



DR. UMESH GUPTA

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Plot Nos 8-11, TechZone II, Greater Noida 201310, UP, India.

EDUCATIONAL QUALIFICATION

Doctor of Philosophy (Ph.D) | *Computer Science & Engineering*

Sep. 2017 – Jan. 2022

National Institute of Technology, Arunachal Pradesh

CGPA: **8.25/10**

Thesis Title : Enhancement of Parallel and Non-Parallel Twin Hyperplane Based Learning Methods Using Robust Loss Functions.

Supervisor name: Dr. Deepak Gupta, NIT Arunachal Pradesh.

Master of Engineering (M.E.) | *Computer Science & Engineering (Gold Medalist)*

Aug. 2011 – Jul. 2013

National Institute of Technical Teacher's Training & Research, Chandigarh

CGPA: **8.5/10**

Thesis Title : Comparative Analysis of Target Tracking Algorithms in Infrared Imaging.

Supervisor name: Dr. Maitreyee Dutta, NITTTR Chandigarh.

Bachelor of Technology (B.Tech) | *Computer Science & Engineering*

Jul. 2004 – Jun. 2008

Dr. A.P.J. Abdul Kalam Technical University (formerly UPTU), Lucknow, U.P.

Percentage: **70.42%**

Project Title : Sugar Cane Factories and Report Generation System.

Supervisor name: Dr. Shashank Sahu, AKGEC Ghaziabad (UPTU).

WORK EXPERIENCE (TEACHING & RESEARCH: 11 YEARS / INDUSTRY: 1 YEARS)

Assistant Professor

Bennett University, The Times of India Group

Aug. 2021 – Till now

Greater Noida, U.P., India

Senior Research Fellow

NIT Arunachal Pradesh

Sep. 2019 – Present

Arunachal Pradesh, India

Junior Research Fellow

NIT Arunachal Pradesh

Sep. 2017 – Aug. 2019

Arunachal Pradesh, India

Assistant Professor

IMS Engineering College, Ghaziabad

Feb. 2015 – Aug. 2017

Uttar Pradesh, India

Assistant Professor

Meerut Institute of Technology, Meerut

Jul. 2013 – Jan. 2015

Uttar Pradesh, India

Senior Lecturer KNGD MODI Engineering College, Ghaziabad	Jul. 2010 – Jul. 2011 Uttar Pradesh, India
Trainee Engineer Ericsson India Limited, Gurugram	Jun. 2009 – Jun. 2010 Haryana, India
Lecturer KNGD MODI Engineering College, Ghaziabad	Sep. 2008 – May 2009 Uttar Pradesh, India

CERTIFIED EXAMS QUALIFIED

NVIDIA DLI Certificate Building Transformer-Based Natural Language Processing Applications	Apr. 2022 – May. 2022 Level: Advanced
NVIDIA DLI Certificate Fundamentals of Deep Learning	Apr. 2022 – May. 2022 Level: Basic
Introduction to Machine Learning Coursera-IBM, California, US	Jan. 2022 – Feb. 2022 Roll No: FXSUW2K6PH4R
Deep Learning-Part 1 Indian Institute of Technology, Madras	Jan. 2020 – Apr. 2020 Roll No.: NPTEL20CS50S1806676
Introduction to Soft Computing Indian Institute of Technology, Kharagpur	Jan. 2020 – Mar. 2020 Roll No.: NPTEL20CS17S1567072
Medical Image Analysis Indian Institute of Technology, Kharagpur	Feb. 2020 – Mar. 2020 Roll No.: NPTEL20EE40S1499677
Python for Data Science Indian Institute of Technology, Madras	Jan. 2020 – Feb. 2020 Roll No.: NPTEL20CS36S1188786
Introduction to Machine Learning Indian Institute of Technology, Kharagpur	Jul. 2019 – Sep. 2019 Roll No.: NPTEL19CS52S11730004
Machine Learning for Engineering & Science Applications Indian Institute of Technology, Madras	Jan. 2019 – Apr. 2019 Roll No.: NPTEL19CS14S51820003

