



## (Dr. Tasneem Ahmed)

Associate Professor, Department of Computer Application, Faculty of Engineering & IT,  
Integral University, Lucknow

(+91-9548443915, [tasneema@iul.ac.in](mailto:tasneema@iul.ac.in))

([Google Scholar Citation](#), | [ORCID Id](#), | [Scopus](#), | [Web of Science](#), | [ResearchGate](#), | [LinkedIn](#))

### PROFILE

---

- Received PhD degree in Image Processing from Indian Institute of Technology (IIT) Roorkee, India in 2016.
- Research interests include Digital Image Processing and Computer Vision, Optical and Microwave Satellite Image Processing, Image Classification, Data Fusion, Time Series Analysis, Change Detection and SAR data analysis for land cover classification.
- Published 01 Authored Book, 03 Edited Books, 23 papers in repute Journals, 17 Conference papers in various National and International Conferences/ Seminars/Symposium and 18 Book Chapters in various National and International Edited Books.
- An active member of various professional societies like IEEE (Senior Member), IEEE Young Professionals, IAENG, and UACEE.
- Member of IQAC, NIRF Committee and University Ranking Cell.

### RESEARCH INTEREST:

- Image Processing and Computer Vision
- Optical and Microwave Remote Sensing
- Image Fusion
- Change Detection
- Time Series Analysis
- SAR Data Analysis For Land Cover Characterization

### SUMMARY OF RESEARCH ACCOMPLISHMENT:

- **Publications in Peer-Reviewed Journals:** Published 6 SCIE index, 1 ESCI index, 8 Scopus index and 8 peer-reviewed papers in various international and national journals. The most recent paper is published by Dr. Tasneem is published in Journal of the Indian Society of Remote Sensing with Impact factor of 2.2.
- **Books and Book Chapters:** Published 01 Authored Book, 03 Edited Books by various international and national publishers. Also, 18 Book Chapters in various Edited books published by international publishers.
- **Seed Money Grant:** Received Seed money grant of Rs. 2.5 Lacs from integral University Lucknow to carry out the research project titled "Satellite Images Based Flood Monitoring System" in 2023.
- **Conference Presentations, Keynote Speaker and Session Chair:** Presented 18 papers in

various international and national conferences and Seminars. Has Delivered a Lecture as a Resource Person on “Role of Satellite Images in Strategies for Sustainable Urban Development” in Two-Week Equivalent Blended Faculty Development Programme on "Recent Trends in Communication and Computational Technologies" organized by the Department of Electronics and Communication Engineering, Integral University, Lucknow, Uttar Pradesh, India, From 12th September 2022 to 10th October 2022 and a Lecture on “Satellite Image Analysis for Land Surface Monitoring” at 7-Days Workshop on “Satellite Image Analysis for Contemporary Applications: Hands-on with ENVI and Matlab” organized by Advanced Image and Data Science Lab, Department of Information Technology, IIT Allahabad, Uttar Pradesh, India, 22 – 28 April 2019. Dr. Tasneem has chaired the Sessions at “IEEE International Conference on Electrical, Electronics, Communication, and Computers (ELEXCOM'23)”, organized by the Drone Research Center, IIT Roorkee, in collaboration with IEEE Roorkee Subsection and IEEE Uttar Pradesh Section GRS Chapter, held at IIT Roorkee, Uttarakhand, India, 26 – 27 August 2023 and Session on “Sustainable Computing” during INDIACom-2023; 17th INDIACom; 2023 10th International Conference on “Computing for Sustainable Global Development”, organized by BVICAM, New Delhi, from 15 – 17 March 2023.

- **Awards or Recognition:** Received “**Best Innovation of The Year Award – 2022**” from Integral University, Lucknow in 2022 and “**Young Scientist Award**” Uttarakhand State Council for Science & Technology, Vigyan Dham, Dehradun in 2015.
- **Research Supervision:** Currently supervising 4 PhD Scholars, 1 Scholar has submitted her PhD thesis. Three PhD Scholars have received their PhD degree, and 1 M. Tech completed his dissertation under my supervision.

#### **PROFESSIONAL MEMBERSHIP:**

- Senior Member, IEEE
- Member, IEEE Young Professionals.
- Member, IEEE Professional Communication Society (ProComm).
- Life Member, Indian Society of Remote Sensing.
- Member, Soft Computing Research Society.
- Senior Member, Universal Association of Computer and Electronics Engineers (UACEE).
- Member, International Association of Engineers (IAENG).
- Member, International Association of Online Engineering (IAOE).
- Member, Science and Engineering Institute (SCIEI).
- Member, Society of Digital Information and Wireless Communications (SDIWC).
- Member of the International Association of Academic Plus Corporate (IAAC).

