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Department of Computer Science and Information Technology  
School of Technology  
Maulana Azad National Urdu University (A Central University)  
(Accredited Grade "A+" by NAAC)  
Gachibowli, Hyderabad, Telangana-500032, India  
☎ +91-7675824475 (WhatsApp)  
✉ khaleelahmad@manuu.edu.in

[Profile IRINS](#) || [Google Scholar](#) || [ResearchGate](#) || [Scopus](#) || [Vidwan-ID : 127488](#) || [Web of Science](#)

## DR. KHALEEL AHMAD | ASSISTANT PROFESSOR

**CURRENT DESIGNATION/ INVOLVEMENT** Currently working as an Assistant Professor at the Department of Computer Science and Information Technology, School of Technology, Maulana Azad National Urdu University (Central University), Hyderabad, Telangana, India, since 3<sup>rd</sup> February 2014.

**AREA OF SPECIALIZATION** Blockchain Technology, Cyber Security, Cryptography, Opportunistic Network

**ACADEMIC RESEARCH FELLOWSHIPS/PROJECTS**

- **International Fellowship:** SIR/2022/000040 Dated 12 May 2022  
Awarded SERB *International Research Experience (SIRE) Fellowship* for the year 2022-2023 funded by the Science and Engineering Research Board, Govt. of India for six months. **Grant: 1.58 Million INR / 19841 USD**

Worked on Blockchain Technology with **Prof. Laura Emilia Maria Ricci in the Department of Computer Science, University of Pisa, Italy (Founded in 1343)** from July 2022 to Jan 2023.

- **Project:** Secure Communication in Opportunistic Network Using Asymmetric Cryptography  
**Cost: 1,05,000 INR**, Funded by: Maulana Azad National Urdu University, Hyderabad (2016-2017)

**VISITING FACULTY**

- Visited the Tashkent University of Information Technologies named after Muhammad Ibn Musa Al-Khwarizmi, Uzbekistan, as a Visiting Faculty from 20<sup>th</sup> October 2025 to 24<sup>th</sup> October 2025.
- Visited the Tashkent University of Information Technologies named after Muhammad Ibn Musa Al-Khwarizmi, Uzbekistan, as a Visiting Faculty from 26<sup>th</sup> September 2023 to 08<sup>th</sup> October 2023.
- Visited the National Defence University of Malaysia (UPNM), Malaysia, as a Visiting Faculty from 26 Dec 2018 to 06 Jan 2019.

**ACADEMIC AND ADMINISTRATIVE EXPERIENCE**

- Currently working as a Warden
- Worked as an Assistant CPIO
- Worked as a Convener for NAAC Criteria 3
- Academic Coordinator

- Member, Board of Studies, Dept. of CS & IT, MANUU
- Member, School Board, School of Technology, MANUU

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#### EDUCATIONAL QUALIFICATION

- M.Tech. , Ph.D. (Computer Science & Engineering)

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#### CERTIFICATIONS

- Completed a 12-week course on “**Blockchain and its Applications**” from IIT Kharagpur, India in April 2024.
- Completed a Certificate Course on “**Hyperledger Developer**” from Blockchain Council on 27 February 2023.
- Completed a Certificate Course on “**Hyperledger Fabric**” from ACTE Technologies in April 2023.
- Completed a Certificate Course on “**Hyperledger Fabric Fundamentals (JavaScript)**” from Kerala Blockchain Academy on 30 December 2023.
- Completed a Certification Course on “**Blockchain Essentials**” powered by IBM Developer Skills Network on 21 December 2022.
- Completed Ankit Fadia Certified “**Ethical Hacker Program**” on 1<sup>st</sup> January 2009.
- Completed an International Certificate in **TESOL/TEFL** Program.

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#### TEACHING PROFICIENCY

Blockchain Technology, Cryptography, Network Security, Computer Network, Data Structure, Algorithms,

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#### RESEARCH PUBLICATION DETAILS

##### Patents:

- A Method For Establishing a Secure Communication Over a Network
  - Khairol Amali Bin Ahmad, **Khaleel Ahmad**, Ahamed Shareef
  - **Granted** 26-05-2023, Filed Country: Malaysia
  - **Patent No: MY-197138-A**
- Smart Vehicle Monitoring System
  - Khairol Amali Bin Ahmad, **Khaleel Ahmad** , Manju Khari, Archit Garg
  - **Granted** 06-09-2024, Filed Country: Malaysia
  - **Patent No: MY-204634-A**

##### Edited Books:

- **Ahmad, K.**, Badar, S., Dulhare, N., Ahamad, J., & Rizvi, M. A. (Eds.). (2025). *Fostering Machine Learning & IoT for Blockchain Technology: Smart City Applications, Vol I*, Springer. <https://link.springer.com/book/9789819640775>
- **Ahmad, K.**, Badar, S., Dulhare, N., Ahamad, J., & Rizvi, M. A. (Eds.). (2025). *Fostering Machine Learning & IoT for Blockchain Technology: Smart City Applications, Vol II*, Springer. <https://link.springer.com/book/10.1007/978-981-96-4074-4>
- Ahmad, K. A. B., **Ahmad, K.**, & Dulhare, U. N. (Eds.). (2021). *Functional Encryption*. Cham: Springer.
- Dulhare, U. N., **Ahmad, K.**, & Ahmad, K. A. B. (Eds.). (2020). *Machine Learning and Big Data: Concepts, Algorithms, Tools and Applications*. John Wiley & sons.
- **Ahmad, K.**, Doja, M. N., Udzir, N. I., & Singh, M. P. (Eds.). (2019). *Emerging Security Algorithms and Techniques*. CRC Press.
- **Ahmad, K.**, Udzir, N. I., & Deka, G. C. (Eds.). (2018). *Opportunistic Networks: Mobility Models, Protocols, Security, and Privacy*. CRC Press.

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- **Ahmad, K.**, et al. (Eds.). *Proceeding of 1<sup>st</sup> International Conference on Computers and Electronics Engineering 2016 (ICCEE-2016)*. McGraw Hill.

