ABHISHEK PHADKE

Curriculum Vitae

Texas A&M University Corpus Christi
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Links: Website , Google Scholar , LinkedIn

EDUCATION

Ph.D. Candidate, Texas A&M University–Corpus Christi
Geospatial Computer Science, *2019 to present (expected completion 2024)*
System resilience, UAV, Cybersecurity, Blockchain.

M.S. Texas A&M University–Kingsville
Electrical engineering, *2017 to 2019*
Renewable energy generation and transmission, Blockchain development, Multi-agent SoS

B.E. Mumbai University, 2017
Major in Electronics Engineering, Minor in Computer science.

ACADEMIC AND RESEARCH POSITIONS

Research Assistant — Texas A&M University–Corpus Christi *(August 2020 - present)*
Department of Computing Sciences

Adjunct Faculty — Texas A&M University–Corpus Christi *(January 2020–August 2020)*
Department of Computing Sciences
EEEN-3345-001- Electronic devices & Circuits

Research Assistant — Texas A&M University–Corpus Christi *(August 2019- December 2019)*
Department of Computing Sciences

Instructor — Texas A&M University–Kingsville *(May 2019- August 2019)*
Upward Bound Rural, Upward bound Math & Science

Teaching Assistant — Texas A&M University–Kingsville *(August 2018-December 2018)*
Department of Electrical and computer engineering

INDUSTRY EXPERIENCE

Jr Engineer Amber Instruments, Mumbai, India. *(June 2016 to July 2017)*
R&D department

Jr Engineer Om Energy Savers, Mumbai, India. *(June 2015 to May 2016)*
Quality control

JOURNAL ARTICLES

Phadke, A.; Medrano, F.A. Towards Resilient UAV Swarms—A Breakdown of Resiliency Requirements in UAV Swarms. Drones 2022, 6, DOI: https://doi.org/10.3390/drones6110340

CONFERENCE PUBLICATIONS

Phadke, A.; Antonio Medrano, F.; Chu, T. Engineering resiliency in UAV swarms–A bibliographic analysis. In Proceedings of the Journal of Physics: Conference Series, 2022/08/01, 2022; p. 012007. DOI: 10.1088/1742-6596/2330/1/012007

Phadke, A.; Medrano, F.A.; Brahmbhatt, J.; Ustymenko, S. A Framework for an Optimized Smart Energy System. In Proceedings of the 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), 2022; pp. 240-246. DOI: 10.1109/ISEEIE55684.2022.00049

Phadke, A.; Medrano, F.A.; Ustymenko, S. Applications of Blockchain in E-government. In Proceedings of the 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), 2022; pp. 157-164. DOI: 10.1109/ISEEIE55684.2022.00035

Phadke, A.; Medrano, F.A.; Brahmbhatt, J. A conceptual framework for a Blockchain-based Tax payment financial service. In Proceedings of the 2021 International Conference on Computational Science and Computational Intelligence (CSCI), 2021; pp. 1523-1527. DOI: 10.1109/CSCI54926.2021.00296

Phadke, A.; Medrano, F.A.; Ustymenko, S. A Review of Vehicular Micro-Clouds. In Proceedings of the 2021 International Conference on Computational Science and Computational Intelligence (CSCI), 2021; pp. 411-417. DOI: 10.1109/CSCI54926.2021.00139

Phadke, A.; Ustymenko, S. Updating the Taxonomy of Intrusion Detection Systems. In Proceedings of the 2021 IEEE 45th Annual Computers, Software, and Applications Conference (COMPSAC), 2021; pp. 1085-1091. DOI: 10.1109/COMPSAC51774.2021.00148

BOOK CHAPTERS

Phadke A. and S. Ustymenko, "*Examining Security and forensics across Database Management Systems*", 2021 International conference on Security and Management (SAM21), July 26-29,2021, Las Vegas, Nevada. *(Accepted, pending publication)*

EDITORIALS, LETTERS AND SHORT ARTICLES

Phadke, A.; Medrano, F.A. A conceptual Blockchain backed framework for Healthcare Data access – Extended abstract series; 2022. https://doi.org/10.20935/AL4944

Phadke, A.; Medrano, A. A Resilient Multi-UAV System of Systems (SoS); 2771-9359; 2021. https://doi.org/10.20935/AL1659

