

Dr. Koyel Datta Gupta

Professor

Department of Computer Science and Engineering

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Memberships of Professional bodies **IEEE Member** (90552739)

Vidwan-ID: 240950

AREA OF INTEREST/SPECIALIZATION: Wireless Communication, Machine Learning, IoT and Blockchain

EDUCATION

- **Ph.D (Jamia Millia Islamia)**
- **M. Tech (Gold Medal, Jadavpur University)** secured **87.81%** marks
- **B. Tech (Kalyani University)** secured **85.56%** marks

EXPERIENCE: 20 years

S. No.	Duration	Employer Name	Positions Held
1	01 September 2023- Till date	Maharaja Surajmal Institute of Technology, New Delhi	Professor
2	30 March 2016 – August 2023	Maharaja Surajmal Institute of Technology, New Delhi	Associate Professor
3	August 2009 - 29 March 2016	Maharaja Surajmal Institute of Technology, New Delhi	Reader
4	January 2009 - July 2009	Maharaja Surajmal Institute of Technology, New Delhi	Lecturer
5	September 2007 - December 2008	Dronacharya College of Engineering, Gurgaon	Lecturer
6	August 2004 - December 2006	Techno India, Saltlake, Kolkata, West Bengal	Lecturer
7	July 2003 - July 2004	Oriens Infotech, Saltlake, Kolkata, West Bengal	Faculty

KEY PUBLICATIONS

SCI/SCI-E/ESCI Indexed

1. D. Sethi, D. K. Sharma, **K. Datta Gupta** and G. Srivastava, "SAGA: Stability-Aware Gait Analysis in constraint-free environments," *Gait & Posture*, vol. 113, pp. 215-223, September 2024. (Impact Factor: 2.2)
2. B. Dhingra, V. Jain, D. K. Sharma, **K. Datta Gupta** and D. Kukreja, "RLET: a light weight model for ubiquitous multi-class intrusion detection in sustainable and secured smart environment," *International Journal of Information Security*, vol. 23, no. 1, pp. 315-330, 2024. (Impact Factor: 2.4)
3. C. Kuntala, Sristi, **K. Datta Gupta**, A. Dev, D.K. Sharma, D. Gupta, "Glioma resection cavity segmentation on neuroimaging using AI-based fuzzy enhancement with modified UNet," *Applied and Computational Mathematics*, vol. 22, no. 3, pp. 338–354, 2023. doi:10.30546/1683-6154.22.3.2023.338 (Impact Factor: 10).
4. **K. Datta Gupta**, K. Singhal, D. K. Sharma, N. Sharma, S. Malebary, "Fuzzy Controller-empowered Autoencoder Framework for anomaly detection in Cyber Physical Systems," *Computers and Electrical Engineering*, Vol. 108, pp. 108685, 2023. (Impact Factor: 4.89).
5. **K. Datta Gupta**, D. K. Sharma, R. Dwivedi, G. Srivastava, "AHDNN: Attention-Enabled Hierarchical Deep Neural Network Framework for Enhancing Security of Connected and Autonomous Vehicles," *Journal of Circuits, Systems and Computers*. 10.1142/S0218126623500585. (Impact Factor: 1.33).
6. D.K. Sharma, V. Jain, B. Dhingra, **K. Datta Gupta**, U. Ghosh, W.A. Al-Numay, W, "A novel Hypertuned Prophet based power saving approach for IoT enabled smart homes," *Transactions on Emerging Telecommunications Technologies*, 2022; e4597. doi:10.1002/ett.4597. (Impact Factor: 3.31).
7. K. Gupta, D.K. Sharma, **K. Datta Gupta**, A. Kumar, "A tree classifier-based network intrusion detection model for Internet of Medical Things," *Computers and Electrical Engineering*, vol. 102, pp. 1-20, 2022. (Impact Factor: 4.89).
8. A. Riyal, G. Kumar, D. K. Sharma, **K. Datta Gupta**, and G. Srivastava, "Blockchain Tree Powered Green Communication for Efficient and Sustainable Connected Autonomous Vehicles," *IEEE Transactions on Green Communications and Networking*, vol. 6, no. 3, pp. 1428-1437, Sept. 2022, doi: 10.1109/TGCN.2022.3166104. (Impact Factor: 3.525).
9. Deepak Kumar Sharma, Sanjay K. Dhurandher, Shubham Kumaram, **K. Datta Gupta**, Pradip Kumar Sharma, "Mitigation of black hole attacks in 6LoWPAN RPL-based Wireless sensor network for cyber physical systems," *Computer Communications* Vol. 189, pp. 182-192, ISSN 0140-3664, <https://doi.org/10.1016/j.comcom.2022.04.003>. (Impact Factor: 5.047).
10. **K. Datta Gupta**, Dwivedi, Rinky and Sharma, Deepak Kumar. "Predicting and monitoring COVID-19 epidemic trends in India using sequence-to-sequence model and an adaptive SEIR model," *Open Computer Science*, vol. 12, no. 1, 2022, pp. 27-36. <https://doi.org/10.1515/comp-2020-0221>.
11. **K. Datta Gupta**, R. Nigam, D. K. Sharma and S. K. Dhurandher, "LSTM based Energy-Efficient Wireless Communication with Reconfigurable Intelligent Surfaces," *IEEE Transactions on Green Communications and Networking*, vol. 6, no. 2, pp. 704-712, June 2022, doi: 10.1109/TGCN.2021.3135437. (Impact Factor: 3.525).

