

Analyzing and investigating encrypted traffic for social media application Instagram

Iqbal, Hameed; Ahmad, Rizwan; Ahmed, Waqas; Qazi, Shams; **Alam, Muhammad Mahtab** 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p. : ill <https://doi.org/10.1109/BEC56180.2022.9935603>

DAAG-SNP: energy efficient distance and angulation based agglomerative clustering for sink node placement

Hanif, Maria; Ahmad, Rizwan; Ahmed, Waqas; Driberg, Micheal; **Alam, Muhammad Mahtab** IEEE Open Journal of the Communications Society 2024 / p. 5013-5026 <https://doi.org/10.1109/OJCOMS.2024.3421901> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Device-to-device discovery and localization assisted by UAVs in pervasive public safety networks

Masood, Ali; Sharma, Navuday; Alam, Muhammad Mahtab; Le Moullec, Yannick; Scazzoli, Davide; Magarini, Maurizio; Ahmad, Rizwan Proceedings of the ACM MobiHoc workshop on innovative aerial communication solutions for First Responders network in emergency scenarios : iFIRE '19, Catania, Italy, July 2-5, 2019 2019 / p. 6-11 <https://doi.org/10.1145/3331053.3335031>

A DRL strategy for optimal resource allocation along with 3D trajectory dynamics in UAV-MEC network

Khurshid, Tayyaba; Ahmed, Waqas; Rehan, Muhammad; Ahmad, Rizwan; **Alam, Muhammad Mahtab;** Radwan, Ayman IEEE Access 2023 / p. 54664 - 54678 <https://doi.org/10.1109/ACCESS.2023.3278591> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dynamic slot allocation using non overlapping backoff algorithm in IEEE 802.15.6 WBAN

Saboor, Abdul; Ahmad, Rizwan; Ahmed, Waqas; Kiani, Adnan Khalid; **Alam, Muhammad Mahtab;** Kuusik, Alar; **Le Moullec, Yannick** IEEE sensors journal 2020 / p. 10862-10875 : ill <https://doi.org/10.1109/JSEN.2020.2993795> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy efficiency and latency optimization for IoT URLLC and mMTC use cases

Elgarhy, Osama Mohamed Mostafa; Reggiani, Luca; **Alam, Muhammad Mahtab;** Zoha, Ahmed; Ahmad, Rizwan; **Kuusik, Alar** IEEE Access / p. 23132-23148 <https://doi.org/10.1109/ACCESS.2024.3364349> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at Scopus](#)

Interference and priority aware coexistence (IPC) algorithm for link scheduling in IEEE 802.15.6 based WBANs

Khan, Fawad Nawaz; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab;** Driberg, Micheal IEEE Access 2019 / art. 8910561, p. 168736–168751 : ill [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A machine learning approach to achieving energy efficiency in relay-assisted LTE-a downlink system

Hassan, Hammad; Ahmed, Ifran; Ahmad, Rizwan; Khammari, Hedi; Bhatti, Ghulam; Ahmed, Waqas; **Alam, Muhammad Mahtab** Sensors 2019 / art. 3461, 25 p. : ill <https://doi.org/10.3390/s19163461> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Managing critical nodes in UAV assisted disaster networks

Hassan, Ali; Ahmad, Rizwan; Ahmed, Waqas; Magarini, Maurizio; **Alam, Muhammad Mahtab** 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2021 / 6 p. : ill <https://doi.org/10.1109/BEC49624.2020.9276993>

Network coding and hierarchical modulation for energy efficient cooperative WBAN

Waheed, Maham; Talha, Sadaf; Ahmad, Rizwan; Kiani, Adnan Khalid; **Alam, Muhammad Mahtab;** Ahmed, Waqas International journal of distributed systems and technologies 2019 / p. 90-111 <https://doi.org/10.4018/IJDS.2019070106> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On coverage of critical nodes in UAV-assisted emergency networks

Waheed, Maham; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab;** Magarini, Maurizio Sensors 2023 / art. 1586 <https://doi.org/10.3390/s23031586> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On research challenges in hybrid medium-access control protocols for IEEE 802.15.6 WBANs

Saboor, Abdul; Ahmad, Rizwan; Ahmed, Waqas; Kiani, Adnan Khalid; **Le Moullec, Yannick; Alam, Muhammad Mahtab** IEEE Sensors Journal 2019 / p. 8543 - 8555 <https://doi.org/10.1109/JSEN.2018.2883786> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal sliding window selection in non-overlapping backoff algorithm for IEEE 802.15.6 WBAN

Saboor, Abdul; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab;** Radwan, Ayman IEEE communications letters 2024 / p. 1467-1471 <https://doi.org/10.1109/LCOMM.2024.3384755> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimizing the deployment of multi-UAVs in emergency response networks

Hassan, Ali; Javed, Sadaf; Ahmad, Rizwan; Ahmed, Waqas; Kiani, Adnan; **Alam, Muhammad Mahtab** 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 6 p <https://doi.org/10.1109/BEC61458.2024.10737973> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Performance analysis of interference and priority aware coexistence in IEEE 802.15.6 based WBANs