JOURNAL PAPER

Journal Papers Details	(In Chronological order)
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SCI/SCIE/Scopus Indexed International Journals

1. **Umesh Gupta** and Deepak Gupta. "Regularized based implicit Lagrangian twin extreme learning machine in primal for pattern classification." **International Journal of Machine Learning and Cybernetics** 12, no. 5 (2021): 1311-1342, Springer. (SCI Impact Factor: 4.012)
2. **Umesh Gupta** and Deepak Gupta. "Least squares large margin distribution machine for regression." **Applied Intelligence** (2021): 1-36. Springer. (SCI Impact Factor: 5.086)
3. **Umesh Gupta** and Deepak Gupta. "On Regularization Based Twin Support Vector Regression with Huber Loss." **Neural Processing Letters** 53, no. 1 (2021): 459-515. Springer. (SCI Impact Factor: 2.908)
4. **Umesh Gupta** and Deepak Gupta. "Kernel-target Alignment Based Fuzzy Lagrangian Twin Bounded Support Vector Machine." **Int. J. of Uncertainty, Fuzziness & Knowledge-Based Systems (IJUFKS)** 29, no.5(2021):677-707. World Scientific Publishing Company. (SCI Impact Factor: 1.518)
5. Deepak Gupta and **Umesh Gupta**. "On robust asymmetric Lagrangian v-twin support vector regression using pinball loss function." **Applied Soft Computing** 102 (2021): 107099. Elsevier. (SCI Impact Factor: 6.725)
6. Deepak Gupta, Ambika Chaudhary, **Umesh Gupta**, Mukesh Prasad, and Priyanka Singh. "Computational approach to clinical diagnosis of diabetes disease: a comparative study." **Multimedia Tools and Applications** (2021): 1-26. Springer. (SCI Impact Factor: 2.757)

7. **Umesh Gupta** and Deepak Gupta. "An improved regularization based Lagrangian asymmetric v-twin support vector regression using pinball loss function." **Applied Intelligence** 49, no. 10 (2019): 3606-3627. Springer. (**SCI Impact Factor: 5.086**)
8. **Umesh Gupta** and Deepak Gupta. "functional iterative approach for twin bounded support vector machine with squared pinball loss (Spin-FITBSVM)." **Applied Intelligence**, Springer (Communicated). (**SCI Impact Factor: 5.086**)
9. **Umesh Gupta** and Deepak Gupta. "Bipolar fuzzy based least squares twin bounded support vector machine." **Fuzzy sets and Systems**, Elsevier. (Communicated). (**SCI Impact Factor: 3.343**)
10. **Umesh Gupta** and Deepak Gupta. "Least square of structural twin bounded support vector machine on class scatter." **Applied Intelligence**, Springer. (Communicated). (**SCI Impact Factor: 5.086**)
11. Deepak Gupta, **Umesh Gupta** and Hemang Jyoti Sarma. "Functional iterative approach for Universum based Primal Twin Bounded Support vector machine to EEG classification (FUPTBSVM)." **Multimedia Tools and Applications**, Springer. (Communicated). (**SCI Impact Factor: 2.757**)
12. Deepak Gupta, **Umesh Gupta** and Mukesh prasad. "Decision Support Kernelized Fuzzy based Twin Bounded Support Vector Machine on L2 Norm." **Pattern Recognition Letters**, Elsevier. (Communicated). (**SCI Impact Factor: 3.756**)
13. **Umesh Gupta** and Deepak Gupta. "An Efficient Implicit Lagrangian Twin Bounded Support Vector Machine." **International Journal of Advanced Intelligence Paradigms**, (2021): in press. Inderscience. (**Scopus Index**)
14. **Umesh Gupta** and Preetisudha Mehar. "Evaluation of Target Tracking Approaches using Infrared Imagery." **International Journal of Advanced Science and Technology**, (2019) no.28(3):284-292. Science and Engineering Research Support Society. (**Scopus Index**)
15. Akshat Pandey, Mohd. Moin Khan, and **Umesh Gupta**. "Carts (A Collaborative Shopping List Android App)." **International Research Journal of Engineering and Technology**, (2017) no.4(4):2781-2785. e-ISSN:2395-0056, p-ISSN: 2395-0072, Fast Track. (**SJ IF: 7.529**)
16. Ayushi Gahlot and **Umesh Gupta**. "Gaze-based Authentication in Cloud Computing." **International Journal of Computer Applications**, (2016) no.1:14-20. ISBN: 973-93-80892-43-1, ISSN 0975-8887, Foundation of Computer Science. (**Cite score: 0.835**)
17. **Umesh Gupta** and Maitreyee Dutta and Mahesh Vadhavaniya. "Analysis of Target Tracking In Thermal Imagery." **International Journal of Computer Applications**, (2013) no.71(16):34-41. ISBN: 973-93-80892-43-1, ISSN 0975-8887, Foundation of Computer Science. (**Cite score: 0.835**)