12. A. Goel, D.K. Sharma, and **K. Datta Gupta**, "LEOBAT: Lightweight encryption and OTP based authentication technique for securing IoT networks," *Expert Systems*, vol. 39, no. 5, e12788, 2021. (Impact Factor: 2.587).
13. **K. Datta Gupta**, D. K. Sharma, S. Ahmed, H. Gupta, D. Gupta and C. H. Hsu, "A Novel Lightweight Deep Learning-Based Histopathological Image Classification Model for IoMT," *Neural Processing Letters*, pp. 1–24, 2021. (Impact Factor: 2.565).
14. S. Banyal, R. Dwivedi, **K. Datta Gupta**, D.K. Sharma, F.A. Turjman and L. Mostarda, "Technology Landscape for Epidemiological Prediction and Diagnosis of COVID-19," *Computers, Materials & Continua*, Vol.67, No.2, pp.1679-1696, 2021. (Impact Factor: 3.772).
15. M. Sharma, S. Pant, D.K. Sharma, **K. Datta Gupta**, V. Vashishth, A. Chhabra, "Enabling security for the Industrial Internet of Things using deep learning, blockchain, and coalitions," *Transactions on Emerging Telecommunications Technologies*, Vol. 32, No. 7, 2021. (Impact Factor: 3.31).
16. **K. Datta Gupta**, R. Dwivedi and D. K. Sharma, "Prediction of Covid-19 trends in Europe using generalized regression neural network optimized by flower pollination algorithm," *Journal of Interdisciplinary Mathematics*, Vol. 24, No. 1, pp. 33-51, 2021.
17. **K. Datta Gupta**, A. Q. Ansari, P.C. Saxena and Rinky Dwivedi "Optimizing channel allocation in WiMAX MIMO model using fuzzy game theory," *Journal of Information and Optimization Sciences*, vol. 41 no. 7 <https://doi.org/10.1080/02522667.2020.1799510>. August, 2020.

SCOPUS and OTHER REFERRED JOURNALS

1. S. P. A. Kumar, H. K. Thakur, **K. Datta Gupta**, and D. K. Sharma, "SMART: Secured and Mobility Aware Routing Technique for Opportunistic IoT Network in Smart Cities", *JMM*, vol. 20, no. 02, pp. 335–358, Mar. 2024.
2. R. Dwivedi, **K. Datta Gupta**, T. Sharma, R. Raizada, S. Yadav, V. Bhatia R. "Analysing Trading Strategies and Forecasting Stock Prices Using LSTM," *Journal of Theoretical and Applied Information Technology*, Vol.100. No 15 pp. 4834-4843, 2022.
3. A. Q. Ansari, P.C. Saxena and **K. Datta Gupta**, "Channel Allocation with Sub-Optimal Power Control in WiMAX Networks using Fuzzy Inference System," *Procedia Computer Science*, Elsevier vol. 57, pp. 152-159, 2015.
4. A. Q. Ansari, P.C. Saxena and **K. Datta Gupta**, "Traffic Load Adaptive Hybrid Channel Allocation in Wireless Communication Network," *Communications (ACTA Press)*, vol. 3, pp. 1-10, 2014. doi: 10.2316/Journal.214.2014.3.214-1073.
5. A. Q. Ansari, P.C. Saxena and **K. Datta Gupta** "Token Based Distributed Dynamic Channel Allocation in Wireless Communication Network," *CSI Transactions on ICT (Springer)*, vol. 2, no. 2, pp. 109-116, 2014. doi: 10.1007/s40012-014-0051-7.

