Dr. Tejasvi Alladi, ***Senior Member, IEEE***

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

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Education

Ph.D. Birla Institute of Technology and Science (BITS), Pilani, India. Jan. 2018 – Feb. 2021
M.S. (Computer Engineering), ***North Carolina State University, USA***. Aug. 2014 – Dec. 2015
B.E. (Hons) Electrical and Electronics Engineering, BITS-Pilani. Aug. 2006 – May 2010

Experience

Postdoctoral Researcher, ***Carleton University, Canada.*** Jan. 2021 – Present

- 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.
- Wrote an independent compiler/ parser, and the back-end code to interact with the DRAM device file.

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:

VANETs, UAVs, 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: 5.379).***
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: 5.379).***
3. **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: 11.42).***
4. **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,** *Mar. 2021 (Accepted)* ***(Impact factor: 11.391).***
5. 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**, Feb. 2021 (Accepted) ***(Impact factor: 9.936).***
6. **T. Alladi,** V. Kohli, V. Chamola, and F. Richard Yu, "Securing the Internet of Vehicles: A Deep Learning based Classification Framework", **IEEE Networking Letters**, Feb. 2021 *(Early Access)***.**
7. **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: 4.706).***
8. **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: 4.016).***
9. **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: 3.745).***
10. **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: 3.275).***
11. **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: 2.816).***
12. **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: 2.816).***
13. **T. Alladi,** V. Kohli, V. Chamola, F. Richard Yu, and M. Guizani, "A Deep Learning based Misbehavior Classification Scheme for Intrusion Detection in the Internet of Vehicles", **IEEE Transactions on Intelligent Transportation Systems** (Under review) ***(Impact factor: 6.319).***
14. **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**, May 2021 *(Accepted)*.
15. **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**, Montreal, Canada, Jun. 2021 *(Accepted)*.

Awards/Honors

1. ***Best paper award*** "IEEE Consumer Electronics Magazine"- Year 2020.
2. ***First Prize*** in Academic Writing Contest 2020, BITS-Pilani.
3. ***Most Cited*** Vehicular Communications Articles, 2020, Vehicular Communications, Elsevier.
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*