# Mohit Mittal

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## Work Experience

Mar 2019-Present\* Postdoctoral Researcher, Kyoto Sangyo University, Japan.

Jan 2019-Mar2019 Assistant Professor, Chitkara University, India

Jul 2018-Jan2019 Assistant Professor, Ajay Kumar Garg Engineering College, India.

Jan 2017-Jul2018 Assistant Professor, Model Institute of Engineering and Technology, India.

Aug 2012-Oct2012 Assistant Professor, Anand College of Engineering and Management, India.

#### Education

2012-2018 Ph.D. (Computer Science)

Gurukul Kangri University, India.

PhD Thesis Study and Analysis of Quality of Services Provisioning In Wireless Sensor Networks Using

Artificial Intelligence Techniques.

2010-2011 Master of Technology (Computer Science and Engineering).

Guru Nanak Dev University, India.

Master Thesis Performance Evaluation of Cryptographic Algorithms.

2006-2010 Bachelor of Technology (Computer Science and Engineering).

Guru Nanak Dev University, India.

2005-2006 12<sup>th</sup> , Kendriya Vidyalaya, India.

2003-2004 10<sup>th</sup>, Kendriya Vidyalaya, India.

## Research Interest

- Social Media Network/ Natural Language Processing
- Machine Learning
- Wireless Sensor Networks

# Membership of Professional Bodies

- ➤ IEEE member, (membership no. 92502289)
- ACM professional member, USA (membership no. 9905195)
- International Society For Research and Development (ISRD).
- International Association of Engineers (IAENG) member. (membership no.197378)

### Reviewer/Editor Board Member

- Organizer and TPC in International Conference on Next-Generation Computing and Information System, held at MIET, Jammu, India on 11-12 December, 2017.
- Reviewer in International Journal of Advanced Intelligence Paradigms, Inderscience Publishers, indexed in SCOPUS (ELSEVIER), ISSN (online):1755-0394| ISSN(print):1755-0386.
- Reviewer in IEEE sponsored, 7<sup>th</sup> International Workshop on Soft Computing Applications (SOFA) 2016, Romania, 24-26 august 2016.
- Reviewer in IEEE sponsored, International Conference on Communication Systems and Network Technologies (CSNT-2016), held at Chitkara University, India on 05-07 March, 2016.

# Workshops

- 2019 Completed e-Learning Course on "Research Ethics", Japan Society for the Promotion of Science.
- 2018 Participated in a workshop on "Machine Learning and Data Analytics with Python", at Ajay Kumar Garg Engineering College, Ghaziabad, India, from 4<sup>th</sup> Dec 2018 to 08<sup>th</sup> Dec 2018.
- 2017 Participated in a workshop on "Big Data", at Graphic Era University, Dehradun, India, from 18<sup>th</sup> Dec 2017 to 23<sup>rd</sup> Dec 2017.
- 2017 Participated in a workshop on "Practical Hands on Machine Learning", at Inmantac Institutes, Ghaziabad, India, from 6<sup>th</sup> July 2017 to 10<sup>th</sup> July 2017.
- 2016 Participated in a workshop on "Simulation in Wireless Sensor Network (WSN Kit)", at MJP Rohilkhand University, Bareilly, UP, India, from 2<sup>nd</sup> May 2016 to 7<sup>th</sup> May 2016.
- 2014 Participated in the one day expert session workshop on cloud computing "cloud Sim" in FET organised by department of computer science and Computer Society of India (CSI) (Haridwar Chapter), Gurukul Kangri Vishwavidyalaya, Haridwar, october 2014.

## Research Publications

#### **Recent Publications (2019-)**

- [C1] Yuanyuan Wang, Panote Siriaraya, Mohit Mittal, Huaze Xie and Yukiko Kawai "Understanding Multilingual Correlation of Geo-tagged Tweets for POI Recommendation", W2GIS,2020, China (Accepted).
- [C2] Mohit Mittal, Panote Siriaraya, Chonho Lee, Yukiko Kawai, Takashi Yoshikawa and Shinji Shimojo, "Accurate Spatial Mapping of Social Media with Physical Locations", IEEE BSD, Big Data, Los Angeles, USA, 9-12 Dec 2019.
- [C2] Panote Siriaraya, Yihong Zhang, Yuanyan Wang, Yukiko Kawai, Mohit Mittal, Peter Jeszenszky and Adam Jatowt, "Witnessing Crime through Tweets: A Crime Investigation Tool based on Social Media", 27<sup>th</sup> ACM SIGSPATIAL, Chicago, Illinois, USA, 5-8 Nov 2019.
- [C3] Takumi Kiriu, Mohit Mittal, Panote Siriaraya, Yukiko Kawai and Shinsuke Nakajima, "Development of an Acoustic AR Gamification System to Support Physical Exercise", ACM Multimedia, Nice, France, Oct 21-25, 2019.
- [J1] Mohit Mittal, Celestine Iwendi, Suleman Khan, Abdul Rehman, "Analysis of Security and Energy Efficiency for Shortest Route Discovery in LEACH Protocol Using Levenberg-Marquardt Neural Network and Gated Recurrent Unit for IDS", ETT, Wiley, 2020. (Accepted)