CONFERENCE / SYMPOSIUM PAPER

Conference Papers Details

International Conferences

1. **Umesh Gupta**, Deepak Gupta and Mukesh Prasad. "Kernel target alignment based fuzzy least square twin bounded support vector machine." In 2018 IEEE Symposium Series on Computational Intelligence (**SSCI**), IEEE, Bangalore, (2018). <https://doi.org/10.1109/SSCI.2018.8628903>. (**Scopus Index**)
2. Sapna Yadav, Richa Mishra and **Umesh Gupta**. "Performance evaluation of different versions of 2D Torus network." In 2015 International Conference on Advances in Computer Engineering and Applications (**ICACEA**), IEEE, Delhi, (2015):178-182. <https://doi.org/10.1109/ICACEA.2015.7164691>. (**Scopus Index**) -Award Best paper
3. **Umesh Gupta** and Maitreyee Dutta. "Comparative Analysis of Single Target Tracking Algorithms in IR Imaging." In 2014 International Conference on computer networks and information technology, NITTTR, Chandigarh, India, 20-21 Mar. (2014).
4. **Umesh Gupta**, Gulshan Soni and Nikhil Singh. "Intrusion Detection System For WSN: A Review." In 2013 IEEE International Conference on Advanced Research in Engineering and Tech-

nology (**ICARET**), K L University, Vaddeswaram, Andhra Pradesh, India, 8-9 Feb. (2013), ISBN:9781634392402, <https://www.academia.edu/42950372>.

