## Dr. Parveen Singh

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Department of Computer Sciences,
Govt SPMR College,
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#### **SUMMARY**

Associate Professor, Department of Computer Science, Cluster University Jammu. Perused PhD (2015-2019) on UGC Teacher fellowship, as full time research Scholar at University of Jammu, J&K, worked in the Area of Data mining, on the topic "Analytic Study of Data Mining based model for public Health Care Management". Strong math background and 6+ years of experience in using predictive modeling, data processing, and data mining algorithms to solve challenging medical problems. Involved in Python open source community and passionate about deep reinforcement learning. Recently awarded (April 2021) DST (Department of science and technology) project titled "Creating a Dashboard of Survey on Usage of ICT and learning Management System during Covid-19 Pandemic in colleges and Universities in UT of Jammu and Kashmir".

#### **EDUCATION**

- Bachelor in Electronics, Jammu university (1993-1996)
- Masters in Computer Sciences, Jammu University.(1996-1999)
- Mphil in Computer sciences Periyar University.(2008-2010)
- PhD in Computer sciences, Jammu University.(2015-2019)

#### **EXPERIENCE**

- (2000-2015) Worked as Assistant Professor in, Higher education Department, Department of Computer Sciences.
- (2015-2019) Data Science researcher at University of Jammu, J&K, on UGC Fellowship Awarded by University Grant Commission (UGC), worked in the Area of Data mining, on the topic "Analytic Study of Data Mining based model for public Health Care Management".
- (2019-till date) Working as Associate Professor in, Higher education Department, Department of Computer Sciences.

### **SKILLS**

- Python, Hadoop, R, SQL
- Data cleansing, modeling, and mining
- Machine learning
- Predictive modeling
- Quantitative analysis
- Big data.

### **Project Under taken**

Department of Science and Technology, Government of Jammu and Kashmir, India, Minor project titled "Creating a Dashboard of Survey on Usage of ICT and learning Management System during Covid-19 Pandemic in colleges and Universities in UT of Jammu and Kashmir". (Ongoing).

#### Patent Filled /Published

- 1) IoT Based Framework to assure Secure Source to Destination Delivery or /Detecting the Presence /Theft/Loss Of Baggage At Airport Application Number :202111012680
- 2) AI based efficient Educational Toy for Marathi Speaking children having age less than 5 year Application Number:202111046120
- 3) Identification and Prevention for Malicious Transactions of authorised users in Cloud Environment using Machine Learning with IT Industry Compliance, Application Number:202111045452

## **Copyright**

- Copyright titled "Duo features with Hybrid met heuristics Deep Belief Network based Marathi Speech Recognition System" has been submitted with diary No: 224/2021-CO/SW. Author Parveen Singh and Ashok Sharma.
- 2. Enhanced Marathi Speech Recognition enabled by Grasshopper optimization based Recurrent Neural Network Dairy No: 16443/2021-CO/SW

# **Books Published**

- 1. "Software System Design", Publisher: Kalyani Publishers, ISBN 9789327265682
- "Computer Fundamentals and Information Technology", Publisher: Kalyani Publishers, ISBN 9789327245790
- "Software Engineering and System Analysis", Publisher: Kalyani Publishers, ISBN 9789327225006
- 4. "Computer Science and Application", Publisher: Kalyani Publishers, ISBN 9788127256265

- 5. "DOS WINDOWS &MS OFFICE", Publisher: Kalyani Publishers, ISBN 9788127268077
- 6. "Introduction to Computer", Publisher: Kalyani Publishers, ISBN 9788127267537
- 7. "Programming With C++", Publisher: Anand Technical Publishers, ISBN 9788192671840
- 8. "Operating System", Publisher: Anand Technical Publishers, ISBN 9788192671857
- 9. "Learning Programming with Visual Basic.net", Publisher: Anand Technical Publishers, ISBN 9788190970418

### Journals

1. Protein Structural Classes Prediction Based On Convolution Neural Network Classifier with Feature Selection of Hybrid PSO- FA Optimization Approach. European Journal of Molecular & Clinical Medicine, 7(10), 252-265. (2020)

### https://ejmcm.com/article\_3809.html

2. Hybrid of PSO-GSA based Clustering Approach for Predicting Structural Class Prediction using Random Forest Method. European Journal of Molecular & Clinical Medicine, 7(10), 17-32. (2020).

