

# Curriculum vitae

## PERSONAL INFORMATION

### Amit Kumar Tyagi

(B.Tech, M.Tech, Ph.D, M.I.E.E.E.,)



Sex: Male | Date of Birth: 05/08/1988 | Nationality: Indian| Languages: Hindi, English and French



Village-Achheja, Delhi Road Hapur, Uttar Pradesh - 245101, India.



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- ❖ RESEARCHER ID (web): M-6418-2018,
- ❖ ORCID ID: 0000-0003-2657-8700,
- ❖ SCOPUS ID: 58100922500,
- ❖ Google scholar ID: RIgaVmUAAAAJ&hl,
- ❖ Microsoft Academic ID: 2959147272
- ❖ Web of Science Researcher ID: AHA-3329-2022

### Summary:

- ❖ International Journal Published: 40 (SCI: 10, Scopus: 19, Web of Science: 08, Non-Scopus: 03)
- ❖ Paper Presented in International Conferences: 80 (Scopus: 60, Web of Science: 13, Non-Scopus: 7)
- ❖ Chapter Published: 200 (Scopus: 130, Web of Science: 55, ISSN/ ISBN: 15)
- ❖ Edited Book: 35+
- ❖ Authored Book: 05
- ❖ Ph.D Guided: 01
- ❖ Student Guided: 10 (PG level: 07, UG level: 4)
- ❖ Patent filed (Published/ Granted): 25+ (Indian: 15+, International: 10)
- ❖ Total citations: 5000+ (Google Scholar H-Index: 40, Scopus H-Index: 3)0

**Current Position:** Assistant Professor, Department of Fashion Technology, National Institute of Fashion Technology, New Delhi, 110016, Delhi, India.

## Personal Profile

Amit Kumar Tyagi is working as an Assistant Professor, Department of Fashion Technology, National Institute of Fashion Technology, New Delhi, 110016, Delhi, India. About his education, he received his Ph.D. Degree in 2018 from Pondicherry Central University, India. He has worked as Assistant Professor (Senior Grade-2), and Senior Researcher at School of Computer Science and Engineering, Vellore Institute of Technology (VIT), Chennai Campus, Chennai, Tamil Nadu, India since June 2019 to November 2022. He has also worked as an Assistant Professor and Head-Research, Lingaya's Vidyapeeth (formerly known as Lingaya's University), Faridabad, Haryana, India in 2018-2019. His supervision experience includes more than 10 Bachelor's, Masters' dissertations and one PhD thesis. He has contributed to several projects such as "AARIN" and "P3- Block" to address some of the open issues related to the privacy breaches in Vehicular Applications (such as Parking) and Medical Cyber Physical Systems (MCPS).

He has published over 175+ papers (according to Scopus Database) in refereed high impact journals, conferences and books, and some of his articles awarded best paper awards. Also, he has filed more than 25 patents (Nationally and Internationally) in the area of Deep Learning, Internet of Things, CyberPhysical Systems and Computer Vision. He has edited more than 20 books for IET, Elsevier, Springer, CRC Press, etc. Also, he has authored 4 Books on Internet of Things, Intelligent Transportation Systems, Vehicular Ad-hoc Network with BPB Publication, Springer and IET publisher.

He is a Winner of Faculty Research Award (FRA) for the Year of 2019, 2020 and 2021 given by Vellore Institute of Technology, Chennai, Tamil Nadu, India. Recently, he has been awarded **Best paper award** for paper titled "A Novel Feature Extractor Based on the Modified Approach of Histogram of oriented Gradient", ICCSA 2020, Italy (Europe). His current research focuses on Next Generation Machine Based Communications, Blockchain Technology, Smart and Secure Computing and Privacy. He is a regular member of the ACM, IEEE, MIR Labs, Ramanujan Mathematical Society, Cryptology Research Society, and Universal Scientific Education and Research Network, CSI and ISTE.

## Web of Science Profile:

<https://www.webofscience.com/wos/woscc/full-record/WOS:000876136000001>

## Scopus Profile:

<https://www.scopus.com/authid/detail.uri?authorId=58100922500>

## Google Scholar's Profile

<https://scholar.google.co.in/citations?user=RIgaVmUAAAAJ&hl=en>

## Profile Weblink: [www.ak-tyagi.com](http://www.ak-tyagi.com)

## Education (Regular only)

2013-2018                      *Ph.D. in Computer Science and Engineering, Pondicherry Engineering College, Pondicherry, India, Supervisor: Prof. N. Sreenath*

**Thesis Title: SATA Framework to Enhance Privacy for Location Based Services in Vehicular Ad-Hoc Networks (Date of Awarded: 11.09.2018).**