#### **COURSE TAUGHT:**

---

- Java Programming
- Web Technology
- Data Structure Using C
- Management Information System
- Multimedia System
- Computer Fundamentals and Programming Concepts
- Software Security
- Data Communication and Computer Networks
- Digital Image Processing
- Web Designing Concepts

## ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILITY

---

- Member, Academic & Administrative Audit Team of Session 2022-23 and 2023-24.
- Member Board of Studies and Faculty Board.
- Member Departmental Quality Assurance Cell.
- Member of University Level NIRF Committee from October 2019 to Till Date.
- Member of University Ranking Cell from February 2022 to Till Date.
- Sub-committee Member of University Level NAAC Criteria-VI 'Governance Leadership & Management' from June 2021 to Till Date.
- Member of Flying Squads for Semester End Examination.
- NAAC Criteria-I in charge of Departmental Quality Assurance Cell.
- Convener of Lab Development & Maintenance Committee from May 2023 to Till Date.
- Coordinator of Advanced Computing Research Laboratory from June 2020 to Till Date.
- PG Coordinator (MCA) in the Department of Computer Application from May 2023 to Till Date.
- Convener of the Departmental Library Committee from January 2019 to Spetember2024.
- Convener of the Departmental Innovative Teaching and Learning Committee from January 2019 to September 2024.
- Member Secretary of Departmental Competitive Exam Preparation Committee from January 2019 to September 2024.
- Member Secretary of Lab Development & Maintenance Committee from January 2019 to April 2023.
- Member Secretary of Student Extra-Curricular Activities Committee from September 2019 September 2024.

## STUDENTS SUPERVISION

---

### Doctoral Students

- **Harish Chandra Verma (Enroll. No. 1701136, 2023) – Supervisor:** *Development and Analysis of Satellite Images Based Change Detection Monitoring Algorithm in Area Under Major Fruit Crops in Uttar Pradesh.*
- **Saurabh Srivastava (Enroll. No. 1701046, 2023) – Supervisor:** *Development of Big Data Analytical Techniques for Satellite Images Retrieval for Land Surface Monitoring.*
- **Mohammad Siddique (Enroll. No. 1801075, 2024) – Supervisor:** *Development of Flood Monitoring and Early Warning System Based on IoT using Satellite Images.*
- **Eram Fatima Siddiqi (Enroll. No. 1801075, 2024) – Supervisor:** *Development of a Framework to mitigate Vulnerable Latency Junction in IoT. (Thesis Submitted)*

## PUBLISHED/GRANT PATENTS

---

- **"Automated Device for Early Detection of Tomato Diseases"** published in 2024.
- **"Multi-Layered Security Network Authentication System Development Through Blockchain Technology"** published in 2022.

## PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

---

- Eram Fatima Siddiqui and **Tasneem Ahmed**, **"GTBTL-IoT: An Approach of Curtailing Task Offloading Time for Improved Responsiveness in IoT-MEC Model,"** EAI Endorsed Transactions on Internet of Things, vol. 11, pp. 1 – 13, 2025. DOI: <https://doi.org/10.4108/eetiot.5556> (**Scopus Index, ISSN: 2414-1399**)
- Mohammed Siddique, **Tasneem Ahmed**, and Mohd Shahid Husain, **"A Deep Learning-based Approach to Predict the Flood Patterns Using Sentinel-1A Time Series Images,"** Journal of the Indian

Society of Remote Sensing, 2024. <https://doi.org/10.1007/s12524-024-02016-8> (SCIE Index, Impact Factor – 2.2)

