

# Dr. Rinky Dwivedi

## Professor

Department of Computer Science and Engineering  
Maharaja Surajmal Institute of Technology

**Qualifications** Ph.D (Delhi Technological University), 2016  
M.E. (Delhi College of Engineering), 2008  
B.Tech(G.G.S.I.P. University), 2004

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**Email** [rinkydwivedi@msit.in](mailto:rinkydwivedi@msit.in)

**Area of Specialization** Software Engineering, Machine Learning, IoT and Blockchain

**Experience** 19 + years

EMPLOYER	POSITION	START DATE	END DATE	NATURE OF WORK
Maharaja Surajmal Institute of Technology	Associate Professor	05 <sup>th</sup> June 2017	Till date	Head of the Department
Maharaja Surajmal Institute of Technology	Assistant Professor	03 <sup>rd</sup> September, 2008	05 <sup>th</sup> June 2017	Teaching and Administration related activities
Bhagwan Parshuram Institute of Technology	Lecturer	July, 2008	August, 2008	Teaching
H.M.R.I.T.M	Lecturer	January, 2005	June, 2008	Teaching

### Ph.D Supervised - Awarded

Successfully guided one Ph.D. student in 2022. The candidate, Ms. Neelu Chaudhary was enrolled in Department of Computer Science & Technology under Faculty of Engineering of Manav Rachna University, Faridabad. The topic of the doctoral thesis is **Mining and Analysis of Evolving Patterns in Dynamic Graphs**.

### **NPTEL/MOOCs Courses Completed**

1. Awarded a **Gold certificate** on the completion of NPTEL 8 -week course on **Data Mining** in 2023.
2. Awarded an **Elite certificate** on the completion of NPTEL 8-week course on **Database Management Systems** in 2022.
3. Awarded a **Gold certificate** on the completion of NPTEL 4-week course on **Medical Image Analysis** in 2021.

### **Key Publications**

#### **SCI/ESCI and Scopus indexed Journals**

1. **Rinky Dwivedi** (2023). Intrusion Detection System for IoE-Based Medical Networks. Journal of Database Management (JDM), 34(2), 1-18. <http://doi.org/10.4018/JDM.321465> [ **Impact Factor – 1.2**].
2. **Rinky Dwivedi** (2022). 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 – 1.416**].
3. **Rinky Dwivedi (2022)** Automatic illness prediction system through speech, Computers and Electrical Engineering, Volume 102, 2022, 108224, ISSN 0045-7906<https://doi.org/10.1016/j.compeleceng.2022.108224>. [ **Impact Factor – 4.15**]
4. **Rinky Dwivedi** (2021) 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**]
5. **Rinky Dwivedi** (2022). Analyzing Trading Strategies and Forecasting Stock Prices using LSTM, In Journal of Theoretical and Applied Information Technology,1817-3195,Vol.100. No 15. [ **Scopus Enlisted**]
6. **Rinky Dwivedi** (2022). Application of nonlinear system identification for EEG modelling using VMD-based deep random vector functional link network. International Journal of Network and Virtual Organization 27, 2 (2022), 125–142. <https://doi.org/10.1504/ijnvo.2022.127601>. [ **Scopus Enlisted**]
7. **Rinky Dwivedi** (2022) An ensemble model to optimize modularity in dynamic bipartite networks. International Journal of System Assurance Engineering and Management, Springer. <https://doi.org/10.1007/s13198-022-01633-1> [ **Scopus Enlisted**]
8. **Rinky Dwivedi** (2022) A Dynamic Visual Analytical Approach for Crime - Transformation to Better Decision-Making Journal of Logistics, Informatics and Service Science Vol. 9 (2022) No.1, pp.367-404 ISSN 2409-2665, DOI:10.33168/LISS.2022.0122 [ **Scopus Enlisted**]