2010-2012                      *M.Tech. in Computer Science and Engineering, Pondicherry University (A Central*

**University) Pondicherry, India**

**Thesis Title: Detection of Fast Flux Network Based Social Bot Using Analysis Based Techniques**

**2005-2009** *B.Tech. in Computer Science and Engineering, Meerut Institute of Engineering and Technology, Meerut, India*

### Experience

**2022- Till date** *Assistant Professor, National Institute of Fashion Technology, New Delhi*

**2019-2022** *Assistant Professor, Vellore Institute of Technology, Chennai*

**2018-2019** *Assistant Professor and Head- Research, Lingaya's Vidyapeeth Faridabad*

**2012-2013** *Assistant Professor, Lord Krishna College of Engineering, Ghaziabad*

**2009-2010** *Assistant Professor, Lord Krishna College of Engineering, Ghaziabad*

### Other Education

- GATE 2009, and 2016
- UGC-CBSE-NET-2017 and 2019.
- ICAR-ASRB-NET-2018
- TN-SET-2016
- IBPS-PO-MT-2011
- French Certificate Course

### Research Interests

- Smart and Secure Computing (e.g., Next Generation Machine Based Communications),
- Network and Information Security (including Cyber Security and Blockchain),
- Privacy (including Genomic and Data),
- Theoretical Computer Science

### Awards/ Honour

- **Faculty Research Award** for the Year 2019-2020 by Vellore Institute of Technology, Chennai, Tamilnadu, India, (Award money: 20000 Indian Rupees).
- **Faculty Research Award** for the Year 2020-2021 by Vellore Institute of Technology, Chennai, Tamilnadu, India, (Award money: 20000 Indian Rupees).
- **Faculty Research Award** for the Year 2021-2022 by Vellore Institute of Technology, Chennai, Tamilnadu, India, (Award money: 20000 Indian Rupees).
- **Best Paper Award**, in ICCSA 2020 (Italy, Europe) for Research Article titled "A Novel Feature Extractor Based on the Modified Approach of Histogram of oriented Gradient".
- Recipient of **NF-PwD** Fellowship for pursuing Ph.D. in year 2013.
- **Best Undergraduate Thesis Award**, Dr. A.P.J. Abdul Kalam University (Formerly U.P.T.U), Lucknow 2009 (published by **LAP LAMBERT Academic Publishing, ISBN: 978-3-330-00604-1**).

## Book Published

### Authored

- **Amit Kumar Tyagi**, Know your Technical Skills, Amazon Independent Publishing, 2016 and 2018.
- **Amit Kumar Tyagi**, Internet of Things: Theory and Practice, BPB Publications (Asia's largest publishers of Computer and IT books), 2022, ISBN: 9789355512437.
- **Amit Kumar Tyagi**, Shaveta Malik, Vehicular Ad-Hoc Networks and Emerging Technologies for Road Vehicle Automation, IET 2022, ISBN-13: 978-1-83953-428-7.
- **Amit Kumar Tyagi**, N. Sreenath, Intelligent Transportation Systems: Theory and Practice, Springer, 2023, ISBN: 978-981-19-7622-3
- **Amit Kumar Tyagi**, Advanced Machine Learning: Fundamentals and Algorithms, BPB Publications (Asia's largest publishers of Computer and IT books), 2024.
- **Amit Kumar Tyagi**, Shrikant Tiwari, Shivani Gupta, 6G-Enabled Technologies for Next Generation: Fundamentals, Applications, Analysis and Challenges, John Wiley and Sons, 2024.