- [J2] Abdul Rehman Javed, Muhammad Usman Sarwar, ,Suleman Khan,Mohit Mittal, Celestine Iwendi, Neeraj kumar, "Analyzing the Effectiveness and Contribution of each Axis of Tri-Axial Accelerometer Sensor for Accurate Activity Recognition", Sensor, MDPI,April, 2020.
- [J3] Celestine Iwendi, , Suleman Khan, Joseph Henry Anajemba, Mohit Mittal , Mamdouh Alenezi, "The Use of Ensemble Models for Multiple Class and Binary Class Classification for improving Intrusion Detection System", Sensor, MDPI, 2020 (Accepted)
- [J4] J. H. Anajemba, T. Yue, C. Iwendi, M. Alenezi and Mohit Mittal, "Optimal Cooperative Offloading Scheme For Energy Efficient Multi-Access Edge Computation", IEEE Access, 2020.
- [J5] Satendra Kumar, Rajkumar Bhatia, Mohit Mittal,"A Hybrid Approach to perform Test Case Prioritization and Reduction for Software Product Line testing", International Journal of Vehicle Autonomous Systems, 2020. (Accepted)
- [J6] Mohit Mittal and Lalit Kumar Saraswat, "Energy Evaluation of Sensor Protocol based on Al Techniques using CRAWDAD Data", International Journal of Recent Technology and Engineering (IJRTE), vol 8, issue-2, 2019.
- [J7] Mohit Mittal and Celestine Iwendi, "A Survey on Energy-Aware Wireless Sensor Routing Protocols" EAI Endorsed Transactions on Energy Web, 2019.

#### Past Publications (2012-2018)

#### National/International Journals

- [J1] M. Mittal, "Analysis of Energy Efficiency Based on Shortest Route Discovery in Wireless Sensor Network", *International Journal of Advanced Intelligence Paradigms*, Jan, 2017.
- [J2] M. Mittal and K. Kumar, "Energy Efficient Homogeneous Wireless Sensor Network Using Self- Organizing Map (SOM) Neural Networks," *IEEE, African Journal of Computing & ICT*, Vol 8. No. 1, pp. 179-184, 2015, ISSN: 2006-1781.
- [J3] M. Mittal and Krishan Kumar, "Quality of Services Provisioning in Wireless Sensor Networks using Artificial Neural Network: A Survey", *International Journal of Computer Application (IJCA)*, pp. 28-40, May 2015, ISSN: 0975-8887.
- [J4] M. Mittal and K. Kumar, "Delay Prediction in Wireless Sensor Network Routing Using ART1 Neural Network", *IEEE, African Journal of Computing & ICT*, Vol 8. No. 3, pp. 175-180, 2015.
- [J5] Mohit Mittal and Krishan Kumar, "Performance Improvement of Heterogeneous Wireless Sensor Network Using Self Organizing Feature Map (SOFM) Neural Network" International Journal of Communication Technology for Social Networking Services (IJCTSNS), Vol.2, No.1, pp.13-28, 2014.
- [J6] Mohit Mittal and Tarun Bhalla, "MOBILE AGENT", International Journal of Engineering Research & Technology (IJERT), Vol. 1 Issue 8, pp. 1-7, 2012, ISSN: 2278-0181.
- [J7] Mohit Mittal and Tarun Bhalla, "Sockets and Socket Address Structure", International Journal of Engineering Research & Technology (IJERT), Vol. 1 Issue 8, 2012, pp. 1-5, ISSN: 2278-0181
- [J8] Mohit Mittal and Tarun Bhalla, "Multi-Layer Perceptron Network For Handwritting English Character Recognition," *International Journal of Computer Science And Technology* (*IJCST*), Vol. 3, Issue 4, 2012, pp. 525-529, ISSN: 0976-8491 (Online) | 2229-4333 (Print).