### https://ejmcm.com/pdf\_2839\_a44db401e7f5d87336186e3d716eeb94.html

- Performance analysis of fuzzy c-means (FCM) and possibilistic c-means algorithm (pcm) for protein sequence clustering, in 4th international conference on innovative computing and communication (ICICC 2021). <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3834105">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3834105</a>
- 4. Research Article Titled. "A new hybridization technique CNN-BILSTM based on Protein Structural Prediction "Communicated in Journal of progress in Artificial Intelligence in April 2021(Communicated)
- 5. Learning Management System for Virtual Teaching and Learning, World academics Journal of Engineering Sciences Vol.4, Issue.1, pp.05-07, March (2017).
- 6. International Journal Of Research In Electronics And Computer Engineering IJRECE VOL. 5 ISSUE 3 JULY.-SEPT. 2017 ISSN: 2393-9028 (PRINT) | ISSN: 2348-2281 (ONLINE) "An Insight into Public Healthcare Data of Punjab State: A Data Mining Approach"
- 7. Proceedings of the 11th INDIACom; INDIACom-2017; IEEE Conference ID: 40353 2017 4th International Conference on "Computing for Sustainable Global Development", 01st 03rd March, 2017 "Data mining based Tools and Techniques in Public Health Care management:-A study"
- 8. International Journal Of Research In Computer Science And Engineering IJRSRCSE Vol. 4 Issue 6 Dec 2016 Issn: 2320-7639 (Online) Using Data Mining To Forecasting Ipd And Opd In Himachal Pradesh: A Random Forest Algorithm Approach.
- 9. International Journal Of The Computer, The Internet And Management Ijcim Vol 19 Number Sp1 31 May 1 June 2011 ISSN 0858-7027 "India's E-Governance Initiatives And It's Impact"
- 10. Special Issue of International Journal of the Computer, the Internet and Management, Vol. 19 No. SP2, February, 2012 Development of M-Learning in India: Problems and Prospects

## **Book Chapter Published/Accepted**

Chapter Titled "Artificial Intelligence and machine Learning for healthcare Solutions" has been Accepted to be published in Scopus Indexed Book Titled Data Analytics in Bioinformatics: A Machine Learning Perspective" https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119785620.ch11 published by Scrivener Publishing, Wiley Group
Deep learning models for detection and diagnosis of Alzheimer's diseases "Communicated in IGI Global 2021Book Series Machine Learning and Data Analytics for Predicting, Managing, and Monitoring Disease in June in March 2021 <a href="https://www.igi-global.com/chapter/deep-learning-models-for-detection-and-diagnosis-of-alzheimers-disease/286249">https://www.igi-global.com/chapter/deep-learning-models-for-detection-and-diagnosis-of-alzheimers-disease/286249</a>
Cloud Computing And Its Services has been Accepted to be published in Scopus Indexed Book in September 2021
Virtual and Classroom Learning in Higher Education: A Guide to Effective Online Teaching" accepted in Bentham series [to be published]

## **International Workshop Attended**

- Attended 2016 International Training Workshop on Science & Technology Innovation System Construction and Management of University held in Shanghai Jiao Tong University from 17th to 28th Oct 2016, Shanghai, China.
- Attended 2015 International Training Workshop on BeiDou Technology and Its Applications held in Shanghai Jiao Tong University from 11th to 30th July 2015, Shanghai, China.
- Attended International Workshop and Technical Training Course on South-South Cooperation on Science and Technology to Address the Climate Change Oct. 19th-Nov. 5th, 2014, Kunming, China.
- Attended Asian productivity Organization (APO) workshop on Modern food transportation and regulation (Virtual Mode) hosted by development Academics of Philippines 13-15<sup>th</sup> July 2021.
- Attended ICTP International Centre for Theoretical Physics ,Italy workshop on Youth in High-Dimensions 15 18 June 2021 organised by Directors: Jean Francois Emmanuel Barbier (ICTP, Italy) Marylou Therese Gabrie (NYU, USA) Sebastian Goldt (SISSA, Italy) Marco Mondelli (Institute of Science and Technology, Austria).

## **Professional Experience**

- Three Patents, two copy rights Filled/Published.
- ❖ Certified, Research Based Pedagogical tools Trainer from Center Of Excellence in Science and Mathematics Education IISER Pune
- Awarded with "National Award" and one lacs Rupees Cash award by Govt of India, for popularization of Science among children's, 2014.