### Edited

- **Amit Kumar Tyagi**, Gillala Rekha, N. Sreenath, Opportunities and Challenges for Blockchain Technology in Autonomous Vehicles, IGI Global, USA, August, 2020, Pages: 316, DOI: 10.4018/978-1-7998-3295-9, ISBN13: 9781799832959
- **Amit Kumar Tyagi**, Multimedia and Sensory Input for Augmented, Mixed, and Virtual Reality, January, 2021, IGI Global, DOI: 10.4018/978-1-7998-4703-8, ISBN13: 9781799847038
- **Amit Kumar Tyagi**, Data Science and Data Analytics: Opportunities and Challenges, September 23, 2021, ISBN 9780367628826.
- **Amit Kumar Tyagi**, Computational Analysis and Understanding of Deep Learning for Medical Care: Principles, Methods, and Applications, 2021, ISBN: 9781119785729.
- **Amit Kumar Tyagi**, Ajith Abraham, Arturas Kaklauskas, Intelligent Interactive Multimedia Systems for e-Healthcare Applications, Springer 2021, ISBN: 978-981-16-6542-4.
- Sanjay Misra, **Amit Kumar Tyagi**, Artificial Intelligence for Cyber Security: Methods, Issues and Possible Horizons or Opportunities, Springer, 2021, ISBN 978-3-030-72236-4.
- **Amit Kumar Tyagi**, Ajith Abraham, Recent Trends in Blockchain for Information Systems Security and Privacy, CRC, 2021, ISBN 9780367689438.
- Shaveta Malik, Rohit Bansal, **Amit Kumar Tyagi**, Impact and Role of Digital Technologies in Adolescent Lives, IGI Global, 2021, ISBN13: 9781799883180.
- Sanjay Misra, **Amit Kumar Tyagi**, Vincenzo Piuri, Lalit Garg, Artificial Intelligence for Cloud and Edge Computing: Concepts and Paradigms, Springer, 2022, ISBN: 978-3-030-80820-4.
- Sanjay Misra, **Amit Kumar Tyagi**, Blockchain Applications in the Smart Era, EAI Springer, 2022, ISBN 978-3-030-89546-4.
- **Amit Kumar Tyagi**, N Sreenath, Handbook of Research of Internet of Things and Cyber-Physical Systems: An Integrative Approach to an Interconnected Future, Apple Academic Press, Exclusive worldwide distribution by CRC Press (Taylor & Francis Group), 2022, ISBN: 978-1-77463-834-7.
- Shaveta Malik, **Amit Kumar Tyagi**, Intelligent Interactive Multimedia Systems for e-Healthcare Applications, Apple Academic Press, Exclusive world-wide distribution by CRC Press (Taylor & Francis Group), 2022, ISBN: 9781774910221.

- **Amit Kumar Tyagi**, Ajith Abraham, A. Kaklauskas, N. Sreenath, Gillala Rekha, Shaveta Malik, Security and Privacy-Preserving Techniques in Wireless Robotics, CRC, 2022, ISBN: 9780367741730.
- Archana Mire, Shaveta Malik, **Amit Kumar Tyagi**, Advanced Analytics and Deep Learning Models, Wiley Scrivener 2022, ISBN: 9781119791751.
- **Amit Kumar Tyagi**, Ajith Abraham, Recurrent Neural Networks: Concepts and Applications, CRC Press, DOI: <https://doi.org/10.1201/9781003307822>, eBook ISBN: 9781003307822
- **Amit Kumar Tyagi**, Ajith Abraham, Farookh Khadeer Hussain, Habil Arturas Kaklauskas, and R. Jagadeesh Kannan, Machine Learning, Blockchain Technologies and Big Data Analytics for IoTs: Methods, Technologies and Applications, IET, 2022, ISBN: 9781839533396 (**in Press**).
- **Amit Kumar Tyagi**, Handbook of Research on Technical, *Privacy, and* Security Challenges in a Modern World, IGI Global, 2023, DOI: 10.4018/978-1-6684-5250-9, ISBN13: 9781668452509
- **Amit Kumar Tyagi**, Using Multimedia Systems, Tools, and Technologies for Smart Healthcare Services, IGI Global, 2023, DOI: 10.4018/978-1-6684-5741-2, ISBN13: 9781668457412
- **Amit Kumar Tyagi**, Ajith Abraham, Data Science for Genomics, Elsevier, 2022, ISBN: 9780323983525.
- **Amit Kumar Tyagi**, Handbook of Research on Quantum Computing for Smart Environments, IGI Global, 2023, DOI: 10.4018/978-1-6684-6697-1, ISBN: 9781668466971.
- **Amit Kumar Tyagi**, Privacy Preservation of Genomic and Medical Data, Wiley Scrivener 2023.
- **Amit Kumar Tyagi**, Automated Secure Computing for Next-Generation Systems, Wiley Scrivener 2023.
- Lakshmi D., **Amit Kumar Tyagi**, Privacy Preservation and Secured Data Storage in Cloud Computing, IGI Global USA, ISBN13: 9798369305935.
- D. Lakshmi, **Amit Kumar Tyagi**, Emerging Technologies and Security in Cloud Computing, 2024, IGI Global USA, ISBN13: 9798369320815.
- P Baby Maruthi, Smirti P, **Amit Kumar Tyagi**, Machine Learning Algorithms Using Scikit and TensorFlow Environments, IGI Global, 2023. ISBN 13: 9781668485316
- Mahmoud Ragab, **Amit Kumar Tyagi**, Abdullah Saad Al-Malaise Al-Ghamdi, and Swetta Kukreja, Artificial Intelligence Applied to Industry 4.0, Wiley 2024, ISBN: 978-1-394-21613-0.
- Tuan A N, Yasin, **Amit Kumar Tyagi**, Blockchain Technology in the Automotive Industry, CRC Press 2024, ISBN: 9781032584867.
- Avinash Kumar Sharma, Nitin Chanderwal, Shobhit Tyagi, Prashant Upadhyay, **Amit Kumar Tyagi**, Enhancing Medical Imaging with Emerging Technologies, IGI Global, 2024, ISBN13: 9798369352618
- **Amit Kumar Tyagi**, Shrikant Tiwari, Sayed S, Industry 4.0, Smart Manufacturing, and Industrial Engineering: Challenges and Opportunities, CRC Press, 2024.
- **Amit Kumar Tyagi**, Shrikant Tiwari, Senthil Kumar A, Artificial Intelligence (AI) Enabled Digital Twin for Smart Manufacturing, Wiley Scrivener 2024.
- **Amit Kumar Tyagi**, Digital Twin and Blockchain for smart cities, Wiley Scrivener 2024.
- **Amit Kumar Tyagi**, Artificial Intelligence Enabled Blockchain Technology and Digital Twin for Smart Hospitals, Wiley Scrivener 2024.
- **Amit Kumar Tyagi**, Shrikant Tiwari, Gulshan Soni, Data Analytics and Artificial Intelligence for Predictive Maintenance in Manufacturing, CRC Press, 2024.

