

Dr. Tejasvi Alladi, *Senior Member, IEEE*

✦ Department of Computer Science and Information Systems, BITS-Pilani

✉ tejasvi.alladi@pilani.bits-pilani.ac.in, talladi@ncsu.edu

Google Scholar: <https://scholar.google.com/citations?user=CIZ-BXYAAAAJ&hl=en>

Profile Page: <https://tejasvi-alladi.github.io/>



Education

Ph.D. Birla Institute of Technology and Science (BITS), Pilani

M.S. (Computer Engineering), *North Carolina State University, USA*

B.E. (Hons) Electrical and Electronics Engineering, BITS-Pilani

Jan. 2018 – Feb. 2021

Aug. 2014 – Dec. 2015

Aug. 2006 – May 2010

Experience

Postdoctoral Researcher, *Carleton University, Canada.*

Jan. 2021 – Dec. 2021

- Working on deep learning-based security solutions for connected vehicles.
- Developing anomaly detection and identification schemes for intra-vehicular networks.

Research Intern, *National University of Singapore, Singapore.*

Jun. 2020 – Jul. 2020

- Developed a deep learning-based anomaly detection scheme for vehicular networks.

Senior Firmware Engineer, *Qualcomm Pvt. Ltd.*, Hyderabad, India.

Apr. 2016 – Mar. 2018

- Worked on 3G and 4G modem firmware code integration and build/compilation systems.
- Coordinated with multiple teams in resolving dependency issues, build generation/code compilation issues, test case failures and in resolving blocking releases to the customers and to the higher-level integration teams.
- Developed Jenkins Automation framework for Continuous Integration and automated nightly build generation.
- Worked on Device/UE build loading, RF card configuration and automated/manual testing on multiple Test equipment.

Senior Software Engineer, *Samsung R&D Institute*, Bengaluru, India.

May 2012 – Mar. 2014

- Developed software techniques for testing DRAM memory.
- Researched and worked on memory management concepts using C in Linux environment, for developing Android based applications to stress test DRAM memory in Samsung Galaxy based devices.

Software Engineer, *Samsung R&D Institute*, Bengaluru, India.

Sep. 2010 – Apr. 2012

- Worked on prototyping next generation microSD and UHS memory cards.
- Designed and developed APIs, and modularized the entire code flow from host to the device for the prototyped version of UHS-II card environment.
- Extensively worked in C programming using MS Visual Studio platform, and using version control tool Clear Case.

Student Intern, Oracle Financial Services Software Pvt. Ltd., Bengaluru, India.

Jul. 2009 – Dec. 2009

- Developed automated scripts for interaction with the backend financial server.

Research Interests: Vehicular Ad-hoc Networks (VANETs) Security, Unmanned Aerial Vehicles (UAVs) Security, Internet of Things Security, Deep Learning, Blockchain

Courses Taught: Digital Design, Microprocessor Programming and Interfacing, Computer Architecture

Skills

Programming Languages: C, C++, Matlab, Python, Perl; **Hardware based Languages:** Verilog, System Verilog

Operating Systems: Linux, Raspbian, RTOS, Windows

Tools: MS Visual Studio, Perforce, Clear Case, Beyond Compare, Jenkins automation, Kiel IDE, Klocwork, JTAG

