

Dr. K. K. Mishra

Department of Computer Science Engineering
Motilal Nehru National Institute of Technology Allahabad
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EDUCATION

- Ph.D, Computer Science & Engineering, Motilal Nehru National Institute of Technology, Allahabad, 2013
- M.Tech., Computer Science, Uttar Pradesh Technical University, Lucknow, India, 2007.
- B.E., Computer Science & Engineering, Dr. B. R. Ambedkar University Agra, India, 2000.

EXPERIENCE

- June 2018-Present. **Assistant Professor.** Department of Computer Science & Engineering, Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India.
- August 2016-May 2018. **Visiting Assistant Professor.** Department of Mathematics and Computer Science, University of Missouri-St. Louis, USA (On leave from MNNIT Allahabad).
- 2009-July 2016. **Assistant Professor.** Department of Computer Science & Engineering, Motilal Nehru National Institute of Technology, Allahabad, India.
- 2007-09. **Reader.** Department of Computer Science & Engineering, Raja Balwant Singh Engineering College, Bichpuri, Agra, India.
- 2000-07. **Lecturer.** Department of Computer Science & Engineering, Raja Balwant Singh Engineering College, Bichpuri, Agra, India.

Research Interests

- Genetic Algorithm, Analysis of Algorithm, Automata Theory, Microprocessor, Multi-objective Optimization.

Publications

Paper as - Journal Articles

- [1] Anuj Chandila, Shailesh Tiwari, KK Mishra, and Akash Punhani. "Environmental Adaption Method: A Heuristic Approach for Optimization". In: *International Journal of Applied Metaheuristic Computing (IJAMC)* 10.1 (2019), pp. 107–131.
- [2] Divya Kumar and KK Mishra. "Multi-Objective Optimization using Co-Variance Guided Artificial Bee Colony." In: *Journal of Information Science & Engineering* 34.2 (2018).

- [3] Anupam Biswas, Bhaskar Biswas, Anoj Kumar, and KK Mishra. "Particle swarm optimisation with time varying cognitive avoidance component". In: *International Journal of Computational Science and Engineering* 16.1 (2018), pp. 27–41.
- [4] KK Mishra, HK Limbu, A Dhungana, IS Jha, and D Adhikari. "Thermodynamic, Structural, Surface and Transport Properties of In-Tl Liquid Alloy at Different Temperatures". In: *World Journal of Condensed Matter Physics* 8.03 (2018), p. 91.
- [5] Shivendra Shivani, Shailendra Tiwari, Krishn K Mishra, Zhigao Zheng, and Arun K Sangaiah. "Providing security and privacy to huge and vulnerable songs repository using visual cryptography". In: *Multimedia Tools and Applications* (2018), pp. 1–20.
- [6] Naveen Kumar, Shailesh Tiwari, Zhigao Zheng, Krishn K Mishra, and Arun Kumar Sangaiah. "An efficient and provably secure time-limited key management scheme for outsourced data". In: *Concurrency and Computation: Practice and Experience* 30.15 (2018), e4498.
- [7] Arjun Arora, Nitin Rakesh, and Krishn K Mishra. "Analysis of Safety Applications in VANET for LTE Based Network". In: *Networking Communication and Data Knowledge Engineering*. Springer, 2018, pp. 141–154.
- [8] Weina Wang and Krishn Kumar Mishra. "A novel stock trading prediction and recommendation system". In: *Multimedia Tools and Applications* 77.4 (2018), pp. 4203–4215.
- [9] Divya Kumar and KK Mishra. "Co-variance guided Artificial Bee Colony". In: *Applied Soft Computing* 70 (2018), pp. 86–107.
- [10] Krishn Kumar Mishra, Hemant Bisht, Tribhuvan Singh, and Victor Chang. "A Direction Aware Particle Swarm Optimization with Sensitive Swarm Leader". In: *Big Data Research* (2018).
- [11] Zhigao Zheng, Nitin Saxena, KK Mishra, and Arun Kumar Sangaiah. "Guided dynamic particle swarm optimization for optimizing digital image watermarking in industry applications". In: *Future Generation Computer Systems* (2018).
- [12] Ashish Tripathi, Nitin Saxena, KK Mishra, and Arun Kumar Misra. "A nature inspired hybrid optimisation algorithm for dynamic environment with real parameter encoding". In: *International Journal of Bio-Inspired Computation* 10.1 (2017), pp. 24–32.
- [13] KK Mishra. "Recent advancements in computer, communication and computational sciences." In: *Journal of Intelligent and Fuzzy Systems* 32.5 (2017), p. 3229.
- [14] Manisha Chahal, Sandeep Harit, Krishn K Mishra, Arun Kumar Sangaiah, and Zhigao Zheng. "A survey on software-defined networking in vehicular ad hoc networks: Challenges, applications and use cases". In: *Sustainable cities and society* 35 (2017), pp. 830–840.
- [15] Divya Kumar and KK Mishra. "Portfolio optimization using novel co-variance guided Artificial Bee Colony algorithm". In: *Swarm and Evolutionary Computation* 33 (2017), pp. 119–130.
- [16] Nitin Saxena and K. K. Mishra. "Improved Multi-Objective Particle Swarm Optimization Algorithm for Optimizing Watermark Strength in Color Image Watermarking". In: *Applied Intelligence* Preprint (2016). ISSN: 1573-7497.
- [17] Divya Kumar and K. K. Mishra. "Co-variance Guided Artificial Bee Colony". In: *Swarm and Evolutionary Computation* Preprint (2016). ISSN: 2210-6502.
- [18] Bhavna Sharma, Ravi Prakash, Shailesh Tiwari, and K. K. Mishra. "A Variant of Environmental Adaptation Method with Real Parameter Encoding and its Application in Economic Load Dispatch Problem". In: *Applied Intelligence* Preprint (2016). ISSN: 1573-7497.
- [19] K. K. Mishra, Ashish Tripathi, Nitin Saxena, and Shailesh Tiwari. "Evolution Based Memetic Algorithm and its application in software cost estimation". In: *Journal of Intelligent and Fuzzy Systems* Preprint (2016).