- **Amit Kumar Tyagi**, Shrikant Tiwari, Nagaraj S V, Quantum Computing: The Future of Information Processing, CRC Press, 2024.
- **Amit Kumar Tyagi**, Shrikant Tiwari, AI and Blockchain in Smart Grids: Fundamentals, Methods, and Applications, CRC Press, 2024.
- **Amit Kumar Tyagi**, Shrikant Tiwari, Blockchain and Digital Twin Applications in Smart Agriculture, CRC Press, 2024.
- **Amit Kumar Tyagi**, Shrikant Tiwari, Next Generation Data Science and Blockchain Technology for Society 5.0: Concepts and Paradigms, Elsevier 2025.

#### Postdocs

- None

#### PhD Students\*

- Banita
- Mr. A Mohan Krishna, Registration No: 16PHCS003 (W)

#### P.G Students (Guided)

- Shashvi Mishra (19MCA1122) - Project Title - “Cyberbullying: Effect on Youth”
- Sakshi Purwar (19MCA1122) - Project Title - “Fake News Detection Using Machine Learning”
- Yetukuri Shiva Gopi (15MIS1166) – Project Title - “MyLudo”
- Mareedu Vamsi Krishna (15MIS1160), Project Title – “Programmable Automotive Electronic Break Out Box for Fault Injections”
- Rohit Arya (20MCS1009), Project Title – “MRI Brain Image Classification Using Various Deep Learning Architectures”
- Rohit Rai (20 MCA1100), Project Title – “Communications security in Vehicular Adhoc Network”
- Akshita Tyagi (21MCA1065), Project Title – “Using Deep Learning Techniques for Text Analysis”

#### U.G Students (Guided)

- Srii Laasya Kanuru (16BCE123), Project Title – “Smart Farming using Machine Learning”
- Aparna Balasubramniam (18BCE1058), Project Title – “Self-driving car simulation with reinforcement learning”
- Venkat Ragavan S (18BCE1132), Project Title – “Features and Improvements for Azure Load Test Service”
- Anmol Dubey (18BCE1139), Project Title – “Utterance Categorization Under Project Cirrus”

#### Projects

##### Completed

- AARIN: Affordable, Accurate, Reliable and INnovative Mechanism to Protect a Medical Cyber-Physical System using Blockchain Technology. (**Final Work Published in Elsevier**) (Seed Grant: 1 Lakhs Rupees).
- P3-Block: Privacy Preserving Parking to Vehicle Users using Blockchain Technology. (**Final Work Published in European Conference, Springer**), (Seed Grant: 1.5 Lakhs Rupees).