### Journals:

- Khan, T., Singh, K., Bhati, B. S., Ahmad, K., Al-Rasheed, A., Getahun, M., & Soufiene, B. O. (2025). Trust-driven approach to enhance early forest fire detection using machine learning. *Scientific Reports*, 15(1), 14480. **[Indexing: SCIE, Scopus] [IF: 3.9]**
- Arsheen, S., & **Ahmad, K.** (2025). A blockchain-based immunization framework with robust security and reliability. *Intelligent Decision Technologies*, Sage Publisher. 1-15. **[Indexing: ESCI, Scopus] [IF: 0.8]**
- Arsheen, S., & **Ahmad, K.** (2024). ImmuneChain: A Blockchain-Based Secure and Transparent Vaccine Supply Chain. *SN Computer Science*, Springer, 6, 1-13. **[Indexing: Scopus]**
- Naikoo, F. A., **Ahmad, K.**, & Ahmad, K. A. B. Design of a mix network with elliptic curve cryptography and XOR shuffling for secure communication with 5-node. *Internet Technology Letters*, Wiley, 1-6. **[Indexing: ESCI, Scopus] [IF: 0.5]**
- Naikoo, F. A., **Ahmad, K.**, & Ahmad, K. A. (2024). Analyzing processing time and load factor: 5-node mix network with ElGamal encryption and XOR shuffling. *International Journal of Information Technology*, Springer, 1-9. **[Indexing: Scopus]**
- VT, M. A., Omar, M., Ahamad, J., **Ahmad, K.**, & Khan, M. A. (2024). Deep Learning-Based Speed Breaker Detection. *SN Computer Science*, Springer 5(5), 571. **[Indexing: Scopus]**
- Khan, T., Singh, K., **Ahmad, K.**, & Ahmad, K. A. B. (2023). A secure and dependable trust assessment (SDTS) scheme for industrial communication networks. *Scientific Reports*, Nature 13(1), 1910. **[Indexing: SCIE, Scopus] [IF: 3.9]**
- Khan, T., Singh, K., Shariq, M., **Ahmad, K.**, Savita, K. S., Ahmadian, A., & Conti, M. (2023). An efficient trust-based decision-making approach for WSNs: Machine learning oriented approach. *Computer Communications*, 209, 217-229. **[Indexing: SCIE, Scopus] [IF: 4.3]**
- **Ahmad, K.**, Fathima, M., Hossen, M. S., Ahamed, J., & Ahmad, K. A. B. (2023). Opportunistic Networks: An Empirical Research of Routing Protocols and Mobility Models. *SN Computer Science*, 4(5), 652. **[Indexing: Scopus]**
- **Ahmad, K.**, Khujamatov, H., Lazarev, A., Usmanova, N., Alduailij, M., & Alduailij, M. (2023). Internet of Things-Aided Intelligent Transport Systems in Smart Cities: Challenges, Opportunities, and Future. *Wireless Communications and Mobile Computing*, 2023. **[Indexing: Scopus]**
- Ahsan, M. A., **Ahmad, K.**, Ahamed, J., Omar, M., & Ahmad, K. A. B. (2023). PAPQ: Predictive analytics of product quality in industry 4.0. *Sustainable Operations and Computers*, 4, 53-61. **[Indexing: Scopus]**
- Ahamed, J., Koli, A. M., **Ahmad, K.**, Jamal, M., & Gupta, B. B. (2022). CDPS-IoT: Cardiovascular Disease Prediction System Based on IoT Using Machine Learning. *International Journal of Interactive Multimedia & Artificial Intelligence*, 7(4). **[Indexing: SCIE, Scopus] [IF: 3.6]**
- Khujamatov, H., **Ahmad, K.**, Usmanova, N., Khoshimov, J., Alduailij, M., & Alduailij, M. (2022). Fog Computing Capabilities for Big Data Provisioning: Visualization Scenario. *Sustainability*, MDPI, 14(13), 8070. **[Indexing: SCIE, Scopus] [IF: 3.3]**
- Hassan, S. U., Ahamed, J., & **Ahmad, K.** (2022). Analytics of machine learning-based algorithms for text classification. *Sustainable Operations and Computers*, Elsevier, 3, 238-248. **[Indexing: Scopus]**
- Khan, T., Singh, K., Hasan, M. H., **Ahmad, K.**, Reddy, G. T., Mohan, S., & Ahmadian, A. (2021). ETERS: A comprehensive energy aware trust-based efficient routing scheme for adversarial WSNs. *Future Generation Computer Systems*, Elsevier 125, 921-943. **[Indexing: SCIE, Scopus] [IF: 6.1]**