- [20] Divya Kumar and K. K. Mishra. "Multi-objective optimization using co-variance guided Artificial Bee Colony". In: *Journal of Information Science and Engineering* 1016-2364 (2016).
- [21] Ashish Tripathi, Nitin Saxena, Krishn Kumar Mishra, and Arun Kumar Misra. "A Nature Inspired Hybrid Optimization Algorithm for Dynamic Environment with Real Parameter Encoding". In: *International Journal of Bio-Inspired Computation* Preprint (2016).
- [22] Anupam Biswas, Bhaskar Biswas, Anoj Kumar and K. K. Mishra. "Particle Swarm Optimization with Time Varying Cognitive Avoidance Component". In: *International Journal of Computational Science and Engineering* (2016).
- [23] K. K. Mishra, Vivek Sharma, Shailesh Tiwari and A. K. Misra. "Auto Adjustive Differential Evolution Algorithm". In: *Journal of Multiple-Valued Logic and Soft Computing* Preprint (2016).
- [24] Prince Bhatia, K. K. Mishra and A .K. Misra. "An Approach to Software Cost Estimation by Improved - Time Variant Acceleration Coefficient based PSO". In: *Journal of Multiple-Valued Logic and Soft Computing* Preprint (2016).
- [25] Prince Bhatia, Krishn Kumar Mishra, and Arun Kumar Misra. "An Approach to Software Cost Estimation by Improved-Time Variant Acceleration Coefficient Based PSO." In: *Journal of Multiple-Valued Logic & Soft Computing* 27.1 (2016).
- [26] Prince Bhatia, KK Mishra, Divya Kumar and Anoj Kumar. "An Improved-Time Varying Acceleration Coefficient Based PSO." In: *Journal of Multiple-Valued Logic & Soft Computing* 26 (2016).
- [27] Ashish Tripathi, Nitin Saxena, Krishn Kumar Mishra and Arun Kumar Misra. "An Environmental Adaption Method with real parameter encoding for dynamic environment". In: *Journal of Intelligent & Fuzzy Systems* 151678 (2015), pp. 1–13.
- [28] KK Mishra, Shailesh Tiwari, and Arun Kumar Misra. "Improved environmental adaption method and its application in test case generation". In: *Journal of Intelligent & Fuzzy Systems* 27.5 (2014), pp. 2305–2317.
- [29] KK Mishra, AK Misra, Peter Mueller, Gregorio Martinez Perez, Sanjiv K Bhatia, and Yong Wang. "Recent Advancements in Computer & Software Technology". In: *The Scientific World Journal* 2014 (2014).
- [30] Krishn Kumar Mishra, Anoj Kumar, and Arun Kumar Misra. "A novel approach for minimizing and prioritizing test suite". In: *Engineering Science Letters* 2014 (2014), Article-ID.
- [31] Rajul Kumar, K.K. Mishra, Ashish Tripathi, Abhinav Tomar, and Surendra Singh. "MSEA: Modified Symmetric Encryption Algorithm". In: *IACR Cryptology ePrint Archive* 2014 (2014), p. 280.
- [32] K. K. Mishra, Prince Bhatia, Shailesh Tiwari, and A. K. Misra. "A Novel Genetic Algorithm for Generating Prime Numbers". In: *Journal of Algorithms and Optimization* 0001 (2013), pp. 25–29.
- [33] Anupam Biswas, K.K. Mishra, Shailesh Tiwari and A.K. Misra. "Physics-inspired optimization algorithms: a survey". In: *Journal of Optimization* 2013 (2013).
- [34] Brajesh Kumar Singh, Shailesh Tiwari, K.K. Mishra and Arun Kumar Misra. "Tuning of cost drivers by significance occurrences and their calibration with novel software effort estimation method". In: *Advances in Software Engineering* 2013 (2013), p. 6.
- [35] Anoj Kumar, K.K. Mishra, and A.K. Misra. "Improving the Fault Detection Capability of Test suite Using Elitist Genetic Algorithm". In: *Engineering and Technology Research Academia Publishing* 1(1) (2013), pp. 001–013.
- [36] Shailesh Tiwari, KK Mishra, and AK Misra. "Regression Testing: A Spectrum-based Approach". In: *International Journal of Computer Applications* 55.18 (2012).
- [37] S. K. Harit, S. K. Saini, N. Tyagi and K.K. Mishra. "RSA Threshold Signature Based Node Eviction in Vehicular Ad Hoc Network". In: *Information Technology Journal* 11.8 (2012), pp. 980–988.