Publications

1. T. Alladi, Naren, G. Bansal, V. Chamola, and M. Guizani, "SecAuthUAV: A Novel Authentication Scheme for UAV-Ground Station and UAV-UAV Communication", **IEEE Transactions on Vehicular Technology**, vol. 69, no. 12, pp. 15068-15077, Dec. 2020 (**Impact factor: 6**).
2. T. Alladi, S. Chakravarty, V. Chamola, and M. Guizani, "A Lightweight Authentication and Attestation Scheme for In-Transit Vehicles in IoV Scenario", **IEEE Transactions on Vehicular Technology**, vol. 69, no. 12, pp. 14188-14197, Dec. 2020 (**Impact factor: 6**).
3. T. Alladi, B. Gera, A. Agrawal, V. Chamola and F. Richard Yu, "DeepADV: A Deep Neural Network Framework for Anomaly Detection in VANETs", **IEEE Transactions on Vehicular Technology**, vol. 70, no. 11, pp. 12013-12023, Nov. 2021 (**Impact factor: 6**).
4. T. Alladi, V. Chamola and Naren, "HARCI: A Two-Way Authentication Protocol for Three Entity Healthcare IoT Networks", **IEEE Journal on Selected Areas in Communications**, vol. 39, no. 2, pp. 361-369, Feb. 2021 (**Impact factor: 9.144**).
5. T. Alladi, V. Kohli, V. Chamola, F. Richard Yu, and M. Guizani, "Artificial Intelligence (AI)-Empowered Intrusion Detection Architecture for the Internet of Vehicles", **IEEE Wireless Communications Magazine**, vol. 28, no. 3, pp. 144-149, Jun. 2021 (**Impact factor: 12**).
6. H. Grover, T. Alladi, V. Chamola, D. Singh, and K. Choo, "Edge Computing and Deep Learning Enabled Secure Multi-tier Network for Internet of Vehicles", **IEEE Internet of Things Journal**, vol. 8, no. 19, pp. 14787-14796, Oct. 2021 (**Impact factor: 9.5**).
7. T. Alladi, V. Kohli, V. Chamola, and F. Richard Yu, "Securing the Internet of Vehicles: A Deep Learning based Classification Framework", **IEEE Networking Letters**, vol. 3, no. 2, pp. 94-97, Feb. 2021.
8. T. Alladi, V. Chamola, N. Sahu and M. Guizani, "Applications of blockchain in unmanned aerial vehicles: A review", **Vehicular Communications, Elsevier**, vol. 23, no. 100249, pp. 1-24, Feb. 2020 (**Impact factor: 6.91**).
9. T. Alladi, V. Chamola, B. Sikdar and K. Choo, "Consumer IoT: Security Vulnerability Case Studies and Solutions", **IEEE Consumer Electronics Magazine**, vol. 9, no. 2, pp. 17-25, Mar. 2020. (**Impact factor: 3.8**).
10. T. Alladi, V. Chamola, R. Parizi and K. Choo, "Blockchain Applications for Industry 4.0 and Industrial IoT: A Review", **IEEE Access**, vol. 7, pp. 176935-176951, Feb. 2019 (**Impact factor: 3.4**).
11. T. Alladi, V. Chamola, J. Rodrigues and S. Kozlov, "Blockchain in smart grids: A review on different use cases", **MDPI Sensors**, vol. 19, no. 22, pp. 1-25, Nov. 2019 (**Impact factor: 3.6**).
12. T. Alladi, V. Chamola, Naren and N. Kumar, "PARTH: A two-stage lightweight mutual authentication protocol for UAV surveillance networks", **Computer Communications, Elsevier**, vol. 160, pp. 81-90, May 2020. (**Impact factor: 3.167**).
13. T. Alladi, V. Chamola and S. Zeadally, "Industrial Control Systems: Cyberattack trends and countermeasures", **Computer Communications, Elsevier**, vol. 155, pp. 1-8, Mar. 2020 (**Impact factor: 3.167**).
14. T. Alladi, V. Kohli, V. Chamola, F. Richard Yu, "A Deep Learning based Misbehavior Classification Scheme for Intrusion Detection in the Internet of Vehicles", **Digital Communications and Networks, Elsevier (Accepted)** (**Impact factor: 6.8**).
15. K. Agrawal, T. Alladi, V. Chamola, and A. Benslimane, "NovelADS: A Novel Anomaly Detection System for Intra-Vehicular Networks", **IEEE Transactions on Intelligent Transportation Systems** (Under 2nd round of review) (**Impact factor: 6.492**).
16. T. Alladi, N. Sahu, V. Venkatesh, V. Chamola and M. Guizani, "A Comprehensive Survey on the Applications of Blockchain for Securing Vehicular Networks", **IEEE Communications Surveys and Tutorials** (Under 2nd round of review) (**Impact factor: 23.7**).
17. T. Alladi, B. Gera, A. Agrawal, V. Chamola and F. Richard Yu, "Intelligent Internet of Vehicles: Edge-Enabled Intrusion and Anomaly Detection Strategies", **IEEE Internet of Things Magazine** (Under review).
18. T. Alladi, V. Venkatesh, V. Chamola, and N. Chaturvedi, "Drone-MAP: A Novel Authentication Scheme for Drone-Assisted 5G Networks", **Proc. IEEE INFOCOM Workshop 2021**, pp. 1-6, May 2021, DOI: [10.1109/INFOCOMWKSHPS51825.2021.9484594](https://doi.org/10.1109/INFOCOMWKSHPS51825.2021.9484594).
19. T. Alladi, A. Agrawal, B. Gera, V. Chamola, B. Sikdar, and M. Guizani, "Deep Neural Networks for Securing IoT Enabled Vehicular Ad-Hoc Networks", **Proc. IEEE ICC Symposium 2021**, pp. 1-6, Montreal, Canada, Jun. 2021, DOI: [10.1109/ICC42927.2021.9500823](https://doi.org/10.1109/ICC42927.2021.9500823).
20. K. Ranjitha, D. Pathak, P. Tammana, A. Franklin, and T. Alladi, "Accelerating PUF-based UAV Authentication Protocols Using Programmable Switch", **COMSNETS Poster Session 2022 (Accepted)** (**Impact factor: 6.8**).

Awards/Honors

1. **Best paper award** “IEEE Consumer Electronics Magazine”, 2020.
2. **First Prize** in Academic Writing Contest 2020, BITS-Pilani.
3. **In top 10 Most Cited and Downloaded** Articles, Vehicular Communications, Elsevier, 2020.
4. **Reviewer** for the following journals: *IEEE TVT*, *IEEE IoTJ*, *IEEE Systems*, etc.

International Collaborations

1. **Prof. F. Richard Yu**, Carleton University, **Canada**, *IEEE Fellow*
2. **Prof. Kim-Kwang Raymond Choo**, The University of Texas at San Antonio (UTSA), **USA**
3. **Prof. Biplab Sikdar**, National University Singapore, **Singapore**
4. **Prof. Mohsen Guizani**, Qatar University, **Qatar**, *IEEE Fellow*

References

1. [Prof. F. Richard Yu](#), Professor, Carleton University, Canada, *Fellow, IEEE*
2. [Prof. Biplab Sikdar](#), Associate Professor, National University Singapore, Singapore, *Senior Member, IEEE*
3. [Dr. Vinay Chamola](#), Assistant Professor, BITS-Pilani, India, *Senior Member, IEEE*
4. [Prof. Mohsen Guizani](#), Professor, Qatar University, Qatar, *Fellow, IEEE*