- Saurabh Srivastava and **Tasneem Ahmed**, “**DLCD: Deep learning-based change detection approach to monitor deforestation,**” *Signal, Image and Video Processing*, vol. 18, pp. 167 – 181, 2024. <https://doi.org/10.1007/s11760-024-03140-1> (SCIE Index, Impact Factor – 2.0)
- Tabish Izhar, Syed Aqeel Ahmad, **Tasneem Ahmed** and Neha Mumtaz, “**StrucPy.RCFA- Object-Oriented Python Package for Structural Analysis of Reinforced Concrete Frames,**” *Journal of Open Research Software*, vol. 12, no. 1, 2024. DOI: 10.5334/jors.489 (Scopus Index)
- Tabish Izhar, Syed Aqeel Ahmad, **Tasneem Ahmed** and Neha Mumtaz, “**Transformative Role of Machine Learning in Design Optimization of Reinforced Concrete Frames,**” *International Journal of Advanced Technology and Engineering Exploration*, vol. 11, no. 112, pp. 437 – 458, 2024. (Scopus Index)
- Eram Fatima Siddiqui, **Tasneem Ahmed** and Sandeep Kumar Nayak, “**A Decision Tree Approach for Enhancing Real-Time Response in Exigent Healthcare Unit Using Edge Computing,**” *Measurement: Sensors*, vol. 32, (100979), pp. 1 – 10, 2024. <https://doi.org/10.1016/j.measen.2023.100979> (Scopus Index)
- Nashra Javed, **Tasneem Ahmed**, and Mohammad Faisal, “**A Comprehensive Study on Prevalence of Cyberbullying and its Impact on Youths and Adults,**” *Journal of Statistics & Management Systems*, vol. 26, no. 7, pp. 1655 – 1672, 2023. <https://doi.org/10.47974/JSMS-1132> (ESCI Index)
- Mohammed Siddique, **Tasneem Ahmed**, and Mohd Shahid Husain, “**Flood Monitoring and Early Warning Systems – An IoT Based Perspective,**” *EAI Endorsed Transactions on Internet of Things*, vol. 9, no. 2, pp. 1 – 10, 2023. DOI: <https://doi.org/10.4108/eetiot.v9i2.2968> (Scopus Index)
- Harish Chandra Verma, **Tasneem Ahmed**, and Shailendra Rajan, “**Comparative evaluation of change detection techniques based on multispectral images for measuring land cover dynamics of mango (Mangifera indica L.) in Malihabad, Lucknow (UP),**” *Journal of Applied Horticulture*, vol. 24, no. 2, pp. 254 – 260, 2022. DOI: <https://doi.org/10.37855/jah.2022.v24i02.46> (Scopus Index)
- Harish Chandra Verma, **Tasneem Ahmed**, Shailendra Rajan, Mohammad Kamrul Hasan, Asif Khan, Hardik Gohel, and Afzan Adam, “**Development of LR-PCA based Fusion Approach to Detect the Changes in Mango Fruit Crop by using Landsat 8 OLI Images,**” *IEEE Access*, vol. 10, pp. 85764 – 85776, 2022. 10.1109/ACCESS.2022.3194000 (SCIE Index, Impact Factor - 3.4)
- Mohammed Siddique, **Tasneem Ahmed**, and Mohd Shahid Husain, “**An Empirical Approach to Monitor the Flood-Prone Regions of North India Using Sentinel-1 Images,**” *Annals of Emerging Technologies in Computing (AETiC)*, vol. 6, no. 4, pp. 1-14, 2022. <http://aetic.theiaer.org/archive/v6/v6n4/p1.html> (Scopus Index)
- Gausiya Yasmeen, Nashra Javed, and **Tasneem Ahmed**, “**Interoperability: A Challenge for IoMT,**” *ECS Transactions*, vol. 107, no. 1, pp. 4459-4467, 2022. 10.1149/10701.4459ecst (Scopus Index)
- **Tasneem Ahmed** and Dharmendra Singh, “**Probability Density Functions Based Classification of MODIS NDVI Time Series Data and Monitoring of Vegetation Growth Cycle,**” *Advances in Space Research*, Elsevier, vol. 66, no. 4, pp. 873-886, 2020. <https://doi.org/10.1016/j.asr.2020.05.004> (SCIE Index, Impact Factor- 2.611)
- **Tasneem Ahmed**, Dharmendra Singh and Balasubramanian Raman, “**Potential Application of Kanade-Lucas-Tomasi Tracker on Satellite Images for Automatic Change Detection,**” *Journal of Applied Remote Sensing*, SPIE Digital Library, vol. 10, no. 2, pp. 026018(1)- 026018(18), 2016. <https://doi.org/10.1117/1.JRS.10.026018> (SCIE Index, Impact Factor- 1.4)
- **Tasneem Ahmed**, Dharmendra Singh, Shweta Gupta and Balasubramanian Raman, “**An Efficient Application of Fusion Approach for Hotspot Detection with MODIS and PALSAR-1 Data,**” *Geocarto International*, Taylor and Francis, vol. 31, no. 7, pp. 715-738, 2016. <https://doi.org/10.1080/10106049.2015.1076061> (SCIE Index, Impact Factor- 3.3)