- [38] KK Mishra, Ashish Tripathi, and AK Misra. "A performance evaluation tool for behavioral analysis of students". In: *Journal of Applied Sciences* 12.15 (2012), p. 1572.
- [39] KK Mishra and Sandeep Harit. "A fast algorithm for finding the non dominated set in multi-objective optimization". In: *International Journal of Computer Applications* 1.25 (2010), p. 3539.

Papers as - Book chapters

- [1] Shailesh Tiwari, KK Mishra, Nitin Saxena, Nitin Singh, and AK Misra. "Artificial Immune System Based MAC Layer Misbehavior Detection in MANET". In: *Advanced Computer and Communication Engineering Technology*. Springer, 2016, pp. 707–722.
 - [2] Ashish Tripathi, Divya Kumar, Krishn Kumar Mishra, and Arun Kumar Misra. "GA-EAM Based Hybrid Algorithm". In: *Intelligent Computing Theory*. Springer, 2014, pp. 13–20.
 - [3] KK Mishra, Shailesh Tiwari, and AK Misra. "Improved environmental adaption method for solving optimization problems". In: *Computational Intelligence and Intelligent Systems*. Springer, 2012, pp. 300–313.
 - [4] KK Mishra, Shailesh Tiwari, and AK Misra. "Combining Non Revisiting Genetic Algorithm and Neural Network to Generate Test Cases for White Box Testing". In: *Practical Applications of Intelligent Systems*. Springer, 2011, pp. 373–380.
 - [5] Gaurav Verma, Arun Kumar, and Krishna K Mishra. "A novel non-dominated sorting algorithm". In: *Swarm, Evolutionary, and Memetic Computing*. Springer, 2011, pp. 274–281.
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Papers in - Conference/Workshop/symposium