PAPERS in CONFERENCES

1. N. Bansal, P. Arora, D. K. Sharma, **K. Datta Gupta** and C. Kuntala, "Image Analysis for E-Healthcare Systems using Multi-Biometric Recognition Model," 2023 International Conference on Advancement in Computation & Computer Technologies (InCACCT), Gharuan, India, 2023, pp. 639-644, available on: <https://ieeexplore.ieee.org/abstract/document/10141736>, doi: 10.1109/InCACCT57535.2023.10141736

2. **K. Datta Gupta**, N. Dahiya, M. Dabas and P. Pushparaj, "Playing football game using AI agents," *2022 International Conference on Emerging Techniques in Computational Intelligence (ICETCI)*, 2022, pp. 84-88, doi: 10.1109/ICETCI55171.2022.9921374.
3. **K. Datta Gupta**, Bhatnagar, A., Gupta, A., Sharma, T. (2022). A Novel CNN Framework for Early-Stage Detection of Blindness in Diabetic Patients. In: Iyer, B., Crick, T., Peng, SL. (eds) *Applied Computational Technologies. ICCET 2022. Smart Innovation, Systems and Technologies*, vol 303. Springer, Singapore. https://doi.org/10.1007/978-981-19-2719-5_10.
4. **K. Datta Gupta**, Aditya Garg, Himanshu Bhaskar and Paras Jain, "Behaviour Prediction using Graphology" in *Proc. 3rd International Conference on Innovative Computing and Communication (Elsevier) 2020*. Available at SSRN: <https://ssrn.com/abstract=3562969>.
A. Q. Ansari and **K. Datta Gupta**, "A Survey on Power Distribution in Wireless Mesh Network," in *Proc. 12th IEEE International India Conference 2015*, pp. 1-4, available on <http://ieeexplore.ieee.org>, December, 2015. DOI: 10.1109/INDICON.2015.7443276.
5. A. Q. Ansari, P.C. Saxena and **K. Datta Gupta**, "Reliable Energy Efficient Channel Assignment in WiMAX Mesh Networks," in *Proc. 3rd International Conference on Reliability, Infocom Technologies and Optimization*, pp. 219-222 October 2014. [Online] Available: <http://ieeexplore.ieee.org>. doi: 10.1109/ICRITO.2014.7014690.
6. A. Q. Ansari, P.C. Saxena, **K. Datta Gupta**, "Cost Optimized K-Fault Tolerant Channel Assignment in Wireless Network," in *Proc. Int. Conf. On Parallel, Distributed and Grid Computing*, pp. 18-21, December 2012. [Online] Available: <http://ieeexplore.ieee.org>. doi:10.1109/PDGC.2012.6449784.
7. A. Q. Ansari, P.C. Saxena and **K. Datta Gupta**, "Fuzzy Clustering Based Channel Allocation in Cellular Network," in *Proc. Int. Conf. On Computational Intelligence and Communication Networks*, pp. 815-818, November 2012. [Online] Available: <http://ieeexplore.ieee.org>. doi: 10.1109/CICN.2012.117.
8. A. Q. Ansari, **K. Datta Gupta** and M. Dabas, "Optimal Design of Single Fault Tolerant Candidate Set for a Communication Network," in *Proc. Int. Conf. On Communication Systems and Network Technologies*, pp. 590 – 593, May 2012. [Online] Available: www.ieeexplore.org doi: 10.1109/CSNT.2012.133.
9. A. Q. Ansari, M. Dabas and **K. Datta Gupta**, "Efficient Node Numbering for Cost Effective K-Fault Tolerant Wireless Network," in *Proc. 3rd IEEE Int. Conf. On Comp. Sc. And Inf. Tech., China, Vol. 7*, pp. 534 – 537, September 2010. [Online] Available: www.ieeexplore.org doi: 10.1109/ICCSIT.2010.556481.

BOOKS /BOOK CHAPTER PUBLISHED

1. C.S.Verma, Rajesh Purohit, **K. Datta Gupta** and Harsha Verma, *Computer Graphics & CAD*, Manakin Press, 2015. ISBN:978-93-84370-05-3.
2. A. Q. Ansari and **K. Datta Gupta**, *Fuzzy Game Theory for Web Security, Applications of Soft Computing for the Web*, Springer, 2017. ISBN: 978-981-10-7097-6.
3. R. Dwivedi, **K. Datta Gupta**, D. Sharma, *Security and Surveillance at Smart Homes in a Smart City Through Internet of Things*, Springer, 2021. ISBN: 978-3-030-52624-5.
4. R. Dwivedi, **K. Datta Gupta**, *Green Computing at a Glance- Solution for Next Generation, Green Computing in Network Security, Energy Efficient Solutions for Business and Home*, Taylor & Francis, 2022, ISBN: 9781003097198.
5. Deepak Kumar Sharma, Arjun Khera, **K. Datta Gupta**, Rinky Dwivedi, *Blockchain Based Hybrid Framework for Identity Management in Healthcare, Recent Advances in IoT and Blockchain Technology Advances in Computing Communications and Informatics - Vol. 4 (2022) 4: 44*. <https://doi.org/10.2174/9789815051605122040004>, ISBN: 978-981-5051-60-5.