- Mohammed Siddique, **Tasneem Ahmed**, and Mohd Shahid Husain, “**An Integrated Image Classification Approach to Detect the Flood Prone Areas Using Sentinel-1 Images,**” in Proceedings of the 17<sup>th</sup> INDIACom; INDIACom; 2023 **10<sup>th</sup> International Conference on “Computing for Sustainable Global Development”**, Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, India, pp. 655 – 660, 15<sup>th</sup> – 17<sup>th</sup> March 2023. (*IEEE Xplore, Scopus Index*)
- Saurabh Srivastava and **Tasneem Ahmed**, “**An Approach to Monitor Urban Growth through Deep Learning based Change Detection Technique using Sentinel-2 Satellite Images,**” in Proceedings of the 17<sup>th</sup> INDIACom; INDIACom; 2023 **10<sup>th</sup> International Conference on “Computing for Sustainable Global Development”**, organized by Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, India, pp. 832 – 838, 15<sup>th</sup> – 17<sup>th</sup> March 2023. (*IEEE Xplore, Scopus Index*)
- Harish Chandra Verma and **Tasneem Ahmed**, “**A Comprehensive Analysis of Advanced Change Detection Technique for Planning and Monitoring Sustainable Mango Crop Areas using Landsat-8 Images,**” in Proceedings of the 17<sup>th</sup> INDIACom; INDIACom; 2023 **10<sup>th</sup> International Conference on “Computing for Sustainable Global Development”**, organized by Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, India, pp. 1336 – 1341, 15<sup>th</sup> – 17<sup>th</sup> March 2023. (*IEEE Xplore, Scopus Index*)
- Mohammed Siddique, **Tasneem Ahmed** and Mohd Shahid Husain, “**Random Forest Based Flood Monitoring Using Sentinel-1 Images: A Case Study of Flood Prone Regions of North-East India,**” in Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium (IGARSS-2022)*, held at Kuala Lumpur, Malaysia, pp. 4883- 4886, 17 – 22 July 2022. [10.1109/IGARSS46834.2022.9884483](https://doi.org/10.1109/IGARSS46834.2022.9884483) (*IEEE Xplore, Scopus Index*)
- Harish Chandra Verma, **Tasneem Ahmed**, and Shailendra Rajan, “**An Approach To Estimate The Instability and Growth Trends of Mango Crop Area By Using The Optical Satellite Images,**” in Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium (IGARSS-2022)*, held at Kuala Lumpur, Malaysia, pp. 4887- 4890, 17 – 22 July 2022. [10.1109/IGARSS46834.2022.9884462](https://doi.org/10.1109/IGARSS46834.2022.9884462) (*IEEE Xplore, Scopus Index*)
- Harish Chandra Verma, Shailendra Rajan, and **Tasneem Ahmed**, “**A Review on Land Cover Classification Techniques for Major Fruit Crops in India- Present Scenario and Future Aspects**”, in Proceedings of the *International Conference on Sustainable Computing in Science, Technology & Management (SUSCOM-2019)*, organized by Amity University Rajasthan, Jaipur, India, pp. 1591-1596, 26 – 28 February 2019. <http://dx.doi.org/10.2139/ssrn.3356502> (*SSRN Repository, Scopus Index*)
- Deepak Murugan, Akanksha Garg, **Tasneem Ahmed**, and Dharmendra Singh, “**Fusion of Drone and Satellite Data for Precision Agriculture Monitoring,**” In Proceedings of the *11<sup>th</sup> IEEE International Conference on Industrial and Information Systems (ICIIS2016)*, Department of Electronics & Communication Engineering, IIT Roorkee, India, pp. 910-914, 3 – 4 December 2016. [DOI: 10.1109/ICIINFS.2016.8263068](https://doi.org/10.1109/ICIINFS.2016.8263068) (*IEEE Xplore, Scopus Index*)
- **Tasneem Ahmed**, Dharmendra Singh, Shweta Gupta, and Balasubramanian Raman, “**An Approach to Monitor Land Cover Changes with Time Series MODIS Data Over Hot spot Region,**” In Proceedings of the *10<sup>th</sup> IEEE International Conference on Industrial and Information Systems (ICIIS2015)*, Faculty of Engineering, University of Peradeniya, Sri Lanka, pp. 278-283, 17 – 20 December 2015. [DOI: 10.1109/ICIINFS.2015.7399024](https://doi.org/10.1109/ICIINFS.2015.7399024) (*IEEE Xplore, Scopus Index*)
- **Tasneem Ahmed**, Akanksha Garg, Dharmendra Singh and Balasubramanian Raman, “**An Approach to Monitor River Catchment with PALSAR Satellite Data,**” in Proceedings of the *9<sup>th</sup> IEEE International Conference on Industrial and Information Systems (ICIIS2014)*, Atal Bihari Vajpayee