## Ongoing

None

## Patents

### National

- Patent Title 1: IDS-Blockchain Technology: Infrastructure Data Supply Chain Control Through Blockchain Technology (Patent no. 202041006251).
- Patent Title 2: ID Tracking To 4-G Mobile with Security Using Deep Learning Programming (Patent no. 202021018871) **(Under Examination)**
- Patent Title 3- IoT Based-Detection: Intelligent Vehicle Accident Detection using Machine Learning (Automatically). (Patent no. 202041019666)
- Patent Title 4 – ABIE-Voting System: Aadhaar and Blockchain Intelligent Electronic Voting System (Patent no. 202021027657).
- Patent Title 5: Aadhaar Based Electoral System for Indians Citizens (Patent no. 202041019650).
- Patent Title 6: Aadhaar Transports Security: A Novel Approach to Provide Reliable and Secure Services in Public Transports Through Aadhaar (Patent no. 202041026640).
- Patent Title 7: Water Management Technology: Under Smart City Waste Water Management Using IoT- Based, Machine Learning Technology (Patent no 202041055915). **(Under Examination)**
- Patent Title 8: Single Debit cum Credit Card for Making Money Transactions (Patent no. 202141007247) **(Under Examination)**
- Patent Title 9: Implementing Blockchain Technology in Automated Teller Machine (ATM) based Electronic Voting Machine (Patent no 202141046135) **(Granted)**.
- Patent Title 10: Data Link Bridge (DLB): An Algorithm for Securing the data from Cryptanalysis (Patent no. 202141051540) **(Under Examination)**
- Patent Title 11: E-Authentication system using Eye Blinking and Deep Learning (Patent no. 202211016237) **(Under Examination)**
- Patent Title 12: Mobile Based Application for Automatic Irrigation and Fertigation (Patent no. 202241020224)
- Patent Title 13: Automatic Railway Crossing - Gate Controller Using Mobile Text Messages (Patent no. 202241021998)
- Patent Title 14: Neural network based Facial Recognition using Deep Learning (Patent no. 202311025684) **(Under Examination)**
- Patent Title 15: Managing a single debit cum credit, etc., card transactions through an Android Application, (Patent no. 202411013371), **(Under Examination)**.
- Patent Title 16: Maternity Support Garment with Posture Detection For Pregnant Women Using IoT Devices, (Patent no. 202411013372), **(Under Examination)**.
- Patent Title 17: *Identifying Fraud in Banking using Machine learning Techniques* (Patent no. 202421005507), **(Under Examination)**.

### International

#### USA

- Patent Title 1: System for medical diagnosis using artificial intelligence and deep learning approach, Application no. 17/806,573, Filed on June 13, 2022, Published Oct. 6, 2022. (Published).



- Patent Title 2: Method for COVID 19 Detection to Spread Prevention and Medical Assistance Using Machine Learning (Patent no. US17/551,376). Filed on Dec 15, 2021. Published Apr 7, 2022. (Published).
- Patent Title 3: Symbol Recognition system: An Image Recognition Algorithm to process Images and to identify Symbols using AI-Based Programming (Patent no. US17392619), (Published).

### Australia

- Patent Title 1: IUIT- Traffic Control Alert: Intelligent Traffic Control and Alert Using IoT-Based Technology (Patent no. 2021100091) **(Granted)**.
- Patent Title 2: Intelligent-SIM: Multiple Company Mobile Number installed in Single SIM (Patent no. 2021101069) **(Granted)**.
- Patent Title 3: Intelligent Wi-Fi Mobile Battery Charging using Beagle bone kit (Patent No. 2021102295) **(Granted)**.

### Germany

- Patent Title 1: Neural Networks for Handwriting Detection System Using Brain Net and AI-Algorithm (Patent no.202022101842.1) **(Granted)**.

### United Kingdom

- Machine Learning Based Epizootic Ulcerative Syndrome Fish Disease Detection System. Patent no. 6300172 **(Granted)**.

### Journals (SCI/ SCIE/ Scopus/ WoS Indexed)

- **Amit Kumar Tyagi**, G. Aghila, “*A Wide Scale Survey on Botnet*”, International Journal of Computer Applications (ISSN: 0975-8887), Volume 34, No.9, pp. 9-22, November 2011, <https://doi.org/10.1016/j.iotcps.2021.12.002>, **(Scopus)**.
- **Amit Kumar Tyagi**, N. Sreenath, “*Future Challenging Issues in Location Based Services*”, International Journal of Computer Applications (ISSN: 0975 –8887), Volume 114, No. 5, pp.51-56, March 2015, **(Scopus)**.
- **Amit Kumar Tyagi**, N. Sreenath, “*A Comparative Study on Privacy Preserving Techniques for Location Based Services*”, British Journal of Mathematics and Computer Science (ISSN: 2231-0851), Volume 10, No.4, pp. 1-25, July 2015, 10.9734/BJMCS/2015/16995
- **Amit Kumar Tyagi**, N. Sreenath, “*Preserving Location Privacy in Location Based Services against Sybil Attacks*”, International Journal of Security and Its Applications (ISSN: 1738-9976 (Print), ISSN: 2207-9629 (Online)), Volume 9, No.12, pp.189-210, December 2015, 10.14257/ijcia.2015.9.12.18, **(Scopus)**.
- **Amit Kumar Tyagi**, N. Sreenath, “*Providing Together Security, Location Privacy and Trust for Moving Objects*”, International Journal of Hybrid Information Technology (ISSN: 1738-9968), Volume 9, No.3, pp. 221-240, March 2016, DOI: 10.14257/ijhit.2016.9.3.21, **(Scopus)**.
- **Amit Kumar Tyagi**, “*Cyber Physical Systems (CPSs) – Opportunities and Challenges for Improving Cyber Security*”, International Journal of Computer Applications (ISSN: 0975 – 8887) Volume 137, No.14, pp. 19-27, March 2016, 10.5120/ijca2016908877
- **Amit Kumar Tyagi**, A. Mohan Krishna, Shaveta Malik, Meghna Manoj Nair, Sreenath Niladhuri, “*Never Trust Anyone: Trust-Privacy Trade-Offs in Vehicular Ad hoc Network*”, British Journal of Mathematics and Computer Science (ISSN: 2231-0851), Volume 19, No. 6,