Khan, Fawad Nawaz; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab**; Drieber, Micheal 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 5 p <https://doi.org/10.1109/BEC49624.2020.9277066>

Performance evaluation of distance-based random mean shift clustering and humpback whale optimization algorithm for sink node placement in WBAN

Hanif, Maria; Ahmad, Rizwan; Ahmed, Waqas; Drieberg, Micheal; **Alam, Muhammad Mahtab** BODYNETS 2021: Body Area Networks. Smart IoT and Big Data for Intelligent Health Management : 18th EAI International Conference, BODYNETS 2024-A, Milan, Italy, February 5-6, 2024, Proceedings 2024 / p. 225 - 245 https://doi.org/10.1007/978-3-031-72524-1_17 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Power aware ON/OFF switching schemes for energy efficient phantom cellular networks

Anjum, M Naveed; Ahmad, Rizwan; Hassan, Ali; Ahmed, Waqas; **Alam, Muhammad Mahtab** 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p <https://doi.org/10.1109/BEC56180.2022.9935605>

A primer on public safety communication in the context of terror attacks: the NATO SPS "COUNTER-TERROR" project

Alam, Muhammad Mahtab; Le Moullec, Yannick; Ahmad, Rizwan; Magarini, Maurizio; Reggiani, Luca Advanced Technologies for Security Applications : Proceedings of the NATO Science for Peace and Security 'Cluster Workshop on Advanced Technologies', 17-18 September 2019, Leuven, Belgium 2020 / p. 19-34 https://doi.org/10.1007/978-94-024-2021-0_3 [Article collection metrics at Scopus](#) [Article at Scopus](#)

ProSe direct discovery : experimental characterization and context-aware heuristic approach to extend public safety networks lifetime

Masood, Ali; **Alam, Muhammad Mahtab**; Le Moullec, Yannick; Reggiani, Luca; Scazzoli, Davide; Magarini, Maurizio; Ahmad, Rizwan IEEE Access 2021 / p. 130055 –130071 <https://doi.org/10.1109/ACCESS.2021.3112751> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A reinforcement learning routing protocol for UAV aided public safety networks

Minhas, Hassan Ishtiaq; Ahmad, Rizwan; Ahmed, Waqas; Waheed, Maham; **Alam, Muhammad Mahtab**; Gul, Sufi Tabassum Sensors 2021 / Art. nr. 4121 <https://doi.org/10.3390/s21124121> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Surveying pervasive public safety communication technologies in the context of terrorist attacks

Masood, Ali; Scazzoli, Davide; **Sharma, Navuday**; Le Moullec, Yannick; Ahmad, Rizwan; Reggiani, Luca; Magarini, Maurizio; **Alam, Muhammad Mahtab** Physical communication 2020 / art. 101109, <https://doi.org/10.1016/j.phycom.2020.101109> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Task classification for optimal offloading and resource allocation in vehicular edge computing

Mubashir, Memona; Ahmad, Rizwan; Saadat, Ahsan; Chaudhry, Saqib Rasool; Kiani, Adnan Khalid; **Alam, Muhammad Mahtab** 2023 Eighth International Conference on Fog and Mobile Edge Computing (FMEC) 2023 / p. 15-21 <https://doi.org/10.1109/FMEC59375.2023.10306155>

Tight coupling of GNSS and IMU using extended Kalman filtering

Babri, Usman Muhammad; Irfan Haider Jillani, Muhammad; Ahmad, Rizwan; **Alam, Muhammad Mahtab** 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 6 p <https://doi.org/10.1109/BEC61458.2024.10737945> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Towards efficient wireless body area network using two-way relay cooperation

Waheed, Maham; Ahmad, Rizwan; **Alam, Muhammad Mahtab** Sensors 2018 / art. 565, 23 p. : ill <https://doi.org/10.3390/s18020565> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

UAV and SWIPT assisted disaster aware clustering and association

Hassan, Ali; Ahmad, Rizwan; Ahmed, Waqas; Magarini, Maurizio; **Alam, Muhammad Mahtab** IEEE Access 2020 / p. 204791–204803 <https://doi.org/10.1109/ACCESS.2020.3035959> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

UAV trajectory planning for disaster scenarios

Javed, Sadaf; Hassan, Ali; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab**; Rodrigues, Joel J. P. C. Vehicular Communications 2023 / art. 100568, 12 p. : ill <https://doi.org/10.1016/j.vehcom.2022.100568> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A Unique backoff algorithm in IEEE 802.15.6 WBAN

Saboor, Abdul; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab** 2018 IEEE 88th Vehicular Technology Conference (VTC-Fall) :Chicago, IL, USA27 - 30 August 2018 : proceedings 2018 / 5 p. : ill <https://doi.org/10.1109/VTCFall.2018.8690812> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A unique backoff algorithm in IEEE 802.15.6 WBAN