- Saračević, M., Sharma, S. K., & **Ahmad, K.** (2021). A novel block encryption method based on Catalan random walks. *Multimedia Tools and Applications*, Springer, 1-18. **[Indexing: SCIE, Scopus] [IF: 3.6]**
- Abouarork, M., & **Ahmad, K.** (2021). Authentication in opportunistic networks: State and art. *Journal of Discrete Mathematical Sciences and Cryptography*, Taylor & Francis, 24(6), 1689-170. **[Indexing: ESCI, Scopus]**
- Pavlović, N., Šarac, M., Adamović, S., Saračević, M., **Ahmad, K.**, Maček, N., & Sharma, D. K. (2021). An approach to adding simple interface as security gateway architecture for IoT device. *Multimedia Tools and Applications*, Springer, 1-16. **[Indexing: SCIE, Scopus] [IF: 3.6]**
- **Ahmad, K.**, Kamal, A., Ahmad, K. A. B., Khari, M., & Crespo, R. G. (2021). Fast hybrid-MixNet for security and privacy using NTRU algorithm. *Journal of Information Security and Applications*, Elsevier 60, 102872. **[Indexing: SCIE, Scopus] [IF: 3.7]**
- Abouaroek, M., & **Ahmad, K.** (2021). Performance analysis of NTRU algorithm with non-post-quantum algorithms. *Journal of Discrete Mathematical Sciences and Cryptography*, Taylor & Francis, 24(5), 1349-1363. **[Indexing: ESCI, Scopus]**
- Talukdar, M. I., Hassan, R., Hossen, M. S., **Ahmad, K.**, Qamar, F., & Ahmed, A. S. (2021). Performance improvements of AODV by black hole attack detection using IDS and digital signature. *Wireless Communications and Mobile Computing*, Hindawi, 2021. **[Indexing: Scopus]**
- Hossen, M. S., **Ahmad, K.**, & Ahmad, K. A. B. (2021). Impact of contacts for message copies, mobile nodes and buffer size in delay-tolerant networks. *International Journal of Innovative Computing and Applications*, InderScience, 12(2-3), 90-97. **[Indexing: Scopus]**
- bin Ahmad, K. A., Hasan, M. N., Hossen, M. S., & **Ahmad, K.** (2021). Performance Analysis of DEBT Routing Protocols for Pocket Switch Networks. *CMC-Computers Materials & Continua*, 66(3), 3075-3087. **[Indexing: SCIE, Scopus] [IF: 3.1]**
- Hussain, D., Omar, M., Ahmad, K. A., Adnan, J., & **Ahmad, K.** (2021). Performance comparison between NoSQL (rethinkdb) and mysql database replication from master to slave in big data. *Jurnal Kejuruteraan, si4(2)*, 65-69. [https://doi.org/10.17576/jkukm-2021-si4\(2\)-10](https://doi.org/10.17576/jkukm-2021-si4(2)-10). **[Indexing: ESCI, Web of Science] [IF: 0.6]**
- **Ahmad, K.**, & Kamal, A. (2020). Mix networks: existing scenarios and future directions on security and privacy. *Recent Patents on Engineering*, Bentham Science, 14(3), 310-323. **[Indexing: ESCI, Scopus]**
- Hassan, R., Pepic, S., Saracevic, M., **Ahmad, K.**, & Tasic, M. (2020). A Novel Approach to Data Encryption Based on Matrix Computations. *Comput. Mater. Contin*, 66, 1139-1153. **[Indexing: SCIE, Scopus] [IF: 3.1]**
- **Ahmad, K.**, Sahu, M., Shrivastava, M., Rizvi, M. A., & Jain, V. (2020). An efficient image retrieval tool: query based image management system. *International Journal of Information Technology*, Springer, 12(1), 103-111. **[Indexing: Scopus]**
- Khujamatov, K., **Ahmad, K.**, Reypnazarov, E., & Khasanov, D. (2020). Markov chain based modeling bandwidth states of the wireless sensor networks of monitoring system. *International Journal of Advanced Science and Technology*, 29(4), 4889-4903. **[Indexing: Scopus]**
- Ahamed, J., Zahid, M., Omar, M., & **Ahmad, K.** (2019). AES and MQTT based security system in the internet of things. *Journal of Discrete Mathematical Sciences and Cryptography*, Taylor & Francis, 22(8), 1589-1598. **[Indexing: ESCI, Scopus]**
- Sati, S., & **Ahmad, K.** (2020). Efficient evict policy for PProPHET. *International Journal of Information Technology*, Springer, 12(1), 251-260. **[Indexing: Scopus]**
- Husain, D., Omar, M., **Ahmad, K.**, Jain, V., & Wason, R. (2019). Load status evaluation for Load Balancing in Distributed Database Servers. *3c*

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*Tecnología: glosas de innovación aplicadas a la pyme*, 8(1), 422-447. [Indexing: **ESCI**]

- Abouaroek, M., & **Ahmad, K.** (2019). Node authentication using NTRU algorithm in opportunistic network. *Scalable Computing: Practice and Experience*, 20(1), 83-92. [Indexing: **ESCI, Scopus**]
- **Ahmad, K.**, Alam, M. S., & Udzir, N. I. (2019). Security of NoSQL database against intruders. *Recent Patents on Engineering*, Bentham Science, 13(1), 5-12. [Indexing: **ESCI, Scopus**]
- Khan, I. I., **Ahmad, K.**, Rizvi, M. A., & Ahmad, K. A. B. (2019). Increased PSNR with improved DWT digital watermarking technique. *International Journal of Innovative Computing and Applications*, InderScience, 10(3-4), 185-193. [Indexing: **Scopus**]
- Shrivastava, M., Rizvi, M. A., Sahu, M., & **Ahmad, K.** (2018). IAODV: An Improved AODV Routing Protocol for MANET. *International Journal of Advanced Research in Computer Science*, 9(2).
- **Ahmad, K.**, Fathima, M., Jain, V., & Fathima, A. (2017). FUZZY-PRoPHET: a novel routing protocol for opportunistic network. *International Journal of Information Technology*, Springer, 9(2), 121-127. [Indexing: **Scopus**]
- Fathima, M., **Ahmad, K.**, & Fathima, A. (2017). Mobility Models and Routing Protocols in Opportunistic Networks: A Survey. *International Journal of Advanced Research in Computer Science*, 8(5).
- **Ahmad, K.**, & Alam, M. S. (2016). E-commerce security through elliptic curve cryptography. *Procedia Computer Science*, Elsevier, 78, 867-873. [Indexing: **Scopus**]