5. Gulshan Soni, **Umesh Gupta** and Nikhil Singh. "Analysis of modified substitution encryption techniques." In 2013 IEEE International Conference on Advanced Research in Engineering and Technology (**ICARET**), K L University, Vaddeswaram, Andhra Pradesh, India, 8-9 Feb. (2013), ISBN:9781634392402, <https://d1wqtxts1xzle7.cloudfront.net/38643179>.
6. **Umesh Gupta**, Deepak Gupta and Umang Agarwal. "Analysis of Randomization based Approaches for Autism Spectrum Disorder" In "3rd International Conference on Machine Intelligence and Signal Processing (**MISP**) 2021." NIT Arunachal Pradesh, India, Lecture Notes in Electrical Engineering (LNEE), Springer, 23-25 Sep.(2021). (in press.)(**Scopus Index**)
7. Barenaya Bikash Hazarika, Deepak Gupta and **Umesh Gupta**. "Intuitionistic Fuzzy Kernel Random Vector Functional Link Classifier" In "4th International Conference on Machine Intelligence and Signal Processing (**MISP**) 2022." NIT Raipur, India, Lecture Notes in Electrical Engineering (LNEE), Springer, 12-14 Mar.(2022). (in press.)(**Scopus Index**)
8. Madhuri Gupta, Divya srivastava, Deepika pantola, and **Umesh Gupta**. "Brain Tumor Detection using Improved Otsu's Thresholding Method and Supervised Learning Techniques at Early Stage" In "2nd International Conference on Emerging Trends and Technologies on Intelligent Systems (**ETTIS**) 2022." C-DAC Noida, India, Advances in Intelligent Systems and Computing (AISC), Springer, 22-23 Mar.(2022). (in press.)(**Scopus Index**)
9. **Umesh Gupta**, Bishwajit Roy , Deepika pantola, and Madhuri Gupta. "Mental Stress Level Detection using LSTM for WESAD Dataset" In "3rd International Conference on Data Analytics Management (**ICDAM**) 2022." The Karkonosze University of Applied Sciences, Jelenia Gora, Poland, Europe, Lecture Notes on Networks and Systems series (LNNS), Springer, 25-26 Jun.(2022). (in press.)(**Scopus Index**)
10. Ashish Parihar, **Umesh Gupta**, Utkarsh Srivastava, Vishal Yadav and Vaibhav Trivedi. "Automated Machine Learning Deployment Using Open-Source CI/CD Tool" In "3rd International Conference on Data Analytics Management (**ICDAM**) 2022." The Karkonosze University of Applied Sciences, Jelenia Gora, Poland, Europe, Lecture Notes on Networks and Systems series (LNNS), Springer, 25-26 Jun.(2022). (in press.)(**Scopus Index**)

National Conferences

1. **Umesh Gupta** and Sapna Yadav. "A Study Paper on brief description of Communication Networks and the Overview of Next Generation Network (NGN) with the Emerging need of new Generation Network." In 2015 National Conference on computing technologies, NITTTR Chandigarh, India, 30- 31 Mar. (2015).
2. **Umesh Gupta**, Maitreyee Dutta and Mahesh Vadhvaniya. "Target Tracking in Infrared Imagery." In 2013 National Conference on Electrical system Energy Technology (ESET), NIT Hamirpur, Himachal Pradesh, India, 28-29 Jun. (2013).

BOOK CHAPTERS

Book Chapter Details

Book Chapters

1. **Umesh Gupta**, Deepika Pantola, Aditya Bhardwaj and Simarpreet Singh. "Next Generation Networks Enabled Technologies: Challenges and Applications." In: S. Perumal, M. Tabassum, Moolchand Sharma, and S. Mohanan (eds) under Book Series "Future Generation Information Systems", CRC Press, Taylor Francis Group (2022). (**Scopus Index**)
2. Shweta Singh, Aditya Bhardwaj, Ishan Budhiraja, **Umesh Gupta**, and Indrajeet Gupta. "Cloud-based Architecture for Effective Surveillance and Diagnosis, ." In: D.B.Rawat, L.K.Awasthi, V.E.Balas, and M. Kumar, and J.K. Samriya (eds) Convergence of Cloud with AI for Big Data Analytics: Foundations and Innovation. Wiley-Scrivener, pp.1-16, (2022)(**Scopus and web of science Index**)

3. **Umesh Gupta** and Preetisudha Meher. "Statistical Analysis of Target Tracking Algorithms in Thermal Imagery." In: Mallick P., Balas V., Bhoi A., Chae GS. (eds) Cognitive Informatics and Soft Computing. Advances in Intelligent Systems and Computing, vol 1040. Springer, Singapore, (2020). <https://doi.org/10.1007/978-981-15-1451-7-65>.(Scopus Index)
4. **Umesh Gupta** and Deepak Gupta. "Lagrangian twin-bounded support vector machine based on L2-norm." In: Kalita J., Balas V., Borah S., Pradhan R. (eds) Recent Developments in Machine Learning and Data Analytics. Advances in Intelligent Systems and Computing, vol 740. Springer, Singapore, (2019). <https://doi.org/10.1007/978-981-13-1280-9-40>.(Scopus Index)