6. **K. Datta Gupta**, Aditya Gupta, Tanmay Sharma, Aayush Bhatnagar, Identification of Counterfeit Drugs Using Decentralized Supply Chain, Recent Advances in IoT and Blockchain Technology Advances in Computing Communications and Informatics - Vol. 4 (2022) 4: 146. <https://doi.org/10.2174/9789815051605122040008>, ISBN: 978-981-5051-60-5
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PATENT/COPYRIGHT

1. Dr. Robin Singh Bhadoria, Dr. Tripti Sharma, Mr. Akshat Goyal, Dr. Rinky Dwivedi, **Dr. Koyel Datta Gupta**, Dr. Rekha Tripathi, Dr. Archana Balyan, Dr. Meena Rao, “Method for Authenticating and Validating Quick Response Code,” Patent No. 202121010704 A, Date of filing: 14-3-2021, Date of Publishing: 9-4-2021.
 2. Dr. Gaurav Dubey, Dr. Pooja Malik, Dr. Charu Agarwal, Anurag Mishra, Dr. Deepak Kumar Sharma, **Dr. Koyel Datta Gupta**, Dr. Rinky Dwivedi, “Sensor Based Electronic Device,” Patent No. 202111019223 A, Date of filing: 27/04/2021, Date of Publishing:30/04/2021.
 3. **Dr. Koyel Datta Gupta**, Dr. Rinky Dwivedi, Dr. Deepak Kumar Sharma, Dr. Tripti Sharma, Dr. Alka Singhal, “A Wearable Sensor Based Customized Menstrual Cycle Predictor,” Patent No. 202111043930 A, Date of filing:28-09-2021, Date of Publication: 15-10-2021.
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IMPORTANT FDP ATTENDED

1. 1-week FDP on “Curriculum Design for Outcome Based Education” AICTE recognized STC by NITTR, Chandigarh at Maharaja Surajmal Institute of Technology, 3-7 June, 2024.
2. 1-week FDP on “Effective teaching learning using social media” AICTE recognized STC by NITTR, Chandigarh at Maharaja Surajmal Institute of Technology, 27-31 May, 2024.
3. 12-weeks AICTE approved Massive Open Online Courses (MOOCs) course on Computer Networks and Internet Protocol, Jan-Apr, 2024.
4. 1-week FDP on “Cybersecurity” by ICT Academy at MSIT, 5-9 Feb, 2024.
5. 1-week AICTE FDP on “AI Evolution: From Foundations to Generative AI” by AICTE, Microsoft & SAP (online), 22-27 Jan, 2024.
6. 1-week ATAL FDP on “Building Advanced Data Analytics Applications with Cloud” by Edunet (online), 18-22 Dec, 2023.
7. 8-weeks AICTE approved Massive Open Online Courses (MOOCs) on “Data Mining” (Jan-Mar 2023).
8. 1-week AICTE, MOE's IIC Sponsored FDP on “Entrepreneurship, Innovations & Digital Skills in New Era of AI,” 25.07.2022-29.07.2022.
9. 8-weeks AICTE approved Massive Open Online Courses (MOOCs) on “Data Base Management System” (Jan-Mar 2022).
10. 1-week AICTE_ATAL FDP on Internet of Things (IoT)- A Practical Approach (6.12.2021-15.12.2021).
11. 2-weeks Industrial Training on “Data Science” (15.11.2021-26.11.2021).
12. 4-weeks AICTE approved Massive Open Online Courses (MOOCs) on “C programming and Assembly Language” (July-Aug 2021).