### Conference Papers:

- Noorain, A., **Ahmad, K.** & Ricci, L. E. M. (2025). Impact of Coalesce Access Control Mechanisms in Distributed Ledger Technology. In *2025 6th International Conference on Data Analytics & Management (ICDAM-2025)*, London. Springer, 13-15 June 2025. [Indexing: **Scopus**]
- Zafar, N., & **Ahmad, K.** (2025). Blockchain-Based Self-Sovereign Identity for Ensuring Traceability and Provenance in Online Social Networks. In *International Conference on Data Analytics & Management (pp. 151-165)*. Singapore: Springer Nature Singapore. [Indexing: **Scopus**]
- Tabassum, Z., Arsheen, S., **Ahmad, K.**, & Ozdemir, G. (2024). Blockchain-Based Secure e-KYC Solution for Banking System. In *2024 IEEE 16th International Conference on Computational Intelligence and Communication Networks (CICN)* (pp. 565-571). IEEE. [Indexing: **Scopus**]
- Zafar, N., & **Ahmad, K.** (2024). Blockchain-Based Self-Sovereign Identity for Ensuring Traceability and Provenance in Online Social Networks. In *2024 5th International Conference on Data Analytics & Management (ICDAM-2024)*, London. Springer, 14-15 June 2024. [Indexing: **Scopus**]
- **Ahmad, K.**, Ricci, L. E. M., Baiardi, F., & Arsheen, S. (2023). Hyperledger Fabric Enabled Vaccine Intelligent Network to Implement Immunization Program. In *2023 IEEE 12th International Conference on Communication Systems and Network Technologies (CSNT)* (pp. 822-828). IEEE. [Indexing: **Scopus**]
- Naikoo, F., **Ahmad, K.**, & Ahmad, K. A. B. (2022). Anonymity-Enabled Mix Network: Owing to Techniques and Proof of correctness. In *2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)* (pp. 176-181). IEEE. [Indexing: **Scopus**]
- Khujamatov, H., Akhmedov, N., Amir, L., & **Ahmad, K.** (2022). Blockchain Adaptation in Healthcare: SWOT Analysis. In *International Conference on Network Security and Blockchain Technology* (pp. 346-355). Springer, Singapore. [Indexing: **Scopus**]
- Arsheen, S., & **Ahmad, K.** (2022). Blockchain-Enabled Immunization System: A Novel Idea to Leverage Reliability and Traceability. In *2022 3rd*

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- International Conference for Emerging Technology (INCET)* (pp. 1-5). IEEE. **[Indexing: Scopus]**
- Naikoo, F., **Ahmad, K.**, & Ahmad, K. A. B. (2022). Anonymity-Enabled Communication Channels: Attacks and Defense Methods. In *2022 3rd International Conference for Emerging Technology (INCET)* (pp. 1-6). IEEE. **[Indexing: Scopus]**
  - Arsheen, S., & **Ahmad, K.** (2021). SLR: A Systematic Literature Review on Blockchain Applications in Healthcare. In *2021 International Conference on Information Science and Communications Technologies (ICISCT)* (pp. 1-6). IEEE. **[Indexing: Scopus]**
  - Abbas, S., & **Ahmad, K.** (2021). Opportunistic Routing Protocols Based on Fuzzy Logic: Present and Future Directions. In *2021 International Conference on Artificial Intelligence and Smart Systems (ICAIS)* (pp. 1055-1060). IEEE. **[Indexing: Scopus]**
  - Arsheen, S., Wahid, A., **Ahmad, K.**, & Khalim, K. (2020). Flying ad hoc network expedited by DTN scenario: Reliable and cost-effective MAC protocols perspective. In *2020 IEEE 14th International Conference on Application of Information and Communication Technologies (AICT)* (pp. 1-6). IEEE. **[Indexing: Scopus]**
  - Dubey, S., Verma, K., Rizvi, M. A., & **Ahmad, K.** (2018). SWOT analysis of cloud computing environment. In *Big Data Analytics* (pp. 727-737). Springer, Singapore. **[Indexing: Scopus]**
  - Sati, S., Sohoub, A., Eltahar, A., Ahmad, K. A. B., **Ahmad, K.**, & Bakeer, A. (2018). Degree contact DC-epidemic routing protocol for opportunistic networks. In *2018 Advances in Wireless and Optical Communications (RTUWO)* (pp. 198-203). IEEE. **[Indexing: Scopus]**
  - **Ahmad, K.**, Wahid, A., Quadri, M. P., & Fathima, A. (2015). Parallel virtualization in IaaS in community cloud. In *2015 Fifth International Conference on Communication Systems and Network Technologies* (pp. 1071-1075). IEEE. **[Indexing: Scopus]**
  - **Ahmad, K.**, Kumar, G., Rizvi, M. A., & Fathima, A. (2015). A Novel Approach to Enhance QoS of Cell Edge User. In *Emerging Trends in Information Technology* (pp. 86-94). Shroff Publishers. Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, India.
  - Wahid, A., **Ahmad, K.**, Tyagi, G., & Rizvi, M. A. (2014). Anti-theft cloud apps for android operating system. In *2014 International Conference on Computational Intelligence and Communication Networks* (pp. 765-769). IEEE. **[Indexing: Scopus]**
  - Chaudhary, A., **Ahmad, K.**, & Rizvi, M. A. (2014). E-commerce security through asymmetric key algorithm. In *2014 Fourth International Conference on Communication Systems and Network Technologies* (pp. 776-781). IEEE. **[Indexing: Scopus]**
  - Kumar, G., **Ahmad, K.**, Saurabh, A. K., & Doja, M. N. (2014). Data prevention from unauthorized access by Unclassified Attack in Data Warehouse. In *2014 International Conference on Computing for Sustainable Global Development (INDIACom)* (pp. 734-738). IEEE. **[Indexing: Scopus]**
  - Tyagi, G., **Ahmad, K.**, & Doja, M. N. (2014). A novel framework for password securing system from key-logger spyware. In *2014 International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT)* (pp. 70-74). IEEE. **[Indexing: Scopus]**
  - Wahid, A., Kirmani, M. M., Chaudhary, A., & **Ahmad, K.** (2014). Software Estimation Technique Based on Arithmetic Progression. In *2014 Elsevier Proceedings of International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA-14)* (234-238). Elsevier.
  - **Ahmad, K.**, Wahid, A., Yadava, P., & Kumar, G. (2014). Increasing False Rejection Rate While Accepting Entries in Presence of CAPTCHA. In *2014 Elsevier Proceedings of International Conference on Emerging Research in*
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### Chapters:

