.	Anuradha and Sakshi Sharma	Study of Non-Linear Dynamical Systems	Ongoing
16.	Poonam Kumari, Simran and Aarti	Cryptography	Ongoing

## **RESEARCH PUBLICATIONS:**

### **A1: Books:**

- [1] **Uday Pratap Singh**, V. Sakhre, “Reactive Distillation Advanced Control Using Neural Networks,” **Publisher:** De Gruyter (Coming Soon).
- [2] **Uday Pratap Singh**, S. Jain and Michael Sipser, “Theory of Computation (RGTU), 2/e” **Publisher: Cengage Learning, ISBN:9788131514771.**
- [3] **Uday Pratap Singh**, A. Tiwari and R. K. Singh, “Soft Computing-Based Nonlinear Control Systems Design”, **Publisher: IGI Global, ISBN:9781522535317, DOI: 10.4018/978-1-5225-3531-7, Feb. 2018.**

### **A2: Book Chapters:**

- [4] **Uday Pratap Singh**, S. Jain, M. Parmar and R. K. Singh, “Modified Differential Evolution Algorithm Based Neural Network for Nonlinear Discrete Time System”, Recent Developments in Intelligent Communication Applications (**IGI Global**), (**SCOPUS**), **Chapter:16, pp.397-420, 2016, ISBN:9781522517856.**
- [5] D. Dubey, D. Dubey and **Uday Pratap Singh**, “Performance of Service-Oriented Architecture (SOA): Medical Image Systems for Chronic diseases”, Exploring Enterprise Service Bus in the Service-Oriented Architecture Paradigm(**IGI Global**), (**SCOPUS**), **Chapter: 20, pp.327-343, 2016, ISBN:9781522521570.**
- [6] **Uday Pratap Singh** and S. Jain, “Object Extraction Using Topological Models from Complex Scene Image”, Advanced Concepts in Real-Time Image and Video Processing, (**IGI Global**), **Chapter: 13,pp.335-357,2017, ISBN:9781522528487.**
- [7] **Uday Pratap Singh**, S. Jain, A. Tiwari and R.K. Singh, “Nature Inspired Based Adaptive Neural Network Approximation for Uncertain System”, Emergent Research on the Application of Optimization Algorithms, (**IGI Global**), **Chapter: 19, pp. 439-461, 2017, ISBN: 9781522529903.**
- [8] **Uday Pratap Singh**, S. Jain, D. K. Jain and R.K. Singh, “An Improved RBFNN Controller for a Class of Nonlinear Discrete-Time Systems with Bounded Disturbance”, Emergent Research on the Application of Optimization Algorithms, (**IGI Global**), **Chapter: 28, pp. 439-461, 2017, ISBN: 9781522529903.**

- [9] B. Sowkartika, A. Tiwari and **Uday Pratap Singh**, “Utility and Significance of Vague Set Theory and Advanced Optimization Mechanisms for Uncertainty Management”, (Approved) Soft Computing-Based Nonlinear Control Systems Design.(**IGI Global**), **Chapter:10, pp. 191-219, 2018, ISBN: 9781522535317, DOI: 10.4018/978-1-5225-3531-7.ch010.**
- [10] S. S. Chauhan, U. Sharma and **Uday Pratap Singh**, “Soft Computing Approaches for Image Segmentation”, (Approved),Soft Computing-Based Nonlinear Control Systems Design. (**IGI Global**), **Chapter: 14, pp. 286-310, 2018, ISBN: 9781522535317, DOI: 10.4018/978-1-5225-3531-7.ch014.**
- [11] **Uday Pratap Singh**, S. Jain, D. Dubey and R.K. Singh, “Momentum and Resilient Based Level Set for Medical Image Segmentation”, (Approved) Intelligent Multidimensional Data and Image Processing. (**IGI Global**), **Chapter: 15, pp. 311-342, 2018, ISBN: 9781522535317, DOI: 10.4018/978-1-5225-3531-7.ch015.**
- [12] S. Agarwal, R.K. Singh and **Uday Pratap Singh**, “Fuzzy Counter Propagation Network for Free Hand Sketches Based Image Retrieval”, Soft Computing: Theories and Applications (**Springer, SCOPUS Index**), Bundelkhand University Jhansi (U.P.), 22-24 Dec. 2017.
- [13] J S Kumre, P. Gupta, **Uday Pratap Singh** and Rajeew Kumar Singh, “An Efficient Contrast Enhancement Technique Based on Firefly Optimization”, Soft Computing: Theories and Applications (**Springer SCOPUS Index**), Bundelkhand University Jhansi (U.P.), 22-24 Dec. 2017.
- [14] J.S. Kumare, P. Gupta, **Uday Pratap Singh** and R.K. Singh, “An Efficient Brightness preserving Contrast enhancement technique using Discrete wavelet transform and Singular value decomposition wavelet transform and Singular value decomposition", Microelectronics, Computing & Communication Systems (**MCCS-2017, Springer SCOPUS Index**), 13-14 May, Ranchi.
- [15] R.K. Singh, S. Agarwal, **Uday Pratap Singh** and S. Jain, "Intelligent Image Retrieval via Deep Learning Techniques", Deep Learning for Image Processing

Applications, IOS Press, 2017, (**SCOPUS Index**) DOI: 10.3233/978-1-61499-822-8-68.

