# ABHISHEK PHADKE

*Curriculum Vitae*

Texas A&M University Corpus Christi
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Corpus Christi, TX 78412

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Links- Personal Website , Google Scholar

## 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*, 340. https://doi.org/10.3390/drones6110340

## CONFERENCE PUBLICATIONS

**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. *(Accepted, pending publication)*

**Phadke, A** & F.A. Medrano. A conceptual Blockchain backed framework for Healthcare Data access – Extended abstract series. Academia Letters, Article 4944. DOI: 10.20935/AL4944

**Phadke, A.**; Medrano, F.A.; Chu, T. Engineering Resiliency in UAV Swarms–A Bibliographic Analysis. *Journal of Physics: Conference Series* **2022**, *2330*. DOI: 10.1088/1742-6596/2330/1/012007

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

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

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

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

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

**Phadke, A.**, & Medrano, F. A. (2021). *A Resilient Multi-UAV System of Systems (SoS)*. Academia Letters. DOI: 10.20935/AL1659

## 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)*

## CONFERENCE 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*". 2021 European conference on Computer Science and Technology. (ECCSIT 2021) December 14. *(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)*

## SERVICE

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

## 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.