PATENT

Patent Details

Indian Patent

1. **Umesh Gupta** et al. (2022). "Container Based Virtualization Framework for GIPS" **Patent no.: 202211022498**, Indian Patent, (2022). <https://ipindiaservices.gov.in/PublicSearch/PublicationSearch/>
2. **Umesh Gupta** et al. (2022). "A System Based On Deep Learning For Analyzing Delayed Enhancement Magnetic Resonance Imaging To Identify Covid 19 And Method Thereof" **Patent no.: 202211000000**, Indian Patent, (2022). <https://ipindiaservices.gov.in/PublicSearch/PublicationSearch/>

PROJECT GRANT

Project Details

Seed Grant

1. **Umesh Gupta**, Deepika Vatsa, Pawan Mishra and Deepali Atheaya (2022). "Smart healthcare-oriented online prediction of biological joint moment during multiple ambulation tasks", Seed Grant of Bennett University for 3 year with Amount Sanctioned 10.5 Lakh, Apr 8, 2022.

ACADEMIC AND RESEARCH INTEREST

SUBJECT TAUGHT

1. Statistical Machine Learning
2. Artificial Intelligence and Machine learning
3. Database Management System
4. Data structure using C

Research Interest

Machine learning: Binary Classification, Regression problem, Noise based learning, Loss function based learning, Iterative and Least square based approaches in learning.

INDUSTRIAL TRAINING / WORKSHOP / FDP

2007-2013:

Mobile computing (BSNL MRT), MATLAB (Mathworks India), IDES (NITH)

3

2014-2016:

BlueMix Enablement (IBM INDIA), CCNA (NITTTR CHD), MATLAB (ABES GZB), DATA STRUCTURE (IITD)

6

2017-2018:

Machine Learning and Data Analytics (NITAP), BIG DATA (NITAP), Optimization Techniques (IITG)

6

2019-2020:

Machine Learning (NITAP),Artificial Intelligence(ATAL Academy),Computational Intelligence(IITI& IEEE)

13

2021-2022:

Machine Learning (NEHU),Artificial Intelligence(ICT Academy),Summer and Winter School(IEEE)

10

ACHIEVEMENT

1. Delivered **Expert Talk** on Future Scope for Electrical Vehicles using Artificial Intelligence and Machine Learning at Satyabhama University, Chennai (Deemed to be university), 4 Mar. 2022
2. Delivered **Expert Talk** on Dig into Research Paper in Artificial intelligence" at IEEE Research Paper Workshop, Bennett University, Greater Noida, 12 Feb. 2022
3. **Session Chair** in Serb Sponsored 5-Days Workshop on Applied Artificial Intelligence and Natural Language Processing (AAINLP-2022),Bennett University, Greater Noida, 10 Mar. 2022
4. **Session Chair** in International Conference on Computational and Intelligent Data Science (ICIIDS-2022), organized by Guru Nanak Institute of Management, New Delhi in association with Universal Innovators,21 May 2022.
5. **Publicity Chair** in IEEE CIS Summer School on "Emerging Research Trends in Artificial Intelligence and Computational Intelligence" at National Institute of Technology Arunachal Pradesh, Oct. 2021
6. Certified as**Volunteer** in organizing the Hindi Pakhvada 2019 at NIT Arunachal Pradesh.
7. Certify as **organizing committee member** of workshop named MLBDI-2017 at NIT Arunachal Pradesh, 2017.
8. Awarded **First** Position in Speech Competition from SJVN Ltd., Arunachal Pradesh, 2017.
9. Recieved **Best Paper** in IEEE-ICACEA-2015 at IMSEC, Ghaziabad, 2015.
10. Recieved as **Outstanding Alumni Award** at NITTTR, Chandigarh, 2014.
11. Recieved **Gold medal** in Master of Engineering in NITTTR, Chandigarh and **Third** Position in Panjab university, Chandigarh, 2013.
12. **Presented** a paper entitled" Intrusion Detection System For WSN: A Review." at IEEE-ICARET, Guntur (A.P.) 2013.
13. Certified as**Volunteer** in organizing the National Seminar on ICT in Technical Education 2012 at NITTTR Chandigarh,2012.
14. **Particiapted** in the Cultural Prgramme on the 45 Annual Institute day at NITTTR Chandigarh, 2012.
15. Certified as**Volunteer** in organizing the National conference on ET in CE&IT 2012 at NITTTR Chandigarh,2012.
16. **Particiapted** in the Cultural Prgramme on the 44 Annual Institute day at NITTTR Chandigarh, 2011.
17. Awarded **Third** Position in Hindi Poetry Competition from AKGEC, Ghaziabad (U.P.), 2008.
18. Awarded **Third** Position in Hindi Essay Competition from AKGEC, Ghaziabad (U.P.), 2008.