13. 1-week AICTE Refresher Programme on "Use of ICT in Engineering Education" (24.2.2021-2.3.2021).
 14. 4- weeks AICTE approved Massive Open Online Courses (MOOCs) on "Medical Image Analysis" (24.2.2020 – 20.3.2020).
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AWARDS / RECOGNITIONS and ACHIEVEMENTS

1. **Gold Medal** in M.Tech with **87.81%**.
 2. Top 1% (Gold) in 12-weeks AICTE approved Massive Open Online Courses (MOOCs) course on "Computer Networks and Internet Protocol" (Jan-Apr 2024)
 3. Awarded Excellence in Research for the year 2023 during Annual Day of MSIT Feb 03, 2024 in recognition for an outstanding contribution to the institution in academic, research & publications and co-curricular activities.
 4. Awarded with **Best Faculty(second)** for the academic year 2021-2022 during Annual Day of MSIT April 15, 2023 in recognition for outstanding contribution to the institution in academic, research & publications and co-curricular activities.
 5. Awarded **Excellence in Research** for the year 2022 during Annual Day of MSIT April 15, 2023 in recognition for an outstanding contribution to the institution in academic, research & publications and co-curricular activities.
 6. **Topper 1% (Gold)** in 8-weeks AICTE approved Massive Open Online Courses (MOOCs) course on "Data Mining" (Jan-Mar 2023).
 7. **Topper 1% (Gold)** in 8-weeks AICTE approved Massive Open Online Courses (MOOCs) course on "Data Base Management System" (Jan-Mar 2022).
 8. AICTE certified Mentor for inductee teachers.
 9. Editor "Green Computing in Network Security: Energy Efficient Solutions for Business and Home." Taylor & Francis. ISBN: 9780367562922.
 10. Awarded with **Certificate of Appreciation** for the academic year 2014-2015 during Annual Day of MSIT 2015 in recognition for outstanding contribution and continued dedication towards the multi-dimensional growth of the Institute
 11. Received **Letter of Appreciation** from Hon'ble President SMES on 2016 for rendering excellent services for the academic growth of the Institute.
 12. Received **Women Researcher Award** by International Research Awards on Science, Technology and Management in 2022.
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OTHER CONTRIBUTIONS

1. Publication committee in charge National Conference on Advances in Metrology (AdMET 2021).
2. Publication committee in charge International Conference (ICAIA 2020).
3. Certified ISO Auditor.
4. Participated in the National Conference on Advances in Metrology (AdMET 2021) as Session chair held on 5-6 Mar 2021.
5. Participated in the International Conference on Innovative Computing and Communication (ICICC-2020), as Session chair held on 21-23 Feb 2020.

6. Participated in the International Conference on Artificial Intelligence and Applications 2020(ICAIA) as Session chair held on 6-7 Feb 2020.
7. Participated in the NAAC sponsored National Conference on Quality Assurance in Higher Education: Practices and Issues as Co- chair held on 16-17 May 2019.
8. Participated as Guest Speaker on “Supervised Techniques for COVID-19 Assessment” in Online FDP on research Aspects in Modern Analytics and Cyber Security Jaypee Institute of Information Technology 20-24 July 2020.
9. Participated as Guest Speaker on “Wireless Cellular Network” in Emerging Trends in Information Technology at Maharaja Surajmal Institute of Technology, New Delhi, India, 29 Feb-4 March 2016.

ROLES AND RESPONSIBILITIES HELD IN THE COLLEGE

S. No.	Description	Role & Duration
1	AICTE	<ul style="list-style-type: none"> • Coordinator August 2021-Present • Member 2010-2021
2	Higher Study Cell	<ul style="list-style-type: none"> • Coordinator October 2023-Present
3	TIME TABLE	<ul style="list-style-type: none"> • Coordinator October 2023-Present • Member (2019-20)
4	UNDERSTANDING and IMPLEMENTATION OF LEGAL REQUIREMENTS	<ul style="list-style-type: none"> • Updating and Record Keeping of all approval letters
5	NAAC and IQAC	<ul style="list-style-type: none"> • Coordinator (August 2018-2023)
6	HOD (Department of Computer Science & Engineering, 1 st Shift)	<ul style="list-style-type: none"> • August 2016-August 2020
7	RESEARCH COMMITTEE	<ul style="list-style-type: none"> • Member (2017-18)
8	MOODLE	<ul style="list-style-type: none"> • Convenor (2017-18) • Convenor (2018-19)
9	JAC and ACADEMIC AFFILIATION	<ul style="list-style-type: none"> • Member (2015-16) • Member (2016-17)
10	INDUSTRY INSTITUTE CELL	<ul style="list-style-type: none"> • Member (2017-18)
11	FEE REGULATORY	<ul style="list-style-type: none"> • Co-coordinator (2017)
12	EXAM CELL	<ul style="list-style-type: none"> • Co-convenor (2015-16)
13	ALUMNI COMMITTEE	<ul style="list-style-type: none"> • Coordinator (2014)