- ❖ Awarded with Govt. of J&K, "Science Innovative Teacher Award 2013"
- ❖ Awarded with Govt of Tamil Nadu ICTACT Best Techno Faculty Award 2016,
- ❖ Awarded with Bharat Gaurav Award 2016.
- ❖ Awarded with Govt. of J&K, GCW Parade, Higher Education Department "Best Teacher Award 2004"
- ❖ Awarded with Principal Citation for contribution towards Growth of Institution 2010.
- ❖ Awarded with Distinguished HOD award 2017 ,by Computer Society of India ,CSI, Mumbai Chapter.
- ❖ Awarded with Rotary International Nation Builder Award 2019
- ❖ Awarded with appreciation Certificate by state BJP president for being Covid19 warrior.
- ❖ Working as a Head of the Computer Science Department, Govt. College, and Higher education Department for last 16 years.
- ❖ Member of Jammu University, Academic council from 2006-2009.
- ❖ Member of Board of Studies, Jammu University since 2003 till date.
- ❖ Member Science and technology Council J&K, advising Government on Science related policies
- ❖ Awarded fellowship by Chinese Ministry of Science and technology to attend 2016 International Training Workshop on Science & Technology Innovation System Construction and Management of University held in Shanghai Jiao Tong University from 17<sup>th</sup> to 28<sup>th</sup> Oct 2016, Shanghai, China
- ❖ Awarded fellowship by Chinese Ministry of Science and technology to attend 2015 International Training Workshop on BeiDou Technology and Its Applications held in Shanghai Jiao Tong University from 11<sup>th</sup> to 30<sup>th</sup> July 2015, Shanghai, China
- ❖ Awarded fellowship by Chinese Ministry of Science and technology to attend 2014 International Workshop and Technical Training Course on South-South Cooperation on Science and Technology to Address the Climate Change Oct. 19<sup>th</sup>-Nov. 5<sup>th</sup>, 2014, Kunming, China
- ❖ Participated and presented papers in more than 8International, 9 National conferences and also participated in more than Six UGC/DST sponsored workshops.
- Co-authored 09 Books.
- ❖ 10 papers published in International journals.
- Organized more than 100 Workshops /Guest Lectures/awareness programs for the students fraternity on various topics, collaborating with industry for delivering latest technologies to the students

## **National Workshop Attended**

❖ Two week Faculty Development Program(FDP) Organized by Higher education Department ,Government of Jammu and Kashmir, "Information communication technology and modern education :The way forward" from 02<sup>nd</sup> march 2020 to 17<sup>th</sup> March 2020

- National Workshop on Embedded system Design for Internet of Things organized by Indian Institute of Technology Kanpur (IIT-Kanpur) from May 30<sup>th</sup> to June 03<sup>rd</sup> 2018.
- ❖ SPOC(Single Point Of Contact.)Felicitation workshop organized by Indian Institute of Technology Kanpur (IIT-Kanpur) on July 21 2018.
- Research methodology Workshop organized by Department of Computer Sciences, University of Jammu from 24-25<sup>th</sup> May 2018.
- ❖ 4<sup>th</sup> Annual National Workshop on Medical Imaging Technique ,Post Processing and clinical Applications organized by Indian Institute of Technology Delhi (IIT-Delhi) from 13<sup>th</sup> April to 16<sup>th</sup> April 2017.
- ❖ STEM Teacher Training workshop on research based pedagogical tools from 10<sup>th</sup> Dec -13<sup>th</sup> Dec 2017 organised by IISER Pune, at Indian Institute of Technology IIT Gandhinagar, Ahmedabad.
- ❖ Attended DST Sponsored workshop on "DST sponsored Workshop on "Green and Sustainable Technologies' held at TERI, New Delhi from 17<sup>TH</sup>Nov-21Nov 2013.
- ❖ Attended DST Sponsored workshop on "Decision Support Systems and Technologies" held at IIFT, New Delhi from 25<sup>TH</sup>-Feb-1<sup>st</sup> March 2013.
- ❖ Attended UGC Sponsored workshop on "Research Aspect in Information Security", held at Jawaharlal Nehru Technology University, Hyderabad from 23-01-12 to 28-01-2012.
- ❖ Attended 21 day Refresher Course in Computers organized by UGC at UGC ASC University of Jammu from 28-01-2010 to 17-02-2010.
- Participated in General Oriented Course Organized by <u>UGC</u> Academic Staff College Guru Nanak Dev University, Amritsar from 24-4-2006 to 20-09 -2006.
- ❖ Participated in Orientation workshop on "Multimedia E-Content Development" organized by consortium for educational communication, New Delhi held on March 26-27, 2006 at Kanya Maha Vidhalay, Jallandher.
- ❖ Attended 4 day workshop on faith based reconciliation from 6<sup>th</sup> of Jan to 9<sup>th</sup> Jan 2003 organized by Institute for Reconciliation (I I R) J&K in collaboration with International Centre for religion and diplomacy (ICRD) working for D.C.