pp.1-23, November 2016, DOI: 10.25046/aj050150, **(Scopus)**.

- **Amit Kumar Tyagi**, N. Sreenath, “*ISPAS: An Intelligent, Smart Parking Allotment System for Travelling Vehicles in Urban Areas*”, International Journal of Security and Its Applications (IJSIA), Volume 11, No.12, pp. 45-64, December 2017, DOI:10.14257/ijisia.2017.11.12.05, **(Scopus)**.
- Gillala Rekha, **Amit Kumar Tyagi**, and V. Krishna Reddy, “*A Wide Scale Classification of Class Imbalance Problem and its Solutions: A Systematic Literature Review*”, Journal of Computer Science, Vol.15, No. 7, 2019, ISSN Print: 1549-3636, pp. 886-929, **(Scopus)**.
- Gillala Rekha, **Amit Kumar Tyagi**, and V Krishna Reddy, “*Solving Class Imbalance Problem Using Bagging, Boosting Techniques, with and without Noise Filter Method*”, International Journal of Hybrid Intelligent Systems, vol. 15, no. 2, pp. 67-76, 2019, DOI: 10.3233/HIS-190261, **(Web of Science)**.
- Gillala Rekha, V. Krishna Reddy and **Amit Kumar Tyagi**, “*A Novel Approach for Solving Skewed Classification Problem using Cluster Based Ensemble Approach*”, Mathematical Foundations of Computing, February 2020, Vol. 3, no. 1, pp. 1-9. DOI: 10.3934/mfc.2020001, **(Web of Science)**.
- **Amit Kumar Tyagi**, A. Mohan Krishna, Shaveta Malik, Meghna M Nair, N Sreenath, “*Trust and Reputation Mechanisms in Vehicular Ad Hoc Networks: A Systematic Review*”, Advances in Science, Technology and Engineering Systems Journal, Volume 5, Issue 1, pp. 387-402, ISSN: 2415 -6698, 2020, DOI: 10.25046/aj050150, **(Scopus)**.
- Gillala Rekha, Shaveta Malik, Meghna Manoj Nair, and **Amit Kumar Tyagi**, “*Intrusion Detection in Cyber Security: Role of Machine Learning and Data Mining in Cyber Security*”, ASTESJ, Volume 5, Issue 3, pp. 72-81, ISSN: 2415 - 6698, 2020, DOI: 10.25046/aj050310, **(Scopus)**.
- **Amit Kumar Tyagi**, Ajith Abraham “*Internet of Things (IoTs): Future Challenging Issues and Possible Research Directions*”, International Journal of Computer Information Systems and Industrial Management Applications, ISSN 2150-7988, Volume 12 (2020) pp. 113-124, **(Scopus)**.
- Gillala Rekha, V. Krishna Reddy, and **Amit Kumar Tyagi**, “*CIRUS - Critical Instances removal-based Under-Sampling - A solution for Class Imbalance*”, International Journal of Hybrid Intelligent Systems, Vol. 16, no. 2, pp. 55-66, 2020, ISSN: 1875-8819, DOI: 10.3233/HIS-200279, **(Web of Science)**.
- **Amit Kumar Tyagi**, Meghna Manoj Nair, N Sreenath, and Ajith Abraham, “*Security, Privacy Research issues in Various Computing Platforms: A Survey and the Road Ahead*”, Journal of Information Assurance and Security (JIAS), 2020, Vol. 15 Issue 1, p1-16, ISSN 1554-1010 **(Web of Science)**.
- Gillala Rekha, V. Krishna Reddy, and **Amit Kumar Tyagi**, “*KDOS - Kernel Density based Over Sampling - A Solution to Skewed Class Distribution*”, 2020, Journal of Information Assurance and Security (JIAS), Vol. 15 Issue 2, pp. 44-52, 2020, DOI: 10.1016/j.ins.2019.10.017, ISSN 1554-1010 **(Web of Science)**.
- Gillala Rekha, V.Krishna Reddy, and **Amit Kumar Tyagi**, “*An EMD-Based Undersampling Approach for Handling Class-Imbalanced Data*”, International Journal of Intelligent Information and Database Systems, Inderscience, Vol.13 No.2/3/4, pp. 1-10, ISSN: 1751-5866 (Online) August 2020. DOI: 10.1504/IJIIDS.2020.109463, **(Scopus)**.
- **Amit Kumar Tyagi**, Meghna Manoj Nair, “*Internet of Everything (IoE) and Internet of Things (IoTs): Threat Analyses, Possible Opportunities for Future*”, Journal of Information Assurance and Security (JIAS), Vol. 15 Issue 4, October 2020, pp. 194-218, ISSN 1554-1010 **(Web of Science)**.