Indian Institute of Information Technology and Management Gwalior, India, 15 – 17 December 2014. [DOI: 10.1109/ICIINFS.2014.7036639](https://doi.org/10.1109/ICIINFS.2014.7036639) (*IEEE Xplore, Scopus Index*)

- Akanksha Garg, Shashi Vardhan Naidu, **Tasneem Ahmed**, Hussein Yahia, and Dharmendra Singh, “**Wavelet Based Resolution Enhancement for Low Resolution Satellite Images**,” in Proceedings of the 9<sup>th</sup> *IEEE International Conference on Industrial and Information Systems (ICIIS2014)*, Atal Bihari Vajpayee Indian Institute of Information Technology and Management Gwalior, India, 15 – 17 December 2014. [DOI: 10.1109/ICIINFS.2014.7036652](https://doi.org/10.1109/ICIINFS.2014.7036652) (*IEEE Xplore, Scopus Index*)
- **Tasneem Ahmed**, Dharmendra Singh, Shweta Gupta, and Balasubramanian Raman, “**Particle Swarm Optimization Based Fusion of MODIS and PALSAR Images for Hotspot Detection**,” in Proceedings of the *International Conference on Microwave and Photonics, Indian School of Mines, Dhanbad, India*, pp. 1-6, 13 – 15 December 2013. [DOI: 10.1109/ICMAP.2013.6733498](https://doi.org/10.1109/ICMAP.2013.6733498) (*IEEE Xplore, Scopus Index*)
- **Tasneem Ahmed**, Shashi Vardhan Naidu, Dharmendra Singh, and Balasubramanian Raman, “**An Approach to Detect Hotspots with INSAT-3D Data**,” in *Proceeding of National Conference on Recent Advances in Electronics & Communication Engineering (RAECE 2015)*, at IIT Roorkee, India, pp. 267-270, 13 – 15 February 2015. [DOI: 10.1109/RAECE.2015.7510204](https://doi.org/10.1109/RAECE.2015.7510204), (*IEEE Xplore, Scopus Index*)
- **Tasneem Ahmed**, Kumar Ujjwal Tyagi, Dharmendra Singh, and Balasubramanian Raman, “**Application to Use SARAL Altimetry for Water Level Monitoring Over Ramganga Reservoir and Its Correlation with MODIS Data**,” in *Proceeding of National Conference on Recent Advances in Electronics & Communication Engineering (RAECE 2015)*, at IIT Roorkee, India, pp. 271-275, 13 – 15 February 2015. [DOI: 10.1109/RAECE.2015.7510205](https://doi.org/10.1109/RAECE.2015.7510205), (*IEEE Xplore, Scopus Index*)
- Vinay Kumar, **Tasneem Ahmed** and Dharmendra Singh, “**Soil Moisture Retrieval of Vegetated Land Cover Using RADARSAT-2 Data**,” in *Proceeding of National Conference on Recent Advances in Electronics & Communication Engineering (RAECE 2015)*, at IIT Roorkee, India, pp. 276-281, 13 – 15 February 2015. [DOI: 10.1109/RAECE.2015.7510206](https://doi.org/10.1109/RAECE.2015.7510206), (*IEEE Xplore, Scopus Index*)
- Ajay Kumar Maurya, **Tasneem Ahmed**, Dharmendra Singh and Balasubramanian Raman, “**An Approach to Use Polarimetric Signature for Land Cover Classification**,” in *Proceeding of National Conference on Recent Advances in Electronics & Communication Engineering (RAECE 2015)*, at IIT Roorkee, India, pp. 248-253, 13 – 15 February 2015. [DOI: 10.1109/RAECE.2015.7510200](https://doi.org/10.1109/RAECE.2015.7510200), (*IEEE Xplore, Scopus Index*)
- **Tasneem Ahmed**, Div J. Singh, Dharmendra Singh, Balasubramanian Raman and R. D. Subramanian, “**Application of KLT (Kanade-Lucas-Tomasi) Tracker for Hotspot Observation**,” in Proceedings of the *Geomatrix'14 National Conference on Geo-informatics in Rural, Urban & Climatic Studies*, at IIT Bombay, Powai, Mumbai, pp. 166-169, 06 – 07 June 2014.
- Lokesh Meghwal, **Tasneem Ahmed**, Dharmendra Singh and Balasubramanian Raman, “**Classification of Land Cover Using Different Indices on MODIS Imagery**,” in Proceedings of the *National Conference Recent Trends on Microwave Techniques and Applications*, Jointly organized by: S. S. Jain Subodh P.G. College, Jaipur and University of Rajasthan, India, pp. 71, 30 July – 01 August 2012.