- Malla, N. A., **Ahmad, K.**, Ricci, L., & Ahmad, K. A. B. (2024). The pandemic: blockchain-based e-voting system, the way forward. In *Diagnosis and Analysis of COVID-19 Using Artificial Intelligence and Machine Learning-based Techniques* (pp. 381-392). Academic Press-Elsevier.
- Kamal, A., **Ahmad, K.**, Hassan, R., & Khalim, K. (2021). NTRU Algorithm: Nth Degree Truncated Polynomial Ring Units. In *Functional Encryption* (pp. 103-115). Springer, Cham.
- Dulhare, U. N., Mubeen, A., & **Ahmad, K.** (2020). Hands-on H2O machine learning tool. *Machine Learning and Big Data: Concepts, Algorithms, Tools and Applications*, 423-453.
- **Ahmad, K.**, Kamal, A., & Ahmad, K. A. B. (2019). Discrete logarithm problem. In *Emerging Security Algorithms and Techniques* (pp. 47-57). Chapman and Hall/CRC.
- **Ahmad, K.**, Kamal, A., & Ahmad, K. A. B. (2019). Prime Number. In *Emerging Security Algorithms and Techniques* (pp. 27-45). Chapman and Hall/CRC.
- Dulhare, U. N., & **Ahmad, K.** (2019). Hands-On "SageMath". In *Emerging Security Algorithms and Techniques* (pp. 293-308). Chapman and Hall/CRC.
- Ranjan, R., Mukherjee, A., Rai, P., & **Ahmad, K.** (2019). Asymmetric Cryptography. In *Emerging Security Algorithms and Techniques* (pp. 119-137). Chapman and Hall/CRC.
- Abouaroek, M., & **Ahmad, K.** (2018). Foundations of opportunistic networks. In *Opportunistic Networks* (pp. 1-10). Chapman and Hall/CRC.
- **Ahmad, K.**, Fathima, M., & bin Ahmad, K. A. (2018). Taxonomy of Routing Protocols for Opportunistic Networks. In *Opportunistic Networks* (pp. 85-116). Chapman and Hall/CRC.
- **Ahmad, K.**, & Shareef, A. (2018). Hands-On Kernel-Based Virtual Machine (KVM). In *Design and Use of Virtualization Technology in Cloud Computing* (pp. 182-193). IGI Global.
- **Ahmad, K.**, Ansari, M., & Kamal, A. (2018). Hands-On Xen: Installation Guide for Xen Server. In *Design and Use of Virtualization Technology in Cloud Computing* (pp. 221-232). IGI Global.
- **Ahmad, K.**, & Ansari, M. (2018). Hands-On Vagrant. In *Design and Use of Virtualization Technology in Cloud Computing* (pp. 208-220). IGI Global.
- **Ahmad, K.**, & Kamal, A. (2017). Hands-On Aerospike. In *NoSQL: Database for Storage and Retrieval of Data in Cloud* (pp. 311-322). Chapman and Hall/CRC. [**Indexing: Scopus**]
- Ansari, M., & **Ahmad, K.** (2017). Hands-On Cloudant. In *NoSQL: Database for Storage and Retrieval of Data in Cloud* (pp. 333-340). Chapman and Hall/CRC. [**Indexing: Scopus**]
- **Ahmad, K.**, & Javed, M. (2017). Hands-On Redis. In *NoSQL: Database for Storage and Retrieval of Data in Cloud* (pp. 355-364). Chapman and Hall/CRC. [**Indexing: Scopus**]
- Hussain, D., & **Ahmad, K.** (2017). Hands-On RethinkDB. In *NoSQL: Database for Storage and Retrieval of Data in Cloud* (pp. 365-376). Chapman and Hall/CRC. [**Indexing: Scopus**]
- **Ahmad, K.**, & Haseeb, A. (2017). Hands-On Cassandra for Windows. In *NoSQL: Database for Storage and Retrieval of Data in Cloud* (pp. 323-332). Chapman and Hall/CRC. [**Indexing: Scopus**]
- **Ahmad, K.**, & Ansari, M. (2017). Hands-on InfluxDB. In *NoSQL: Database for Storage and Retrieval of Data in Cloud* (pp. 341-354). Chapman and Hall/CRC. [**Indexing: Scopus**]
- Wahid, A., Quadri, M. P., Siddiqui, A. T., Kirmani, M. M., & **Ahmad, K.** (2015). Verifiable Response in Heterogeneous Cloud Storage: An Efficient KDC

DETAILS OF  
CONFERENCE/SEMINAR  
/WORKSHOP/FDP  
(PARTICIPATED/PRESEN  
TED/ORGANIZED)

#### Workshop/FDP Organized:

- Coordinated the online mode in “**E-Content Development and Online Pedagogy**” from 25-10-2021 to 30-10-2021 organized by the UGC - Human Resource Development Centre, Maulana Azad National Urdu University, Hyderabad, India.
- organized by the UGC - Human Resource Development Centre, Maulana Azad National Urdu University, Gachibowli, Hyderabad. Organized DRDO Sponsored Faculty Development Program on “**Cyber Security and Forensic**” as a **Convener** from 17-02-2020 to 18-02-2020 at the Department of Computer Science and Information Technology, Maulana Azad National Urdu University, Hyderabad, India.
- Organized Teaching Learning Centre (TLC), NITTTR Bhopal Sponsored Workshop on “**Training of Trainers (ToT) for Teachers**” as a **Coordinator** from 11 November 2019 to 15 November 2019 at the Department of Computer Science and Information Technology, Maulana Azad National Urdu University, Hyderabad, India.

#### Workshop/FDP Participated:

- Participated in 12 Weeks NPTEL-AICTE Online Faculty Development Program on “**Blockchain and Its Application**” from 22-01-2024 to 12-04-2024 at Indian Institute of Technology Kharagpur, India.
- Participated in One Week Online Faculty Development Program on “**Emerging Research Trends in Computer Science**” from 16-01-2024 to 20-01-2024 at The School of Computer Science and Information Technology, Maulana Azad National Urdu University, India.
- Participated in One Week Online Faculty Development Program on “**Artificial Intelligence and Quantum Machine Learning (AI & QML)**” from 20-11-2023 to 25-11-2023 at The School of Computer Science and Information Technology, Maulana Azad National Urdu University, India under ATAL Academy.
- Participated in One Week Online AICTE-ISTE approved Orientation/Refresher Programme on “**Pedagogy Workshop on Innovative Teaching and Learning**” Organized by Gandhi Institute For Technology (GIFT), Odisha, India.
- Participated in One Week Online Faculty Development Program on “**Blockchain**” from 14-06-2021 to 18-06-2021 at The LNM Institute of Information Technology, India under ATAL Academy.
- Participated in One Week Online International STTP on “**Blockchain for Digital Transformation**” from 12-08-2021 to 16-08-2021 at CBIT(A), Hyderabad, Telangana, India.
- Participated in One Week Online Workshop on “**Cyber Security and Digital Forensics**” from 26-08-2021 to 30-08-2021 at Aligarh Muslim University, India.
- Participated in One Week Online Faculty Development Program on “**Data Science**” from 22-11-2021 to 26-11-2021 at The School of Computer Science and Information Technology, Maulana Azad National Urdu University, India under ATAL Academy.
- Participated in the 22<sup>nd</sup> International Conference on Cryptology in India (**INDOCRYPT 2021**) held at the LNM Institute of Information Technology, Jaipur from 13 December 2021-15 December 2021.