- [16] P. Agarwal, A. Tiwari and **Uday Pratap Singh**, "An Innovative Design of RF Energy Harvester for Wireless Sensor Devices", Soft Computing-Based Nonlinear Control Systems Design.(**IGI Global**), **Chapter:15, pp. 311-342, 2018, ISBN: 9781522535317, DOI: 10.4018/978-1-5225-3531-7.ch015.**
- [17] J.S. Kumare, P. Gupta, **Uday Pratap Singh** and R.K. Singh "An Efficient Brightness preserving Contrast enhancement technique using Discrete wavelet transform and Singular value decomposition wavelet transform and Singular value decomposition", Microelectronics, Computing & Communication Systems (**MCCS-2019, Springer SCOPUS Index**), 13-14 May, Ranchi.
- [18] S. Agarwal, R.K. Singh and **Uday Pratap Singh** "Fuzzy Counter Propagation Network for Freehand Sketches-Based Image Retrieval" Soft Computing: Theories and Applications, Advances in Intelligent Systems and Computing, DOI.: 10.1007/978-981-13-0589-4-17, **2019 Springer SCOPUS Index**), 22-24 Dec, Jhansi.
- [19] P. Gupta, J.S. Kumare, **Uday Pratap Singh** and R.K. Singh "An Efficient Contrast Enhancement Technique Based on Firefly Optimization", Soft Computing: Theories and Applications, Advances in Intelligent Systems and Computing, DOI.: 10.1007/978-981-13-0589-4-18, **2019 Springer SCOPUS Index**), 22-24 Dec, Jhansi.

**B1: PATENT FILED / PUBLISHED:**

- [1]. Human Identification in Multi-gait Scenario, (Application No.: SMVDU/IPMSC/039).
- [2]. Device to Automatically Configure a Firewall and Monitor Network, (Application No.: 201921017918 A).

**B2: INTERNATIONAL / NATIONAL JOURNALS:**

- [1]. G. Kumar, S. Jain and **Uday Pratap Singh**, "Stock Market Forecasting Using Computational Intelligence: A Survey", Archives of Computational Methods in Engineering (**Springer**), **IF: 7.24, 2020, ISSN: 1886-1784.**

- [2]. S.S. Chouhan, **Uday Pratap Singh** and S. Jain, "Web facilitated Anthracnose disease segmentation from the leaf of Mango tree using Radial basis function (RBF) neural network," *Wireless Personal Communications (Springer)*, **IF: 0.929**, 2020 **ISSN: 1572-834X**, DOI: 10.1007/s11277-020-07279-1.
- [3]. J.P. Singh, S.Jain, S. Arora and **Uday Pratap Singh**, "A Survey of Behavioral Biometric Gait Recognition: Current Success and Future Perspectives", *Archives of Computational Methods in Engineering (Springer)*, **IF: 7.24**, 2020, **ISSN: 1886-1784**.
- [4]. J.P. Singh, S. Jain, S. Arora and **Uday Pratap Singh**, "Reconstruction of Occluded ROI in Multiperson Gait Based on Numerical Methods", *Multimedia Systems (Springer)*, **IF: 1.956**, 2019, **ISSN: 1432-1882**.
- [5]. **Uday Pratap Singh**, S.S. Chouhan, and S. Jain, "Image Segmentation Using Fuzzy Competitive Learning Based Counter Propagation Network", *Multimedia Tools and Applications (Springer)*, **IF: 2.10**, 2018, **ISSN: 1573-772**
- [5]. S.S. Chouhan, A. Koul, **Uday Pratap Singh**, and S. Jain, "A Database of Leaf Images: Practice Towards Plant Conservation with Plant Pathology", *MENDELEY DATASET*, <https://data.mendeley.com/datasets/hb74ynkjc/1>, 6<sup>th</sup> June 2019, DOI:10.17632/hb74ynkjc.1.
- [6]. J.P. Singh, S. Jain, S. Arora and Uday Pratap Singh, "Dataset for Human Recognition under **Multi-Gait** Scenario", *MENDELEY DATASET*, DOI: 10.17632/py4zw6g7xc.2, <https://data.mendeley.com/datasets/py4zw6g7xc/2>, 6<sup>th</sup> June 2019.
- [7]. **Uday Pratap Singh**, S.S. Chouhan, S. Jain and S. Jain, "Multilayer Convolution Neural Network for the Classification of Mango Leaves Infected by Anthracnose Disease" *IEEE Access (IEEE)*, **IF: 4.09**, DOI: 10.1109/ACCESS.2019.2907383, 2019, **ISSN: 1886-1784**
- [8]. **Uday Pratap Singh**, S. Jain, R.K. Gupta and A. Tiwari, "AFMBC For a Class of Nonlinear Discrete-Time Systems with Dead Zone", *International Journal of Fuzzy Systems (Springer)*, **IF: 3.10**, 2019, (Accepted), **ISSN: 2199-3211**.

- [9]. S.S. Chouhan, **Uday Pratap Singh** and S. Jain, "Application of Computer Vision in Plant Pathology: A Survey," Archives of Computational Methods in Engineering (**Springer**), **IF: 7.24**, (Accepted), 2019, **ISSN: 1886-1784**.
- [10]. S.S. Chouhan, A. Koul, and **Uday Pratap Singh**, "Detection of Foliar Galls from Alstonia Scholaris Leaves Using Fuzzy Based Function Neural Network Enabled with Internet of Things," Journal of Digital Imaging (**Springer**), **IF: 1.543**, 2019, DOI: 10.1007/s10278-019-00188-1, **ISSN: 1618-727X**.
- [11]. J.S. Rajput, A. K. Saxena and **Uday Pratap Singh**, "Application of Mathematical Modeling for the Prediction of NOx Concentration due to Vehicular Emission and Model Performance in Gwalior City, (M.P.)", International Journal of Innovative Science and Research Technology, Vol.4, No. 1, 2019, **ISSN: 2456-2165**.
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