- [1] Tribhuvan Singh, Ranvijay Singh, and Krishn Kumar Mishra. "Software Cost Estimation Using Environmental Adaptation Method". In: *Procedia computer science* 143 (2018), pp. 325–332.
- [2] Nitin Saxena, KK Mishra, and Ashish Tripathi. "DWT-SVD-Based Color Image Watermarking Using Dynamic-PSO". In: *Advances in Computer and Computational Sciences*. Springer, 2018, pp. 343–351.
- [3] Arjun Arora, Nitin Rakesh, and Krishn K Mishra. "Scrutiny of VANET Protocols on the Basis of Communication Scenario and Implementation of WAVE 802.11 p/1609.4 with NS3 Using SUMO". In: *Advances in Computer and Computational Sciences*. Springer, 2017, pp. 355–371.
- [4] Arjun Arora, Nitin Rakesh, and Krishn K Mishra. "Reliable Packet Delivery in Vehicular Networks Using WAVE for Communication Among High Speed Vehicles". In: *Networking Communication and Data Knowledge Engineering*. Springer, 2018, pp. 65–77.
- [5] Darothi Sarkar, Nitin Rakesh, and Krishn K Mishra. "Broadcast Storm ProblemfffdfffdfffdA Hidden Consequence of Content Distribution in Content Delivery Networks". In: *Networking Communication and Data Knowledge Engineering*. Springer, 2018, pp. 155–165.
- [6] Priyanka Singh, KK Mishra, and Pragya Dwivedi. "Enhanced hybrid model for electricity load forecast through artificial neural network and Jaya algorithm". In: *Intelligent Computing and Control Systems (ICICCS), 2017 International Conference on*. IEEE. 2017, pp. 115–120.
- [7] Shashank Gupta, Divya Kumar, and KK Mishra. "Truss Structure Optimization Using Co-variance Based Artificial Bee Colony Algorithm". In: *International Conference in Swarm Intelligence*. Springer. 2016, pp. 174–183.
- [8] Arjun Arora, KK Mishra, and Nitin Rakesh. "Reconsidering the cloud approach towards VANET communication". In: *Parallel, Distributed and Grid Computing (PDGC), 2016 Fourth International Conference on*. IEEE. 2016, pp. 22–27.

- [9] Shailesh Tiwari, KK Mishra, Nitin Singh, and NR Rawal. "A New Particle Acceleration-Based Particle Swarm Optimization Algorithm". In: *International Conference in Swarm Intelligence*. Springer. 2016, pp. 314–321.
- [10] Richa Shukla, Bramah Hazela, Shashwat Shukla, Ravi Prakash, and K. K. Mishra. "Variant of Differential Evolution Algorithm". In: *Advances in Intelligent Systems and Computing*. Springer, 2016.
- [11] Arjun Arora, Nitin Rakesh, and K. K. Mishra. "Scrutiny of VANET Protocols on the Basis of Communication Scenario and Implementation of WAVE 802.11p/1609.4 with NS3 using SUMO". In: *Advances in Intelligent Systems and Computing*. Springer, 2016.
- [12] Nitin Saxena, K.K. Mishra, and Ashish Tripathi. "Optimizing Watermark Strength in DWT-SVD based Image Watermarking Scheme for Color Images using Dynamic-PSO". In: *Advances in Intelligent Systems and Computing*. Springer, 2016.
- [13] Tribhuvan Singh, Ankita Shukla, and K. K. Mishra. "Improved Environmental Adaption Method with Real Parameter Encoding for solving optimization problems". In: *Advances in Intelligent Systems and Computing*. Springer, 2016.
- [14] Divya Kumar and K. K. Mishra. "Artificial Bee Colony as a Frontier in Evolutionary Optimization: A Survey". In: *Advances in Intelligent Systems and Computing*. Springer, 2016.
- [15] Divya Kumar and KK Mishra. "The Impacts of Test Automation on Software's Cost, Quality and Time to Market". In: *Procedia Computer Science* 79 (2016), pp. 8–15.
- [16] Nitin Saxena, Ashish Tripathi, KK Mishra, and AK Misra. "Dynamic-PSO: An improved particle swarm optimizer". In: *Evolutionary Computation (CEC), 2015 IEEE Congress on*. IEEE. 2015, pp. 212–219.
- [17] Divya Kumar and Krishn Kumar Mishra. "Incorporating logic in Artificial Bee Colony (ABC) algorithm to solve first order logic problems: The logical ABC". In: *Knowledge and Smart Technology (KST), 2015 7th International Conference on*. IEEE. 2015, pp. 65–70.
- [18] A. Tripathi, P. Garbaly, K. K. Mishra, and A. K. Misra. "Environmental adaption method for dynamic environment". In: *2014 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*. Oct. 2014, pp. 216–221. DOI: 10.1109/SMC.2014.6973910.
- [19] Ritu Nigam, Alok Choudhary, and KK Mishra. "Non-dominated sorting environmental adaptation method (NS-EAM)". In: *Signal Processing and Integrated Networks (SPIN), 2014 International Conference on*. IEEE. 2014, pp. 595–600.
- [20] Arijit Biswas, Ajit Kumar, and KK Mishra. "Particle Swarm Optimization with cognitive avoidance component". In: *Advances in Computing, Communications and Informatics (ICACCI), 2013 International Conference on*. IEEE. 2013, pp. 149–154.
- [21] Sunita Tiwari, KK Mishra, and Arun Kumar Misra. "Test case generation for modified code using a variant of particle swarm optimization (PSO) algorithm". In: *Information Technology: New Generations (ITNG), 2013 Tenth International Conference on*. IEEE. 2013, pp. 363–368.
- [22] KK Mishra, Shailesh Tiwari, and AK Misra. "A bio inspired algorithm for solving optimization problems". In: *Computer and Communication Technology (IC3T), 2011 2nd International Conference on*. IEEE. 2011, pp. 653–659.
- [23] Divya Kumar, Divya Kashyap, KK Mishra, and AK Mishra. "Routing path determination using QoS metrics and priority based evolutionary optimization". In: *High Performance Computing and Communications (HPCC), 2011 IEEE 13th International Conference on*. IEEE. 2011, pp. 615–621.
- [24] Shailesh Tiwari, KK Mishra, Anoj Kumar, and Arun Kumar Misra. "Spectrum-based fault localization in regression testing". In: *Information Technology: New Generations (ITNG), 2011 Eighth International Conference on*. IEEE. 2011, pp. 191–195.