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- Participated in the National Seminar on “**Synergizing Higher Education in the Context of NEP-2020: Strategies for Implementation**” at Osmania University, Hyderabad, India on 22 December 2021-23 December 2021.
  - Participated in One Week Online Training Programme on “**Blockchain Technology and Applications**” from 17-10-2020 to 22-10-2020 at PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur, India.
  - Participated in One Week Online Faculty Development Program on “**Blockchain**” from 31-08-2020 to 04-09-2020 at the University Institute of Engineering and Technology, India under ATAL Academy.
  - Participated in One Week Online National Instructional Workshop on “**Cryptology**” from 22-07-2020 to 06-07-2020 at the School of Computer and Systems Sciences, Jawaharlal Nehru University, New Delhi, India.
  - Participated in Two Days Online Workshop on “**Introduction to Blockchain**” from 30-07-2020 to 31-07-2020 at the Army Institute of Technology, India.
  - Participated in One Week Online Faculty Development Program on “**Blockchain and Machine Learning**” from 29-06-2020 to 03-07-2020 at Gurukula Kangri Vishwavidyalaya, India under ATAL Academy.
  - Participated in One Week Online Faculty Development Program on “**Python for Data Science**” from 24-06-2020 to 28-06-2020 Organized by MITS-Madanapalle, AP, India.
  - Participated in One Week Online Faculty Development Program on “**Blockchain Technology**” from 08-06-2020 to 12-06-2020 Organized by Finland Labs (A Unit of Revert Technology Pvt. Ltd.) In Association with National Social Summit, IIT Roorkee.
  - Participated in Two Weeks DST. Govt. of India Sponsored Faculty Development Program on “**Sensor Networks, Internet of Things and Internet of Everything**” from 25-11-2019 to 08-12-2019 at Department of CS & IT, Maulana Azad National Urdu University, Hyderabad.
  - Participated in UGC-Sponsored Refresher Course in the Subject “**FDP in Computer Science & Information Technology**” from 25-07-2019 to 07-08-2019 at UGC-HRDC, Maulana Azad National Urdu University, Hyderabad, India.
  - Participated in a days Faculty Development Program on “**Student Induction**” from 09-05-2019 to 11-05-2019 Organized by AICTE-SCRO, Hyderabad at IARE, Hyderabad.
  - Participated in One Week Faculty Development Program on “**Artificial Intelligence and Machine Learning**” from 05-02-2018 to 10-02-2018 Meity, Govt. of India, Sponsored FDP Organized by NIT, Warangal and Vardhman College of Engineering, Hyderabad.
  - Participated in Two Days Workshop on “**Number Theory & Its Application**” from 19 March 2018 to 20 March 2018 at the Department of Mathematics & Statistics, University of Hyderabad under UGC-SAP-DSA I.
  - Participated in Three Weeks UGC Sponsored Refresher Course on “**Computer Science, Bio-Informatics & Information Technology**” from 08-08-2017 to 28-08-2017 at UGC-HRDC, Maulana Azad National Urdu University, Hyderabad, India.
  - Participated in One Week Short Term Course on “**Induction Programme for Newly Appointed Assistant Professors**” from 17 October 2016 to 23 October 2016 organized by UGC-HRDC, Aligarh Muslim University, India.
  - Participated in One Week Faculty Development Program on “**Algorithms**” from 20 September 2016 to 27 September 2016 at the Department of CSE, JNTU Hyderabad under TEQIP-II.
  - Participated in Three Days International Workshop on “**SMT Solvers Based Cryptanalysis**” from 27 June 2016 to 29 June 2016 at C.R. Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS), University of Hyderabad Campus, India.
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- Participated in Workshop on **“Cyber Security & Malware Analysis”** on 2<sup>nd</sup> November 2016 at Maulana Azad National Urdu University, Hyderabad.
  - Participated in **“93<sup>rd</sup> Orientation Course”** from 26 November 2015 to 23 December 2015 at UGC\_HRDC, University of Hyderabad, Hyderabad, India.
  - Participated in a Workshop on **“Information Security Education Awareness”** on 25<sup>th</sup> February 2014 at MANUU Organized by CSI Hyderabad Chapter and CDAC.