- [J9] Mohit Mittal, "Performance Evaluation On Cryptographic Algorithms," *International Journal of Computer Application (IJCA)*, pp. 1-6, 2012,ISSN: 0975-8887
- [J10] Yashika Goyal, Yuraj Monga and Mohit Mittal, "Study and Analytical Perspective on Big Data", *Int. J. Computational Systems Engineering (IJCSysE)*, Vol. 3, No. 4, 2017.
- [J11] Payal Saha, Mohit Mittal, Shreya Gupta and Marwa Sharawi, "Big Data Trends and Analytics: A Survey", *International Journal of Computer Applications*, vol. 180, no. 8, pp. 9-20, 2017.
- [J12] V.K. Yadav S. Kumar and M. Mittal, "Prediction of Software Maintenance Effort of Object Oriented Metrics Based Commercial Systems," *IEEE, African Journal of Computing & ICT*, Vol 8. No. 1, pp. 163-172, 2015, ISSN: 2006-1781.
- [J13] S. Gangwar, K. Kumar and M. Mittal, "Cluster Head Selection in Mobile Ad-hoc Network (MANET) Using ART1 Neural Network," *IEEE, African Journal of Computing & ICT*, Vol 8. No. 1, pp. 197-204, 2015, ISSN: 2006-1781
- [J14] Tarun Bhalla and Mohit Mittal," Profiling On Superscalar Pipelining Architecture And Multi-Pipeline Scheduling Policies," *International Journal of Computer and Electronics Research*, Volume 1, Issue 3, 2012, Pp. 88-92, ISSN: 2278-5795.
- [J15] Mohit Mittal, "Energy Evaluation of Sensor Protocols Based on Artificial Neural Network Approach", JK Journal of Architecture and Engineering Sciences, pp. 22-32, Vol. 1, Issue 1, 2018.
- [J16] Aakriti Sharma, S. Gupta and Mohit Mittal, "A Conceptual Review on Smart Homes", NCETC, 2018.
- [J17] D. Kumari, R. Pandita and Mohit Mittal, "An Agricultural Perspective in Internet of Things", NCETC,2018.

#### International Conferences

- [C1] Mohit Mittal, JH Anajemba, Celestine Iwendi and Lalit Kumar Saraswat, "A Neuro-Fuzzy Approach for Intrusion Detection in Energy Efficient Sensor Routing ", 4<sup>th</sup> International conference on Internet of Things:Smart Innovation and Usage (IoT-SIU), IEEE, 2019.
- [C2] Mohit Mittal and Satendra Kumar, "Performance Evaluation of LEACH Protocol Based on Data Clustering Algorithms", ICCCN, Springer, India, 2018
- [C3] Mohit Mittal and Shafalika Vijayal, "Detection of Attacks in IoT Based on Ontology Using SPARQL", IEEE, CSNT 2017, India, 2017.
- [C4] Mohit Mittal, Monika Rani, Seshadhri Srinivasan and O. P. Vyas, "Type-2 Fuzzy Ontology-Based Multi-Agents system for Wireless Sensor Network", *IEEE Region 10 Conference (TENCON)*, Penang, Malaysia, 2017.
- [C5] Mohit Mittal and Krishan Kumar, "Data Clustering In Wireless Sensor Network Implemented On Self Organization Feature Map (SOFM) Neural Network", IEEE, ICCCA, 2016.
- [C6] Mohit Mittal and Krishan Kumar, "Network Lifetime Enhancement of Homogeneous Sensor Network Using ART1 Neural Network,", *IEEE, Sixth CICN*, pp. 472-475, 2014.
- [C7] Amarjeet Singh, Tripatdeep Singh, Mohit Mittal and Krishan Kumar, "Performance Improvement in AODV Routing Protocol with Artificial Intelligence", 3rd International Conference on "Computing for Sustainable Global Development, BVICAM, New Delhi, pp. 49-53, 2016

- [C8] Shreya Gupta, Mohit Mittal and Anupama Padha, "Predictive Analytics of Sensor Data Based on Supervised Machine Leaning Algorithms", IEEE International Conference on Next Generation Computing & Information System 2017", Jammu, 2017
- [C9] Varsha Mittal, Lata Nautiyal and Mohit Mittal, "Cloud Testing-The Future of Contemporary Software Testing", IEEE, International Conference on Next Generation Computing & Information System 2017", Jammu, 2017.
- [C10] Shafalika Vijayal and Mohit Mittal, "Intrusion Detection in IoT based on Neuro-Fuzzy Approach", published in proceedings of International conference on Machine learning and Computational Intelligence, India, 2017.
- [C11] Krishan Kumar and Mohit Mittal, "E-banking security and challenges: A survey," 2<sup>nd</sup> International conference on paradigm shift in innovative business management, VIPSAR, Indore (M.P), 2013.

#### **Book Chapters**

- [B1] Mohit Mittal and Robin Singh Bhadoria, "Aspect of ESB with Wireless Sensor Network", Exploring Enterprise Service Bus in the Service-Oriented Architecture Paradigm,IGIglobal publications, pages 319, ISBN: 9781522521570.
- [B2] Siddharth Prasad, Robin Singh Bhadoria and Mohit Mittal, "Data Processing in IoT using Enterprise Service Bus", The Internet of Things: Foundation for Smart Cities, eHealth and Ubiquitous Computing, CRC press, Taylor and Francis Group, Oct. 2017, ISBN: 9781498789028.

### Personal Profile

Father's name –Sh. Gopal Krishan Mittal
Date of Birth – 02, May 1988
Marital Status - Single
Languages Known - Hindi & English
Nationality – Indian