- [25] Anoj Kumar, Shailesh Tiwari, KK Mishra, and AK Misra. "Notice of Retraction Generation of efficient test data using path selection strategy with elitist GA in regression testing". In: *Computer Science and Information Technology (ICCSIT), 2010 3rd IEEE International Conference on*. Vol. 9. IEEE. 2010, pp. 389–393.
- [26] KK Mishra, Shailesh Tiwari, Anoj Kumar, and AK Misra. "An approach for mutation testing using elitist genetic algorithm". In: *Computer Science and Information Technology (ICCSIT), 2010 3rd IEEE International Conference on*. Vol. 5. IEEE. 2010, pp. 426–429.
- [27] Divya Kumar, Divya Kashyap, KK Mishra, and AK Misra. "Security Vs cost: An issue of multi-objective optimization for choosing PGP algorithms". In: *Computer and Communication Technology (ICCT), 2010 International Conference on*. IEEE. 2010, pp. 532–535.
- [28] Anoj Kumar, KK Mishra, and Arun Kumar Misra. "Generating Efficient Test Cases Using Genetic Algorithm." In: *IC-AI*. 2010, pp. 126–130.
- [29] Shailesh Tiwari, KK Mishra, Anoj Kumar, and AK Misra. "An Integrated Approach for Regression Testing using Program Spectra and Path Selection". In: *Proceedings of 2010 International Conference on Test and Measurement (ICTM2010)*. 2010.
- [30] KK Mishra, Anoj Kumar, and AK Misra. "A variant of NSGA-II for solving priority based optimization problems". In: *Intelligent Computing and Intelligent Systems, 2009. ICIS 2009. IEEE International Conference on*. Vol. 1. IEEE. 2009, pp. 612–615.
- [31] K.K. Mishra, Brajesh Kumar Singh, Akash Punhani and Uma Singh. "Combining neural networks and genetic algorithms to predict and to maximize lemon grass oil production". In: *2009 International Joint Conference on Computational Sciences and Optimization*. IEEE. 2009, pp. 297–299.
- [32] Anoj Kumar, KK Mishra, and Arun Kumar Misra. "Optimizing the reliability of communication network using specially designed genetic algorithm". In: *Nature & Biologically Inspired Computing, 2009. NaBIC 2009. World Congress on*. IEEE. 2009, pp. 499–502.
- [33] Brajesh Kumar Singh, Akash Punhani, KK Mishra, et al. "Hybrid computational method for optimizing isabgol production". In: *2009 World Congress on Nature & Biologically Inspired Computing (NaBIC)*. 2009.
- [34] K. K. Mishra, A. Kumar, and A. K. Misra. "A variant of NSGA-II for solving priority based optimization problems". In: *Intelligent Computing and Intelligent Systems, 2009. ICIS 2009. IEEE International Conference on*. Vol. 1. Nov. 2009, pp. 612–615. DOI: 10.1109/ICICISYS.2009.5357606.
- [35] Krishn Mishra, Sandeep Harit, and Neeraj Tyagi. "Multi-Objective Optimization of Communication Network Using NSGA". In: *Proceedings of the 2009 International Conference on Genetic and Evolutionary Methods, GEM 2009, July 13-16, 2009, Las Vegas Nevada, USA*. 2009, pp. 256–262.
- [36] Krishn Mishra, Nishant Chauhan, and Akash Punhani. "Predicting the Yield of Various Aromatic Plants With the Help of Neural Network". In: *Proceedings of the 2009 International Conference on Artificial Intelligence, ICAI 2009, July 13-16, 2009, Las Vegas Nevada, USA, 2 Volumes*. 2009, pp. 15–17.
- [37] K. K. Mishra, B. K. Singh, A. Punhani, and L. Sharma. "Optimizing melting rate and fuel consumption of rotary furnace using NSGA -II". In: *2008 IEEE Congress on Evolutionary Computation (IEEE World Congress on Computational Intelligence)*. June 2008, pp. 3783–3787. DOI: 10.1109/CEC.2008.4631310.