#### **Paper Presented:**

- Presented a paper **“Impact of Coalesce Access Control Mechanisms in Distributed Ledger Technology”** at the 6<sup>th</sup> Springer International Conference on Data Analytics and Management (ICDAM-2025), organized jointly by London Metropolitan University, London, UK in association with the WSG University, Bydgoszcz, Poland, Europe, Portalegre Polytechnic University, Portugal, Europe, SGGW Management Institute & BPIT, GGSIPU, Delhi on 13<sup>th</sup> – 15<sup>th</sup> June 2025.
- Presented a paper on **“Hyperledger Fabric Powered Decentralized Multimedia Management System”** at International Conference on Computational Methods, Data Science & Networking (ICCMDN-2025) organized by the Department of Computer Science and Information Technology, Maulana Azad National Urdu University (A Central University), Hyderabad, India held on 16-17 January 2025.
- Presented a paper **“Blockchain-Based Self-Sovereign Identity for Ensuring Traceability and Provenance in Online Social Networks”** at the 5<sup>th</sup> Springer International Conference on Data Analytics and Management (ICDAM-2024), organized jointly by London Metropolitan University, London, UK in association with the WSG University, Bydgoszcz, Poland, Europe, Portalegre Polytechnic University, Portugal, Europe, SGGW Management Institute & BPIT, GGSIPU, Delhi on 14<sup>th</sup> – 15<sup>th</sup> June 2024.
- Presented a paper on **“Hyperledger Fabric Enabled Vaccine Intelligent Network to Implement Immunization Program”** at the 12<sup>th</sup> IEEE International Conference on Communication Systems and Network Technologies (CSNT-2023) organized by Technocrats Institute of Technology (Excellence) Bhopal, India on 8<sup>th</sup>-9<sup>th</sup> April 2023
- Presented a paper on **“Access Control Mechanism in Distributed Ledgers Technologies-Review and Challenges”** at the 8<sup>th</sup> International Conference on Research in Intelligent Computing in Engineering (RICE-2023) Organized by Maulana Azad National Urdu University, Hyderabad, India on 01-02 December 2023.
- Presented a paper on **“TrustNetIoT: A Blockchain Framework for Enhanced Security”** at the 8<sup>th</sup> International Conference on Research in Intelligent Computing in Engineering (RICE-2023) Organized by Maulana Azad National Urdu University, Hyderabad, India on 01-02 December 2023.
- Presented a paper on **“Anonymity-Enabled Communication Channels: Attacks and Defense Methods”** at the 3<sup>rd</sup> IEEE International Conference of Emerging Technology (INCET 2022) Organized by Jain College of Engineering Belagavi, India on 27<sup>th</sup> -29<sup>th</sup> May 2022.
- Presented a paper on **“Blockchain-Enabled Immunization System: A Novel Idea to leverage Reliability and Traceability”** at the 3<sup>rd</sup> IEEE International Conference of Emerging Technology (INCET 2022) Organized by Jain College of Engineering Belagavi, India on 27<sup>th</sup> -29<sup>th</sup> May 2022
- Presented a paper on **“SLR: A Systematic Literature Review on Blockchain Applications in Healthcare”** at the IEEE International Conference on Information Science and Communications Technologies ICISCT 2021 Organized by Tashkent University of Information Technologies named after Muhammad al-Khwarizmi on 03-05 November 2021.
- Presented a paper on **“Opportunistic Routing Protocols Based on Fuzzy Logic: Present and Future Directions”** at the IEEE International

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Conference on Artificial Intelligence and Smart Systems (ICAIS 2021)  
Organized by JCT College of Engineering and Technology, Tamilnadu, India  
on 25<sup>th</sup>-27<sup>th</sup> March 2021.

- Presented a paper on **“Node Authentication in Opportunistic Networks: A Survey”** at the National Conference on Emerging Trends and Issues in Information Technology & Communication (ETIITC-18) Organized by Maulana Azad National Urdu University, Hyderabad, India on 17<sup>th</sup>-18<sup>th</sup> March 2018.
- Presented a paper on **“A Secured and Efficient Mixnet Using Light Cryptography”** at the National Conference on Emerging Trends and Issues in Information Technology & Communication (ETIITC-18) Organized by Maulana Azad National Urdu University, Hyderabad, India on 17<sup>th</sup>-18<sup>th</sup> March 2018.
- Presented a paper on **“Secure Mobile Commerce in Ad hoc Network Using CAEC2M”** at the 2<sup>nd</sup> International Conference on Recent Trends in Computer Science and Electronics (RTCSE-2017) Organized by Gyancity Research Lab, MIR Lan in collaboration with Aalborg University, Denmark in Kaula Lumpur, Malaysia on 02-03 January 2017.
- Presented a paper on **“An Improved Task Scheduling Algorithm on E-Learning Using Cloud”** at the 1<sup>st</sup> International Conference on Computers and Electronics Engineering (ICCEE-2016) Organized by IRSSED, Hyderabad on 9<sup>th</sup> -10<sup>th</sup> January 2016.
- Presented a paper on **“Secure Communication in Opportunistic Network Using ECC-Mixnet”** at the International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016) Organized by Jaipur National University, India on 17<sup>th</sup>-19<sup>th</sup> March 2016.
- Presented a paper on **“Software Estimation Technique Based on Arithmetic Progression”** at the Elsevier Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA-2014) Organized by Nitte Meenakshi Institute of Technology (NMIT) Bangalore, India on 01-02 August 2014.
- Presented a paper on **“Increasing False Rejection Rate While Accepting Entries in Presence of CAPTCHA”** at the Elsevier Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA-2014) Organized by Nitte Meenakshi Institute of Technology (NMIT) Bangalore, India on 01-02 August 2014.

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DETAILS OF KEYNOTE  
SPEAKER/RESOURCE  
PERSON/ SESSION CHAIR  
ETC.

- Delivered the **Lecture on “Blockchain Technology and Use Cases”** in the Five Days Faculty Development Programme on “Emerging Research Trends in Computer Science,” 16-24 January 2024, organized by the Department of Computer Science and Information Technology, Maulana Azad National Urdu University, Hyderabad.
- Delivered the **Lecture on “Blockchain Technology”** in the Faculty Development Programme on “Cyber Security in the Era of Artificial Intelligence”, 21<sup>st</sup> September 2023, organized by the Department of Computer Science, Baba Ghulam Shah Badshah University, J&K.
- Delivered the **Lecture on “Blockchain Technology”** in the Refresher Course on Information Technology on 24<sup>th</sup> July 2023, organized by UGC-HRDC, University of Kashmir, Kashmir, India
- Delivered the **Invited Lecture on “Hands-on Blockchain Based Cyber Security”** in ATAL FDP on Cyber Security, 6-10 December 2021, Organized by Jawaharlal Nehru University (A Central University), Delhi, India.
- Delivered the **Invited Talk on “Role of Blockchain Technology in Digital Era”** in IEEE International Conference on Information Science and Communications Technologies (ICISCT 2021), 3<sup>th</sup>, 4<sup>th</sup> and 5<sup>th</sup> of November 2021 organized by Tashkent Uzbekistan Tashkent University of Information Technologies, Tashkent, Uzbekistan.