# **Conferences Attended**

- ❖ Attended Asian productivity Organization (APO) Conference on promoting the circular economy in manufacturing through green Productivity(Virtual Mode) hosted by Directorate of Standard Metrology and Quality(STAMEQ)30<sup>TH</sup> July 2021.
- ❖ 53<sup>rd</sup> Annual convention 2020 on International conference on Digital Democracy-IT for Change

- organised by Computer Society of India in Collaboration with Springer from  $16^{\rm th}$  to  $18^{\rm th}$  January 2020 at KIIT , Bhubaneswar , India.
- ❖ Attended IEEE Sponsored Two day International conference on Computer research and development, INRIT2011, held at Thailand Bangkok, on 31<sup>st</sup> May 2011 to 1<sup>st</sup> June 2011 organized by the Royal institute of Thailand and presented Paper on "India's E-Governance Initiatives and it's Impact".
- ❖ Attended IEEE Sponsored Two day International conference on eLearning for Knowledge-Based Society, eLearning AP 2011, on 23<sup>rd</sup>-24<sup>th</sup> feb 2012\_held at Bangkok, Thailand and presented Paper on Development of M-learning in India: Problems and Prospects.
- ❖ Attended IEEE & CSI Sponsored 2009 IEEE International Conference on" Advance Competing IAC" 09" held on 6-7<sup>th</sup> March 2009, at Thapar University Patiala.
- ❖ Attended 6<sup>th</sup> International Conference on "Management in changing Global Scenario" held on 22<sup>nd</sup> May 2009 at Punjab College of Technical Education, Ludhiana and presented paper on "Management Perspective of E-Voting".
- Attended UGC sponsored Two days National Seminar on "Global Issues in Environment", held on 17<sup>th</sup> & 18<sup>th</sup> of Sept. 2010 at GCW Parade, Jammu, J&k and presented paper on "E-Waste -A Management Challenge in development Countries".
- ❖ Attended 5<sup>th</sup> International conference on "Down Trends Challenges in I.T" held on 22<sup>nd</sup> May 2009 at Punjab college of Technical Education Ludhiana and Presented paper on "knowledge based system using Heuristic".
- ❖ Attended Two days National I.T festival 2009, "Role of I.T in the development of the country: Present Scenario, future scope", held on 23-24<sup>th</sup> of Dec 2009 AT GCW Parade, Jammu, J&k and presented paper on "Mobile Broadband Technology and Services".
- ❖ Participated in <u>ICUTIT- 2011 International Conference</u> on "Upcoming Trends in IT-2011 at PCTE, Ludhiana and Presented Paper on "Impact of India's E-Governance Initiatives".
- ❖ Participated in Two day National Seminar on "Impact of I.T on society: Emerging trends & issues" organized by G.C.W Parade, Jammu,J&k on Feb 21,2009 and presented paper on "Cyber Terrorism".
- ❖ Participated in AICTE Sponsored Two day National Seminar on "Current Trends in Mobile Computing" held on 28<sup>th</sup> -29<sup>th</sup> Nov 2008 at Baba Ghulam Shah Bad shah, University, Rajouri, Jammu, J&K and Presented Paper on "Mobile security".
- ❖ Participated in UGC Sponsored Two day National Seminar on "Enhancing Educational opportunities for Economic Empowerment of Women", held on 24<sup>th</sup> -25<sup>th</sup> Nov.2006 at G.C.W Parade, Jammu,J&k.
- ❖ Participated in NAAC sponsored Two day National Seminar on "Higher Education-Evolving mechanism for Quality enhancement" held on 5<sup>th</sup> & 6<sup>th</sup> Aug 2005 at G.C.W Parade, Jammu,J&K.