- Varsha. R, Meghna Manoj Nair, Siddharth M Nair, **Amit Kumar Tyagi**, “*Deep Learning Based Blockchain Solution for Preserving Privacy in Future Vehicles*”, International Journal of Hybrid Intelligent Systems, IOS Press, vol. 16, no. 4, pp. 223-236, 2020, ISSN: 1875-8819, DOI: 10.3233/HIS-200289, (**Web of Science**).
- Sravanthi, K. and Burugari, Vijay Kumar, **Amit Kumar Tyagi**, “*Preserving Privacy Techniques for Autonomous Vehicles*”, International Journal of Emerging Trends in Engineering Research, 2020, Vol. 8, Issue 9, pp. 5180-5190, ISSN 2347 – 3983, DOI: 10.30534/ijeter/2020/48892020, (**Scopus**).
- Meghna Manoj Nair, **Amit Kumar Tyagi** “*Privacy: History, Statistics, Policy, Laws, Preservation and Threat Analysis*”, Journal of Information Assurance and Security (JIAS), Volume 16, June 2021, pp. 24-34, ISSN 1554-1010 (**Web of Science**).
- **Amit Kumar Tyagi**, Aswathy S U “*Autonomous Intelligent Vehicles (AIV): Research Statements, Open Issues, Challenges and Road for Future*”, International Journal of Intelligent Networks, Volume 2, pp. 83-102. Elsevier, 2021, <https://doi.org/10.1016/j.ijin.2021.07.002> (**Scopus**).
- **Amit Kumar Tyagi**, Aswathy S U, G. Aghila, N Sreenath “*AARIN: Affordable, Accurate, Reliable and INnovative Mechanism to Protect a Medical Cyber-Physical System using Blockchain Technology*” International Journal of Intelligent Networks, Volume 2, 2021, pp. 177-183, Elsevier, 2021, <https://doi.org/10.1016/j.ijin.2021.09.007> (**Scopus**).
- Sajidha S A, Udai Agarwal, Pruthviraj R P, Sparsh Agarwal, Nisha V M, **Amit Kumar Tyagi**, “*A Simple, Effective Distance and Density Based Outlier Detection Algorithm*, Indonesian Journal of Electrical Engineering and Computer Science, Vol. 24, No. 2, November 2021, ISSN: 2502-4760 (Print), pp. 1141-1148, <http://doi.org/10.11591/ijeecs.v24.i2> (**Scopus**).
- S. Subasree, N.K. Sakthivel, Khushboo Tripathi, Deepshikha Agarwal, **Amit Kumar Tyagi**, “*Combining the Advantages of Radiomic Features based Feature Extraction and Hyper Parameters tuned RERNN using LOA for Breast Cancer Classification*”, Biomedical Signal Processing and Control, 72, Elsevier, 2022, ISSN: 1746-8094, <https://doi.org/10.1016/j.bspc.2021.103354>, (**SCI**).
- Ashwani Prasad, **Amit Kumar Tyagi**, Maha M. Althobaiti, Ahmed Almulihi, Romany F. Mansour and Ayman M. Mahmoud “*Human Activity Recognition using Cell Phone-based Accelerometer and Convolution Neural Network*”, Applied Science, MDPI, December 2021, 11(24), ISSN: 2076-3417, <https://doi.org/10.3390/app112412099>, (**SCI**).
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- **Amit Kumar Tyagi**, “Medical sensor network, edge computing and blockchain for efficient medical data exchange”, in the book: Digital Twin and Blockchain for Sensor Networks in Smart

Cities, Elsevier, 2024.