- Delivered the **Invited Talk on “Blockchain Technology”**, 30 October 2021 Organized by BIT Sindri, Dhanbad, India.
- Delivered the **Invited Talk on “eContent Development”** in the Workshop on eContent Development and Online Pedagogy from 25 Oct to 30 October 2021 Organized by UGC-HRDC, Maulana Azad National Urdu University, Hyderabad, India.
- Delivered the **Invited Talk on “Role of Blockchain Technology in Digital Era”** in FDP on Cyber Security in Digital Era, 23-27 August 2021 Organized by Department of Computer Sciences, Baba Ghulam Shah Badshah University, J&K, India.
- Delivered the **Invited Lecture on “e-Voting System Using Blockchain”** at Department of Computer Science and Engineering, GIET University, Odisha, India on 22 August 2021.
- **Chaired the Session** in National Conference on Computational Methods, Data Science and Applications (CMDSA-2021), 24-25 May 2021 Organized by Department of Computer Science and Information Technology, Maulana Azad National Urdu University (A Central University), India.
- Delivered the **Invited Lecture on “Tools for Literature Review”** in a Five-Day Online Workshop on Research Methodology and ICT Tools for Research, 11-19 April 2021 Organized by Maulana Azad National Urdu University (A Central University) in collaboration with Telangana State Urdu Academy, Hyderabad, India.
- Delivered the **Invited Talk on “Impact of Blockchain Technology on IR 4.0”** in 3rd International Conference on Communication and Computing system (ICCCS-2021), 5-7 February 2021 Organized by Jawahar Lal Nehru University (A Central University), Delhi, India.
- **Chaired the Session** in 3rd International Conference on Communication and Computing system (ICCCS-2021), 5-7 February 2021 Organized by Jawahar Lal Nehru University (A Central University), Delhi, India.
- Delivered the **Expert Lecture on “Blockchain Technology”** at Department of Computer Science and Engineering, Sangam University, Rajasthan, India on 28<sup>th</sup> December 2020.
- Delivered the **Invited Talk on “Delving IR 4.0 Applications using Blockchain”** in 5th International Conference on Defence & Security Technology (DSTC 2020), 3<sup>th</sup> and 4<sup>th</sup> of December 2020 Organized Faculty of Engineering, National Defence University of Malaysia, Malaysia.
- Delivered the **Invited Talk on “Delving IR 4.0 Applications using Blockchain”** in IEEE International Conference on Information Science and Communications Technologies (ICISCT 2020), 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> of November 2020 organized by Tashkent Uzbekistan Tashkent University of Information Technologies, Tashkent, Uzbekistan.
- **Chaired the Session** in the 1<sup>st</sup> International Conference on Networks and Cryptology organized by School of Computer and System Sciences, Jawaharlal Nehru University (A Central University), New Delhi, India held on 14-16 June 2019.
- Delivered the **Invited Lecture on “Cloud Computing Tools”** at UGC-Human Resource Development Centre, Jawaharlal Nehru Technological University, Hyderabad, India on 21<sup>st</sup> February 2019.
- **Chaired the Session** in the 2<sup>nd</sup> International Conference on Computer Science and Electronics, Jan 02-03, 2017, Kuala Lumpur, Malaysia.
- **Chaired the Session** in the 1<sup>st</sup> International Conference on Computer and Electronics Engineering, Jan 9-10, 2016, Hyderabad, India.
- Delivered the **Guest Lecture on “Network security”** at the Department of Computer Science, Telangana University, Telangana, India on 1<sup>st</sup> April 2015.

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#### ACHIEVEMENTS

- Presented a paper **“Impact of Coalesce Access Control Mechanisms in Distributed Ledger Technology”** at the 6<sup>th</sup> Springer International Conference on Data Analytics and Management (ICDAM-2025), organized
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jointly by London Metropolitan University, London, UK in association with the WSG University, Bydgoszcz, Poland, Europe, Portalegre Polytechnic University, Portugal, Europe, SGGW Management Institute & BPIT, GGSIPU, Delhi on 13<sup>th</sup> – 15<sup>th</sup> June 2025. **(Best Paper Award)**

- Presented a paper on **“Hyperledger Fabric Powered Decentralized Multimedia Management System”** at International Conference on Computational Methods, Data Science & Networking (ICCMDN-2025) organized by the Department of Computer Science and Information Technology, Maulana Azad National Urdu University (A Central University), Hyderabad, India held on 16-17 January 2025. **(Best Paper Award)**
- Presented paper on **“Performance Analysis of NTRU Algorithm With Non Post-Quantum Cryptography Algorithms”** at 2<sup>nd</sup> International Conference on Networks and Cryptology organized by School of Computer and System Sciences, Jawaharlal Nehru University, New Delhi, India held on 4-6 December 2020. **(Best Paper Award)**
- Presented paper on **“Secure Mobile Commerce in Ad hoc Network Using CAEC<sup>2</sup>M”** at 2<sup>nd</sup> International Conference on Recent Trends in Computer Science and Electronics (RTCSE-2017) at Kuala Lumpur, Malaysia, **02-03 January 2017. (Award of Research Excellence)**

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DETAILS OF SUPERVISION  
(M.TECH/PH.D.)

Ph.D.: 03 Awarded  
03 Ongoing  
M.Tech & MCA: 20+ Awarded  
B.Tech.: 20+ Awarded

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PROFESSIONAL  
MEMBERSHIPS

- Life Membership of the Indian Science Congress Association (ISCA).
  - Life Membership No: L27764
- Life Membership of Indian Society for Technical Education (ISTE), India.
  - Membership No: LM 71999
- Life Membership of Cryptography Research Society of India (CRSI), India.
  - Membership No: L/388
- Life Membership of International Association Engineers (IAENG), Hong Kong).
  - Membership No: 107176
- Life Membership of International Association of Computer Science and Information Technology (IACSIT), Singapore.
  - Membership No: 80339566

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PERSONAL DETAILS

**Father’s Name** : Mr. Abdul Hamid Khan  
**Gender** : Male  
**Nationality** : Indian  
**Language Known** : English, Urdu, Hindi

Date: 22/04/2026

Place: Hyderabad

(Dr. Khaleel Ahmad)