- ❖ Participated in Two day National Seminar on "E-Learning in higher Education -A step forward" and Presented Paper on "Concept of E- Learning in higher Education" on 27<sup>th</sup> & 28<sup>th</sup> May 2005 held at GCW Parade, Jammu, J&k.
- ❖ Participated in Two day National IT festival 2005 held on 29<sup>th</sup> & 30<sup>th</sup> Aug 2005 on the topic "IT Emerging Challenges & Opportunities", held at G.C.W Parade Jammu, J&K and presented paper on "E-Traco System".

## **Workshops Organized**

- Organising Secretary Employability skill training program -2020 held from 10<sup>th</sup> Feb 2020 to 22<sup>nd</sup> Feb 2020 organised by higher education department ,Govt Of Jammu and Kashmir ,held at Govt.SPMR College of Commerce.
- Organizing Member 15 Day Computer basic course workshop for college students held fom 10<sup>th</sup> of Jan-23<sup>rd</sup> Jan 2009 at GCW Parade
- Organizing Member 5 day's workshop on Open source operating system, Linux, Unix held from 15<sup>th</sup>-20<sup>th</sup> Jan 2007 at GCW Parade.
- Organizing Member 7 days computer awareness workshop held from 1-6 Jan 2006 at GCW Parade.
- Organizing Member 10 days Internet learning awareness workshop held from 8<sup>th</sup>-17<sup>th</sup> Dec 2006 at GCW Parade.
- Organizing Member Open group discussion on "Should higher education be privatized held on 11<sup>th</sup> feb 2006 at GCW Parade.
- Organizing Member 5 days workshop on "Hardware cum Software maintenance" from 25<sup>th</sup>-30<sup>th</sup> Aug 2005 held at GCW Parade.
- ❖ Organizing Member Two week advance workshop on Web Technologies held from 1<sup>st</sup>-13<sup>th</sup> Aug 2010 at GCW Parade.
- ❖ Organizing Member 5 day workshop on Computer network from 22<sup>nd</sup> to 26<sup>th</sup> April 2008 at GCW Parade.
- Organizing Member one week workshop on Advance software technology 1-7<sup>th</sup> August 2009 at GCW Parade.
- Organizing Member seven days workshop on learning Microsoft Suite from 1<sup>st</sup> feb-7<sup>th</sup> Feb 2008 at GCW Parade.
- Organizing Secretary two days workshop on Php held from 12<sup>th</sup>-13<sup>th</sup> sep 2011 at GCW Parade.
- ❖ Organizing Secretary one two days AIDS awareness compaign held on 8<sup>th</sup> dec 2011 at GCW Parade.
- ❖ Organizing Secretary one day Placement drive in collaboration with IBM held on 10<sup>th</sup> oct 2011 at GCW Parade.

- Organizing Secretary one day quiz program named "united mind" in collaboration with IIM Bangalore held on 9<sup>th</sup> Nov 2011 held at GCW.
- Organizing Secretary one day Motivational Talk on:" different Perspective regarding females "held on 18<sup>th</sup> Dec 2011 at GCW Parade
- Organizing Secretary UGC Sponsored 15 day "Faculty development workshop" held from 3<sup>rd</sup>-18<sup>th</sup> Nov 2011 at GCW Parade
- Organizing Secretary Two day employment test AMCAT in collaboration with Aspiring Mind held on 8<sup>th</sup> and 9<sup>th</sup> of Dec 2011 held at GCW
- Organizing Secretary one day MCA Mock test held in collaboration with Amar Ujala on 26<sup>th</sup> of Sept 2011 at GCW Parade.
- ❖ Organizing Secretary RTI awareness Seminar held on 21<sup>st</sup> oct 2011 at GCW Parade.
- Organizing Secretary SEBI Sponsored workshop named "Young Investors" held on 12<sup>th</sup> Nov 2011 at GCW Parade.
- Organizing Secretary One day national seminar emerging trends in IT held on 15th Jan 2012 at GCW Parade.
- ❖ Organizing Secretary MBA Mock test in collaboration with Times group held on 30<sup>th</sup> Niov 2011 at GCW Parade..
- Organizing Secretary UGC Sponsored 10 day computer awareness program named "Computer jyoti" from 5<sup>th</sup>-15<sup>th</sup> Aug 2011 at GCW Parade
- Organizing Secretary, "Principal Student meet" held at 4<sup>th</sup> Aug 2011 at GCW parade.

# **Affiliations**

- ❖ Life member Computer society of India, CSI.
- ❖ Member of IEEE.