ROLES AND RESPONSIBILITY

1. Worked as **Reviewer** in 2nd International Conference on Emerging Trends and Technologies on Intelligent Systems (**ETTIS**) 2022. C-DAC Noida.
2. Worked as **Reviewer** in 4th International Conference on Machine Learning and Signal Processing (MISP-2022) at NIT Raipur, India.
3. Worked as **Reviewer** in 3rd International Conference on Machine Learning and Intelligent Systems (MLIS 2021) at Xiamen, China.

4. Worked as **Reviewer** in 3rd International Conference on Machine Learning and Signal Processing (MISP-2021) at Arunachal Pradesh, India.
5. Worked as **Teaching assistant** in NIT Arunachal Pradesh, India.
6. Worked as **Summer Research Scholar** in IIT Delhi, India.
7. Worked as **Assistant Professor and Motivator** in Various Engineering college, India.
8. Worked as **Project mentor** in various Engineering college named IMSEC, MIT, KNGD MODI.
9. Worked as **Flying Squad** in UPTU University Examination.
10. Worked as **External Practical Examiner** in UPTU University Practical Examination.

MEMEBERSHIP

1. IEEE Professional Membership, Membership No.:- 94840294
2. Institute for Engineering Research and Publication (IFERP).
3. Universal Association of Computer and Electronics Engineers (UACEE), USA.
4. International Association of Engineers(IAENG), Hong Kong
5. Association for Computing Machinery Professional (ACM),Membership No.:- 9279346
6. CSTA Professional Membership (CSTA),Membership No.:- 983457935

INTERESTS

Poetry, Playing Chess, Music and Dance,and Essay.

OTHER ACADEMIC ACTIVITIES

- . **CodeChef Faculty Coordinator for CSE Dept.**
- . Content writing Faculty Coordinator for CSE Dept.
- . Course Coordinator of two subject for CSE Dept.
- . Faculty coordinator in the inaugural ceremony of centre of law and school of computer science engineering and technology.
- . Successfully completed 6 coding events of CodeChef student chapter on Competitive Programming, Sep 2021-May 2022.
- . First year Student Document Verification assigned by Registrar office of Bennett University
- . Mentoring of B. Tech First Year EB18 Batch

REFERENCES

Dr. Deepak Gupta	deepakjnu@gmail.com Assistant Professor, Dept. of CSE, NIT Arunachal Pradesh, India
Dr. Maitreyee Dutta	d_maitreyee@yahoo.co.in. Professor, Dept. of CSE, NITTTR, Chandigarh,India
Dr. C.Rama Krishna	rkc_97@yahoo.com. HoD and Professor,Dept. of CSE, NITTTR, Chandigarh, India)
Dr. Poonam Saini	poonamsaini@pec.edu.in Associate Professor, Dept. of CSE, PEC University, Chandigarh, India

DECLARATION

I hereby declare that all the above information is true to the best of my knowledge and belief.

Date: 31 May 2022

Current Place: Bennett University