ABHISHEK PHADKE

Curriculum Vitae

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

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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

PROFESSIONAL WORK POSITIONS

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://www.mdpi.com/2504-446X/6/11/340#cite

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)*

AWARDS AND GRANTS

- Geo-Spatial Engineering GR Scholarship- Texas A&M University, Corpus Christi, Spring 2022 **$100**
- CBI endowment- Texas A&M University, Corpus Christi-Fall 2021, **$750**
- Geo-Spatial Engineering GR Scholarship- Texas A&M University, Corpus Christi-August 2021 to May 2022, **$300**
- International Impact Scholar - Texas A&M university, Corpus Christi-August 2021 to May 2022, $**1,899**
- Division of Research and Innovation, Texas A&M University, Corpus Christi, Student research Competition award, September 2021, **$775**
- 3M thesis competition, University level, Texas A&M University, Corpus Christi-People's Choice award, April 2021, **$500**
- Spring DT credit-Texas A&M University, Corpus Christi, Spring 2021**, $200**
- Geo-Spatial Engineering GR Scholarship- Texas A&M University, Corpus Christi-Spring 2021, **$500**
- CBI endowment- Texas A&M University, Corpus Christi-Spring 2021, **$120**
- International Impact Scholar - Texas A&M university, Corpus Christi -August 2020 to May 2021, $**1,899**
- Graduate Student Merit Scholarship - Texas A&M University, Kingsville -August 2017 to July 2018, $**10,000**

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.