9. **Rinky Dwivedi** (2022) 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> [**Scopus Enlisted**]
10. **Rinky Dwivedi** (2021) Dynamic Visualization and Analysis of Government Responses-A Support System to Control Pandemic Situations *International Journal of Computing and Digital Systems* 2021 ISSN (2210-142X) (forthcoming article) [**Scopus Enlisted**]
11. **Rinky Dwivedi** (2021) 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. [**Scopus/ESCI Enlisted**]
12. **Rinky Dwivedi** (2020) 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 [**ESCI Enlisted**]
13. **Rinky Dwivedi** (2017) The Agile Method Engineering: Applying fuzzy logic for evaluating and configuring agile methods in practice. *In International Journal of Computer Aided and Engineering Technology*. H-index 2, SJR 0.11. ISSN-1757-2657, 2017. [**Scopus Enlisted**]
14. **Rinky Dwivedi** (2015) Applying machine learning for configuring agile methods. *In International Journal of Software Engineering and its Application*, 9(3), 29-40. H-index 5, SJR 0.25. ISSN-1738-9984, 2015. [**Scopus Enlisted**]
15. **Rinky Dwivedi** (2015) A frame work to support evaluation of project-in-hand and selection of software development method. *In Journal of Applied and Theoretical Information Technology*, 73(1), 137-148. H-index 7, SJR 0.19 ISSN-1992-8645, 2015. [**Scopus Enlisted**]

#### **Other Refereed Journals**

1. **Rinky Dwivedi**. A Complete method configuration process for configuring project-specific methods. In *Journal of Software*, 9(3), 29-40. H-index 15, SJR 0.49. ISSN 1796-217X, 2015.
2. **Rinky Dwivedi** Method Configuration from Situational Method Engineering. In *ACM SIGSOFT* 37(3), 1-11. ISSN-0163-5948, 2012.
3. **Rinky Dwivedi**. Flame and Smoke detection in surveillance videos. In *International journal of Innovative science, engineering and technology*, 2019, ISSN 2348 – 7968 Vol. 6, 11.

4. **Rinky Dwivedi.** A step towards Method Configuration from Situational Method Engineering. *Software Engineering International Journal* ISSN-2249-9342.2(1), 51-59, 2012.

#### **Papers Presented in International Conferences**

1. **Rinky Dwivedi** (2022) Predicting 3D Model of Images for Augmented Reality Applications in 7<sup>th</sup> International Conference on Computing in Engineering and Technology, 12-13<sup>th</sup> Feb 2022, Springer, Maharashtra, INDIA
2. **Rinky Dwivedi** (2022) Conversion of Sign Language into Devanagari Text Using CNN. In: Gao, XZ., Tiwari, S., Trivedi, M.C., Singh, P.K., Mishra, K.K. (eds) *Advances in Computational Intelligence and Communication Technology. Lecture Notes in Networks and Systems*, vol 399. Springer, Singapore. [https:// doi.org/10.1007/978-981-16-9756- 2\\_8](https://doi.org/10.1007/978-981-16-9756-2_8) Print ISBN 978-981-16-9755-5.
3. **Rinky Dwivedi** (2021) A wearable sensor-based customized menstrual cycle predictor International conference of innovations and ideas towards patents (ICIIP-2021),30th October 2021.
4. **Rinky Dwivedi** (2021) Survey of smart phone contact-tracking apps architecture, ICICC 2021, 20-21st February 2021.
5. **Rinky Dwivedi** (2020) Optimizing channel allocation in WiMAX MIMO model using fuzzy game theory In 3rd International Conference on Computing Informatics & Networks 2020.
6. **Rinky Dwivedi** (2020) Community based protocol for opportunistic networks In 3<sup>rd</sup> International Conference on Innovative Computing and Communication, Shaheed Sukhdev College of Business Studies, University of Delhi, New Delhi,.Springer and indexed in Springer digital library, 2020.
7. **Rinky Dwivedi** (2016) Edge detection using BAT algorithm. *In proceedings of 3<sup>rd</sup> International conference on computing for sustainable global development. INDIACOM-2016, published by IEEE and indexed in IEEE explore. ISSN 0973-7529; ISBN 978-93-80544-20-5, 16<sup>th</sup> – 18<sup>th</sup> March, 2016, BVICAM, INDIA.*

8. **Rinky Dwivedi** (2016) Empowering agile method-Feature Driven Development by extending it in RUP shell. International conference on computer communication and computational sciences, Published by Springer, IC4S 2016.