#### PUBLISHED NON-SCI-SCOPUS BUT PEER REVIEWED RESEARCH PAPERS

- Harish Chandra Verma and **Tasneem Ahmed**, “**Trends in the Compound Annual Growth Rate of Mango Crop Area and Production**,” *Journal of AgriSearch*, vol. 10, no. 4, pp. 239 – 248, 2024. <https://doi.org/10.21921/jas.v10i04.14380> (*ISSN: 2348-8867*)
- Saurabh Srivastava, **Tasneem Ahmed**, and Amit Saxena, “**An Approach to Secure IoT Applications of Smart City Using Blockchain Technology**,” *International Journal of Engineering Sciences & Emerging Technologies*, vol. 11, no. 2, pp. 71 – 78, 2023. [DOI: 10.5281/zenodo.10434277](https://doi.org/10.5281/zenodo.10434277) (*ISSN: 22316604*)
- Saurabh Srivastava and **Tasneem Ahmed**, “**Correlation Between Built-Up and Land Surface Temperature Using Sentinel-2 and Landsat-8 Images Through Semi-Supervised Deep Learning**”

**Model for Efficient Land Surface Monitoring,”** *Mathematical Statistician and Engineering Applications*, vol. 71, no. 4, pp. 3000 – 3023, 2022. (E-ISSN: 2984-7869) <https://doi.org/10.17762/msea.v71i4.859>

- **Tasneem Ahmed, “Monitoring and Mapping of Flash Flood of Patna City Using Sentinel-1 Images: A Case of India’s Most Flood Prone State,”** *Academia Letters*, Article 1349, pg. 1 – 14, 2021. <https://doi.org/10.20935/AL1349> (ISSN: 2771-9359)
- **Saurabh Srivastava and Tasneem Ahmed, “Similarity-Based Neural Network Model for FBIR System of Optical Satellite Image Quality Assessment,”** *Turkish Journal of Computer and Mathematics Education*, vol. 12, no. 13, pp. 2391-2410, 2021. (ISSN: 1309-4653) <https://doi.org/10.17762/turcomat.v12i13.8931>
- **Saurabh Srivastava and Tasneem Ahmed, “Feature-Based Image Retrieval (FBIR) System for Satellite Image Quality Assessment Using Big Data Analytical Technique,”** *Psychology and Education*, vol. 58, no. 2, pp. 10202-10220, 2021. <https://doi.org/10.17762/pae.v58i2.3990> (ISSN: 1553-6939)
- **Tasneem Ahmed and Mohammad Usama, “Potential Application of Hough Transform to Extract Hot Spot Delineated Boundaries using Landsat-8 Satellite Images,”** *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, vol. 9, no. 3, pp. 3550-3557, 2020. [doi: 10.35940/ijitee.B7342.019320](https://doi.org/10.35940/ijitee.B7342.019320) (ISSN: 2278-3075)
- **Harish Chandra Verma, Tasneem Ahmed, and Shailendra Rajan, “Mapping and Area Estimation of Mango Orchards of Lucknow Region by Applying Knowledge Based Decision Tree to Landsat 8 OLI Satellite Images,”** *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, vol. 9, no. 3, pp. 3627-3635, 2020. [doi: 10.35940/ijitee.B8109.019320](https://doi.org/10.35940/ijitee.B8109.019320) (ISSN: 2278-3075)