Supervisions

Ph.D Thesis Supervision Awarded

1. **Ashish Tripathi** on the topic "Nature Inspired Optimization Algorithms: A New Perspective Based on Evolution in Dynamic Environment".

Ph.D Thesis Supervision Ongoing and Awarded

1. **Nitin Saxena** on the topic "Variants of Particle Swarm Optimization and their applications in Digital Watermarking", Status: Awarded, November-2018.
2. **Divya Kumar** in the area "Optimization using Artificial Bee Colony Algorithm", Status: Awarded, 2016.
3. **Ashish Tripathi** in the area "Nature Inspired Optimization Algorithms: A New Perspective Based on Evolution in Dynamic Environment", Status: Awarded, 2015.
4. **Ravi Prakash** in the area "Cloud Computing & Big Data".
5. **Tribhuvan Singh** in the area "Optimization & Neural Networks".
6. **Satya Deo Kumar** in the area "Cloud Computing & Big Data".
7. **Priyanka Singh** in the area "Optimization & Neural Networks".

*M.Tech Thesis Supervision**In 2015*

1. **Hemant Bisht** on the topic "Improved Particle Swarm Optimization Algorithm".
2. **Anshutosh Kumar** on the topic "Improved Differential Evolution Algorithm".
3. **Ramphal Maurya** on the topic "Variant of ABC Algorithm for solving optimization problems".

In 2014

1. **Rajul Kumar** on the topic "Design and Implementation of Hybrid Cryptosystem".
2. **Prasoon Hazari** on the topic "Improved Quantum Genetic Algorithm".
3. **Rati Shukla** on the topic "Test Oracle generation using Differential Evaluation".

In 2013

1. **Neha Agarwal** on the topic "Differential evolution algorithm with adaptive mutation".
2. **Mukesh kr. Khandelwal** on the topic "Improved particle swarm optimizer".
3. **Kapil Rajput** on the topic "A novel approach to improve the performance of GA".
4. **Manoj Jain** on the topic "Minimize the size of the test suite using genetic algorithm for object oriented program".
5. **Vikas Anand** on the topic "Prime Number Generation using Genetic Algorithm".
6. **Gurucharan Nandi** on the topic "Reducing the size of test suite using a variant of Non dominated Sorting Genetic Algorithm II".
7. **Ankur Gupta** on the topic "Particle Acceleration Based Particle Swarm Optimization".

In 2012

1. **Ashish Tripathi** on “A Performance Evaluation Software (PES) for Behavioral Analysis of Students”.
2. **Rajoo Kr. Kannaujiya** on “A Modified Time Varying Acceleration Coefficients Based PSO with High Performance”.
3. **Mhd Feeroz** on “A Hybrid Optimization Algorithm”.
4. **Kuldeep Jaiswal** on “Test Case Selection in Regression Testing Applying Genetic Algorithm”.
5. **Ajay Prakash Dixit** on “A Mutation Testing Based Approach for Test Data Generation”.
6. **Akhilesh Pandey** on “Automatic Test Case Generation for White Box Testing”.
7. **Akhilesh Kumar** on “Guaranteed Convergence Particle Swarm-Optimization Using Personal Best”.
8. **Vivek Sharma** on “Auto Adjustive Differential Evolution Algorithm”.

In 2011

1. **Sanjai Sachan** on the topic “Search Based Space Reduction for Efficient Test Data Generation”.
2. **Amit Kr. Srivastava** on the topic “Test Data Generation for White Box Testing Using Neural Network and Genetic Algorithm”.