### **Papers Published in International Conferences**

1. Gupta D and **Rinky Dwivedi** (2016). Configurable Method Model Of Agile Methods - For Creating Project-Specific Methods. (2016). In Proceedings of the International Conference on Software Engineering Research, ISBN: 1-60132-446-4, CSREA Press, 86-91, 25<sup>th</sup> -28<sup>th</sup> July, 2016, Las Vegas, USA.
2. **Rinky Dwivedi.**, Kaur, J., Rishi, D., Dawra, D. and Nandal, M. (2014). Implementing and Analysing Fuzzy Controller with ACO on Travelling Salesman Problem. In Proc. of Int. Conf. on Advances in Communication, Network, and Computing, CNC, pp. 447-455, 978-81-910691-7-8, Elsevier Track, 21<sup>st</sup>- 22<sup>nd</sup> February, Chennai, INDIA.
3. **Rinky Dwivedi** and Gupta D. (2014). Customizing Agile Methods using Genetic Algorithms. In Proc. of Int. Conf. on Advances in Communication, Network, and Computing, CNC, pp. 730-736, 978-81-910691-7-8, Elsevier Track, 21<sup>st</sup>- 22<sup>nd</sup> February, Chennai, INDIA.
4. Gupta, D., **Rinky Dwivedi.** and Kumar, S. (2012). Domain specific priority-based implementation of mobile services- an agile way. In proceedings of International Conference on Software Engineering Research and Practice 2012, ISBN: 1-60132-231-3, page no. 360-364, CSREA Press, Las Vegas, USA.
5. Gupta D. and **Rinky Dwivedi.** (2008). Multicasting approach in mobile Ad-hoc networks and its Performance analysis. In proceedings of 4th International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM-2008, 978-1-4244-2108-4/08, 1-4, 19<sup>th</sup> – 21<sup>st</sup> September, Dalian, China.

### **Book (s) Authored**

1. **Rinky Dwivedi** Green Computing in Network Security: Energy Efficient Solutions for Business and Home. Taylor & Francis. ISBN: 978-0367-56292-2.
2. Rinky Dwivedi (2022) Recent Advances in IoT and Blockchain technology, Bentham Science Publisher,ISSN:2737-5722 (Print)ISSN:2737-730 (Online)DOI:10.2174/97898150516051220401

3. **Rinky Dwivedi** Multicasting approach for Mobile Ad-hoc networks, published on 15<sup>th</sup> January, 2016, ISSN no. 978-3-659-80010-8 , LAP publishers, Germany
4. **Rinky Dwivedi** Methods and Method Engineering by, published on June, 2016, ISSN no. 978-3-659-82808-9 , LAP publishers, Germany.

### **Book Chapter Published**

1. **Rinky Dwivedi** and Rohilla V., “Empowering agile method-Feature Driven Development by extending it in RUP shell”, In International conference on computer communication and computational sciences, IC4S, published by Springer in Advances in computer and computational sciences, DOI: 10.1007/978-981-10-3770-2, Vol.1 pp 729-739.
2. **Rinky Dwivedi**, K.D. 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.
3. **Rinky Dwivedi**, K.D. Gupta, Green Computing in Network Security: Energy Efficient Solutions for Business and Home. Taylor & Francis. ISBN: 978-0367-56292-2.

### **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.

Memberships of Professional bodies **ISTE Member**

### **Awards and Recognitions**

1. AICTE certified Mentor for inductee teachers.
2. Received Research Fellowship during PH. D from Delhi Technological University
3. Received Letter of Appreciation from Hon'ble President SMES on 2016 for rendering excellent services for the academic growth of the Institute.
4. Editor "Green Computing in Network Security: Energy Efficient Solutions for Business and Home." Taylor & Francis. ISBN: 9780367562922.

### **Other Contributions**

1. HOD–CSE Department (August 2020 –till date)
2. Website In charge (August 2021- till date)
3. Internet In-charge (April 2017-2019)
4. Technical Core committee member International Conference organized in MSIT ICAIA 2020.
5. MSIT Newsletter Reflections, Convener from 2019-21
6. Editor-In-Chief Satyam Journal, 2017-18
7. Convener Annual Tech-Fest 2018
8. ISO auditor
9. Other duties handled: Project Coordinator, Internet Incharge, Mentor, Proctor, Sports and cultural activities, FDP coordinator.
10. Participated in the International Conference on Innovative Computing and Communication (ICICC-2020), as Session chair held on 21-23 Feb 2020.
11. Participated in the International Conference on Artificial Intelligence and Applications 2020(ICAIA) as Session chair held on, 6-7 Feb 2020.
12. Reviewer of various international conference.