#### BOOK EDITED/ AUTHORED

---

- **Harish Chandra Verma and Tasneem Ahmed “Satellite Images Based Mango Monitoring in Uttar Pradesh, India”,** published by LAP Lambert Academic Publishing in 2024, ISBN: 978-620-7-48398-3.
- **Editing a book titled “Advances in Cyberology and the Advent of the Next-Gen Information Revolution”,** published by IGI Global (formerly Idea Group Inc.), June 2023, ISBN13: 9781668481332, DOI: [10.4018/978-1-6684-8133-2](https://doi.org/10.4018/978-1-6684-8133-2) (*Scopus Index*)
- **An Edited book titled “Emerging Trends in Information Technology”,** published by Nitya Publication, Bhopal, 2022, ISBN: 978-93-94894-03-7.
- **An Edited book titled “Information & Communication Technology”,** published by Aargon Press, New Delhi, 2021, ISBN: 978-93-94070-92-9.

#### BOOK CHAPTERS

---

- **Saurabh Srivastava and Tasneem Ahmed, “An Approach to Assess the Impact of Rapid Urbanization on Land Surface Temperature Using Sentinel-2 and Landsat-8 Images,”** In: Kumar, S., Hiranwal, S., Purohit, S., Prasad, M. (eds) *Proceedings of International Conference on Communication and Computational Technologies. ICCCT 2023. Algorithms for Intelligent Systems*, Springer, Singapore, pp. 759–770, 2023. [https://doi.org/10.1007/978-981-99-3485-0\\_60](https://doi.org/10.1007/978-981-99-3485-0_60). (ISBN: 978-981-99-3484-3)
- **Tasneem Ahmed, Nashra Javed, Mohammad Faisal and Halima Sadia, “A Framework for Smart Agriculture System to Monitor the Crop Stress and Drought Stress Using Sentinel-2 Satellite Image,”** In: Mathur, G., Bundele, M., Tripathi, A., Paprzycki, M. (eds) *Proceedings of 3rd International Conference on Artificial Intelligence: Advances and Applications, ICAIAA 2022. Algorithms for Intelligent Systems*, Springer, Singapore, pp. 345 – 361, 2023. [https://doi.org/10.1007/978-981-19-7041-2\\_27](https://doi.org/10.1007/978-981-19-7041-2_27). (ISBN: 978-981-19-7040-5)