- **Amit Kumar Tyagi**, “Smart wireless sensor networks for road traffic management system and road safety”, in the book: Digital Twin and Blockchain for Sensor Networks in Smart Cities, Elsevier, 2024.
- **Amit Kumar Tyagi**, “Digital Twin Consensus for Blockchain-Enabled Intelligent Transportation Systems in Smart Cities”, in the book: Digital Twin and Blockchain for Sensor Networks in Smart Cities, Elsevier, 2024.
- **Amit Kumar Tyagi**, “Blockchain technology and digital twin in logistics and supply chain management”, in the book: Digital Twin and Blockchain for Sensor Networks in Smart Cities, Elsevier, 2024.
- **Amit Kumar Tyagi**, “Cloud computing and digital twin-based healthcare monitoring frameworks”, in the book: Digital Twin and Blockchain for Sensor Networks in Smart Cities, Elsevier, 2024.
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- **Amit Kumar Tyagi**, “Blockchain-Based Smart Parking for Digital-Twin Empowered Vehicular Sensing Networks with Privacy Protection”, in the book: Digital Twin and Blockchain for Sensor Networks in Smart Cities, Elsevier, 2024.
- **Amit Kumar Tyagi**, Artificial intelligence-enabled security Systems for 6G wireless networks: Algorithms, strategies, and applications, in the book: Advances in Fog Computing and the Internet of Things for Smart Healthcare, Elsevier 2024.
- **Amit Kumar Tyagi**, Challenges and Opportunities for Smart Healthcare Systems, in the book: Advances in Fog Computing and the Internet of Things for Smart Healthcare, Elsevier 2024.
- **Amit Kumar Tyagi**, Fog computing and IoT-based technology security and privacy in smart healthcare systems, in the book: Advances in Fog Computing and the Internet of Things for Smart Healthcare, Elsevier 2024.
- **Amit Kumar Tyagi**, Privacy protection for fog computing and IoT-based technology in smart healthcare systems, in the book: Advances in Fog Computing and the Internet of Things for Smart Healthcare, Elsevier 2024.
- **Amit Kumar Tyagi**, The potential applications of fog computing and IoT in healthcare, in the book: Advances in Fog Computing and the Internet of Things for Smart Healthcare, Elsevier 2024.
- **Amit Kumar Tyagi**, Real-world Applications of fog computing and IoT implementations in healthcare, in the book: Advances in Fog Computing and the Internet of Things for Smart Healthcare, Elsevier 2024.
- **Amit Kumar Tyagi**, Aswathy S U, “Integrating Blockchain Technology and Artificial Intelligence: Synergies, Perspectives, Challenges and Research Directions”, in Book titled Advances in Blockchain Technology for Cyber-Physical Systems, Internet of Things, Springer Series, 2023.

#### Seminar/ Webinar/ Conferences/ any Programs (Conducted)

- 6<sup>th</sup> Big Data Conclave, 30 May 2020.
- Webinar on “Recent Trends in Blockchain Technology”: 22 June 2020.
- 1<sup>st</sup> International Conference on Smart and Secure Computing (SMASEC 2020), 25-26 December, 2020.

#### Members of Research Societies/ Communities

- ACM, IEEE Communication, IEEE Signal Processing Society, Oracle Academy, International

Association of Academicians (IAASSE), Data Science Foundation, Machine Intelligence Research (MIR) Labs, Indian Society for Technical Education (ISTE), International Journal of Computational Science and Engineering, Ramanujan Mathematical Society, Cryptology Research Society India (CRSI), Universal Scientific Education and Research Network (USERN), IRAN, Asia Pacific Institute of Science and Engineering, Hongkong, CSI, African Research Universities Alliance (ARUA) and many more.

#### Lab Established (with Government/ University's Research Fund)

- Big Data Analytics, November 2018. (*Tools: Hadoop, KNIME, Apache Spark, and R Language*), Address: Room no. 2104, Department of CSE, Lingaya's Vidyapeeth, Faridabad, Haryana, India. (Capacity: 18 Seats)

#### Software Engineering/ Technical Skills

- Computer Language - C, C++, HTML, XML, Python, Ruby and Qt framework.
- Simulation Tools - Network Simulator-2 and 3, MOVE, SUMO, ONE, GTMobiSim, VANETSim, KNIME, Tensor Flow, PyTorch/ Tensorflow/ Keras/ Caffe, and Apache Spark, etc.
- Operating Systems - DOS, WINDOW and LINUX.

#### Referees

##### National

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##### International

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