Phadke, A.; Boyd, J.; Medrano, F.A.; Starek, M. Navigating the skies: examining the FAA's remote identification rule for unmanned aircraft systems. *Drone Systems and Applications* **2023**, *11*, 1-4, http://dx.doi.org/10.1139/dsa-2023-0029

PRESENTATIONS AND INVITED TALKS

Phadke A. F.A. Medrano, S. Ustymenko & T. Chu , "A study *On the Inclusion of Heterogeneous Agents in Unmanned Vehicle Swarms*", The 20th International Conference on Embedded Systems, Cyber-physical Systems, & Applications (ESCS22), July 25-28,2022, Las Vegas, Nevada

Phadke A., F.A. Medrano, Chu,T . "*Engineering resiliency in UAV Swarms- A bibliographic analysis "*, 2022 International Symposium on Intelligent Unmanned Systems and artificial Intelligence (SIUSAI 2022) April 22-24, 2022. *(Virtual)*

Phadke A., F.A. Medrano, J. Brahmbhatt & S. Ustymenko. "*A Framework for an Optimized Smart Energy System",* 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), February 25-27. *(Virtual)*

Phadke, A., F.A. Medrano & S. Ustymenko. "*Applications of Blockchain in E-government*", 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), February 25-27. (Virtual)

Phadke A., F.A. Medrano, J. Brahmbhatt "*A Conceptual Framework for a Blockchain-based Tax payment Financial Service*." 2021 International Conference on Computational Science and Computational Intelligence (CSCI 2021), December 15-17, *(Virtual)*

Phadke A., F.A. Medrano, S. Ustymenko "*A Review of Vehicular Micro Clouds*" 2021 International Conference on Computational Science and Computational Intelligence (CSCI 2021), December 15-17, *(Virtual)*

PROFESSIONAL SERVICES AND REVIEWER ACTIVITIES

Reviewer- **Intelligence and Robotics;** Online ISSN: 2770-3541; DOI: 10.20517/ir

Reviewer- **Eksploatacja i Niezawodność – Maintenance and Reliability;** https://ein.org.pl

Reviewer- **Advances in Networks-Science PG;** http://www.networksjournal.org/reviewers

Reviewer- **Reliability Engineering & System safety;** Online ISSN: 1879-0836

Reviewer- **7th Int'l Conf. on Energy Engineering and Environmental Protection**; http://www.iceeep.org

Vice President- **Geospatial Computer Science Graduate Student Organization;** *September 2021-Present*

Technical advisory chair- **IEEE student branch @TAMUCC**; *September 2020 - July 2021*

AWARDS AND GRANTS

- 3M thesis competition, University level, Texas A&M University, Corpus Christi-People's Choice award, April 2023
- Geo-Spatial Engineering GR Scholarship- Texas A&M University, Corpus Christi, Spring 2022.
- CBI endowment- Texas A&M University, Corpus Christi-Fall 2021.
- Geo-Spatial Engineering GR Scholarship- Texas A&M University, Corpus Christi-August 2021 to May 2022.
- International Impact Scholar - Texas A&M university, Corpus Christi-August 2021 to May 2022.
- Division of Research and Innovation, Texas A&M University, Corpus Christi, Student research Competition award, September 2021.
- 3M thesis competition, University level, Texas A&M University, Corpus Christi-People's Choice award, April 2021.
- Geo-Spatial Engineering GR Scholarship- Texas A&M University, Corpus Christi-Spring 2021.
- CBI endowment- Texas A&M University, Corpus Christi-Spring 2021.
- International Impact Scholar - Texas A&M university, Corpus Christi -August 2020 to May 2021.
- Graduate Student Merit Scholarship - Texas A&M University, Kingsville -August 2017 to July 2018.

CERTIFICATIONS

Certifications in Electric utility fundamentals, Renewable energy, Digital manufacturing, Enterprise system management, Advanced manufacturing process analysis, IoT, and embedded systems.

Complete list: Click here to visit.

RESEARCH INTERESTS

Resiliency: System resiliency, Distributed Cyber Physical and multi-agent systems, **Renewable energy:** Energy generation using renewable energy sources, efficient transmission. **Blockchain :** Applications in E-governance, Smart city, Finance and healthcare.