- Nashra Javed, Halima Sadia, **Tasneem Ahmed**, and Mohammad Faisal, “**Blockchain technology-based framework to build cyber-secured smart cities,**” In V. K. Singh, A. K. Sagar, P. Nand, R. Astya, O. Kaiwartya (Eds.), *Intelligent Networks Techniques, and Applications*, CRC Press, pp. 198 – 215, 2024. (*Scopus Index, eISBN: 9781003541363*)
- Saurabh Srivastava, **Tasneem Ahmad**, and Nayyar Ali Usmani, “**Pivotal role of cyber security in internet of things-based smart cities: An analytical framework for safe smart cities,**” In S. A. Khan, M. Faisal, N. Alharbe, R. Kumar, R. A. Khan (Eds.), *Computational Intelligence Applications in Cyber Security*, CRC Press, pp. 282-298, 2024. (*Scopus Index, eISBN: 9781003514312*) [10.1201/9781003514312-17](https://doi.org/10.1201/9781003514312-17)
- Saurabh Srivastava, Harish Chandra Verma, Syed Adnan Ahaq, Mohammad Faisal, and **Tasneem Ahmed**, “**The Impact of 5G on the Future Development of the Healthcare Industry,**” In R. Kumar, A. Joshi, H. O Sharan, Sheng-Lung Peng & C.R. Dudhagara (Eds.), *The Ethical Frontier of AI and Data Analysis*, IGI Global, pp. 313 – 319, 2024. (*Scopus Index, ISBN13: 9798369329641*) <https://doi.org/10.4018/979-8-3693-2964-1.ch019>
- Harish Chandra Verma, Saurabh Srivastava, Nayyar Ali Usmani and **Tasneem Ahmed**, “**Cyber Threats in Agriculture and the Food Industry: An Indian Perspective,**” In M. Husain, M. Faisal, H. Sadia, T. Ahmed, & S. Shukla (Eds.), *Advances in Cyberology and the Advent of the Next-Gen Information Revolution*, IGI Global, pp. 109 - 122, 2023. (*Scopus Index, ISBN13: 9798369329641*) <https://doi.org/10.4018/978-1-6684-8133-2.ch006>
- Nashra Javed, **Tasneem Ahmed**, Mohammad Faisal, Halima Sadia and Emily Zoë Jeanne Sidaine-Daumiller, “**Workplace Cyberbullying in the Remote-Work Era: A New Dimension of Cyberology,**” In M. Husain, M. Faisal, H. Sadia, T. Ahmed, & S. Shukla (Eds.), *Advances in Cyberology and the Advent of the Next-Gen Information Revolution*, IGI Global, pp. 166 - 177, 2023. (*Scopus Index, ISBN: 9798369329641*) <https://doi.org/10.4018/978-1-6684-8133-2.ch009>
- Nashra Javed, **Tasneem Ahmad** and Mohammad Faisal, “**Cyberbullying and The Laws: A Legal Barrier To Prevent Cyber Crimes,**” in *Sustainable Environment, Manifestation and Augmentation*, Jupiter Publications Consortium, Tamil Nadu, pp. 1 – 9, 2023. (*ISBN: 978-93-91303-45-7*)
- Nayyar Ali Usmani, **Tasneem Ahmad** and Mohammad Faisal, “**An IoT Based Framework towards a Feasible Safe and Smart City using Drone Surveillance,**” in *Smart Cities: Concept, Practices, and Applications*, CRC Press, Taylor and Francis Group, pp. 97-112, 2022. <https://doi.org/10.1201/9781003287186> (*Scopus Index, ISSN: 9781003287186*)
- Mohammad Faisal, Halima Sadia, **Tasneem Ahmad** and Nashra Javed, “**Blockchain Technology for Healthcare Record Management,**” in *Pervasive Healthcare: A Compendium of Critical Factors for Success, EAI/Springer Innovations in Communication and Computing*. Springer, Cham., pp. 255-286, 2021. [https://doi.org/10.1007/978-3-030-77746-3\\_17](https://doi.org/10.1007/978-3-030-77746-3_17) (*Scopus Index, ISSN: 2522-8609*)
- Iti Mishra and **Tasneem Ahmed**, “**A Systematic Review on Internet of Things: An Emerging Trends Future Perspective and Challenges,**” in *Emerging Trends in Information Technology*, published by Nitya Publication, Bhopal, pp. 48 - 58, 2022. (*ISBN: 978-93-94894-03-7*)
- Harish Chandra Verma and **Tasneem Ahmed**, “**Review of Digital Image Processing Applications in Horticulture – Current Scenario and Future Perspective,**” in *Emerging Trends in Information Technology*, published by Nitya Publication, Bhopal, pp. 67 – 76, 2022. (*ISBN: 978-93-94894-03-7*)
- Saurabh Srivastava, **Tasneem Ahmed** and Mohammad Faisal, “**An Approach To Protect The Digital Evidence Using Blockchain Technology,**” in *Emerging Trends in Information Technology*, published by Nitya Publication, Bhopal, pp. 154 – 161, 2022. (*ISBN: 978-93-94894-03-7*)
- Nashra Javed, Syed Adnan Afaq, Mohammad Faisal and **Tasneem Ahmed**, “**Covid-19: As an Opportunity for Cybercriminals,**” in *Information & Communication Technology*, published by Aargon Press, New Delhi, pp. 1-29, 2021. (*ISBN: 978-93-94070-92-9*)



- Mohammed Siddique and **Tasneem Ahmed**, “**Role of Satellite Images in Estimation of Locust Swarm Infested Areas during COVID-19 Pandemic in India,**” in *Information & Communication Technology*, published by Aargon Press, New Delhi, pp. 105-122, 2021. **(ISBN: 978-93-94070-92-9)**
  - Saurabh Srivastava and **Tasneem Ahmed**, “**Satellite Image Quality Assessment in Big Data Repository Using Big Data Analytical Techniques,**” in *Information & Communication Technology*, published by Aargon Press, New Delhi, pp. 123-140, 2021. **(ISBN: 978-93-94070-92-9)**
  - Saurabh Srivastava and **Tasneem Ahmed**, “**Similarity-Based Neural Network Model for Feature-Based Satellite Image Retrieval System,**” in *Information & Communication Technology*, published by Aargon Press, New Delhi, pp. 211-224, 2021. **(ISBN: 978-93-94070-92-9)**
  - Nashra Javed, Yusra Khalil, **Tasneem Ahmed**, and Mohammad Faisal, “**Road-Map to Full Stack Web Development,**” in *Information & Communication Technology*, published by Aargon Press, New Delhi, pp. 225-245, 2021. **(ISBN: 978-93-94070-92-9)**
-