Courses Taught

- Machine learning
- Advance Evolutionary Computing
- Genetic Algorithm
- Analysis of Algorithm
- Neural Network
- Cryptography
- Automata Theory
- Computer Architecture
- Programming in C++
- Data Structure
- Microprocessor
- Advanced Computer Architecture

Professional Activities

Journal Editor

- Guest Editor: Special issue “Recent Advances in Multimedia Big Data” of **Multimedia Tools and Applications** in 2017.
- Lead Guest Editor: Special issue “Recent Advancements in Computer, Communication and Computational Sciences” of **Journal of Intelligent & Fuzzy Systems** in 2016.
- Lead Guest Editor: Special issue “Recent Advancements in Computer & Software Technology 2015” of **The Scientific World Journal**.
- Lead Guest Editor: “Recent Advancements in Computer & Software Technology.” of **The Scientific World Journal, Volume 2014**.

Journal Reviewer

- IEEE Transactions on Cybernetics
- IEEE Access journal
- Journal of Super Computing
- Computational Intelligence
- Journal of Optimization
- The Scientific World Journal

Conference/Seminar/ Workshop organized

1. **Program Chair** ICRACCCS-2016, International Conference on Recent Advancement in Computer, Communication and Computational Sciences, organised at *JRNRV University, Udaipur, Rajasthan, INDIA*
2. **Program Chair** ICCCCS- 2016, International Conference on Computer, Communication and Computational Sciences, organised at *ACERC, Ajmer, Rajasthan, India*
3. **Program Chair** ICCCT 2015, IEEE Conference on Computer and Communication Technology, organised at *MNNIT Allahabad, Allahabad, U.P., India*
4. **Program Chair** ICCCT 2014, IEEE Conference on Computer and Communication Technology, organised at *MNNIT Allahabad, Allahabad, U.P., India*
5. **Coordinator** NIASE 2014, Nature Inspired Algorithms and Its Applications in Software Engineering, organised at *MNNIT Allahabad, Allahabad, U.P., India*
6. **Coordinator** ASCME 2014, Application of Soft Computing Methods in Engineering, organised at *MNNIT Allahabad, Allahabad, U.P., India*
7. **Organising Secretary** ICCCT 2013, IEEE Conference on Computer and Communication Technology, organised at *MNNIT Allahabad, Allahabad, U.P., India*
8. **Organising Secretary** ICCCT 2012, IEEE Conference on Computer and Communication Technology, organised at *MNNIT Allahabad, Allahabad, U.P., India*

9. **Organising Secretary** ICCCT 2011, IEEE Conference on Computer and Communication Technology, organised at MNNIT Allahabad, Allahabad, U.P., India
10. **Organising Secretary** ICCCT 2010, IEEE Conference on Computer and Communication Technology, organised at MNNIT Allahabad, Allahabad, U.P., India

Invited Lecture[s] delivered

Title of Lecture	Conference/ Organisation	Venue
Advance Trends in Information & Communication Technology	IEEE Computer Society Student Branch Chapter	Sachdeva Institute Of Technology Mathura (UP)
Evolutionary Algorithms in Multi-objective optimization	Optimization Techniques & Their Applications(NWOTA-2013)	Motilal Nehru National Institute Of Technology Allahabad (UP)
Symmetric Key Cryptosystem : AES	National Instructional Workshop on Cryptology(NIWC-2014)	Motilal Nehru National Institute Of Technology Allahabad (UP)

Other Services

- Convener of DUGC (Department Undergraduate Committee).
- Member DMPC (Department Master's Programme Committee).
- Member of Discipline committee.
- Visiting Lecture at Gurukul Kangari University, Haridwar.

References

1. **Yong Wang**, Associate Professor- School of Information Science and Engineering, Central South University (CSU)
Changsha 410083, China
Email:ywang@csu.edu.cn
2. **Prof. Gregorio Martinez Perez**, Full Professor - Catedrático de Universidad (University Professor), Departamento de Ingenieria de la Informacion y las Comunicaciones-DIIC (Department of Information Engineering and Communications), University of Murcia (UMU), Spain.
Email: gregorio@um.es
3. **Prof. A. K. Misra**, Professor-Department of Computer Science and Engineering
Motilal Nehru National Institute of Technology
Allahabad, India.
Email:akm@mnnit.ac.in