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Ayan Roy-Chowdhury, Ph.D.

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Overview

Ayan Roy-Chowdhury, Ph.D., helps clients protect inventions in electrical and computer engineering, computer science, software, mechanical engineering, and medical devices. Known for his depth of knowledge across a range of technologies, Ayan is the prosecutor clients often turn to for assistance with complex innovations.

Ayan represents clients ranging from individual inventors and start-up organizations to multinational organizations and Fortune 100 companies. In each matter, Ayan tailors his approach to the unique business needs of the client, giving equal attention to each, regardless of size.

In addition to patent prosecution, Ayan has significant experience in post-grant work before the Patent Trial and Appeal Board, as well as opinion and analysis work for clients looking to build their patent portfolios.

Ayan is conversant in a wide range of technologies, including telecommunications and networking, network security and cryptography, blockchain, artificial intelligence/machine learning, autonomous vehicles, mobile device software, semiconductor devices and circuits, cloud computing technologies, and medical appliances, among others. As part of his practice, Ayan helps clients obtain essential patents in cellular and video coding technologies and manage portfolios in jurisdictions around the world.

Ayan received his Ph.D. in electrical and computer engineering from the University of Maryland. Prior to his legal career, he worked first as a telecom software engineer in a large multinational and later as the principal engineer at a satellite networking start-up, experiences that gave him an insider's understanding of the needs and concerns of organizations of diverse sizes in high-technology industries. Throughout his career, Ayan has authored technical publications, reviewed articles for several electrical and computer engineering journals, and served on the program committees of international technical conferences related to electrical and computer engineering and satellite technologies. He is also the inventor of two U.S. patents, one in network security and the other in cryptographic hash chains — technology related to the modern blockchain.

Ayan frequently serves as a mentor to professionals looking to establish themselves in the legal industry and speaks on panels discussing intellectual property law. In his free time, Ayan enjoys classical music, gardening, advocating for animals and the environment, and tinkering with gadgets.

Recognitions & awards

Ones to Watch

Best Lawyers 2022-2023

Capital Pro Bono Honor Roll

District of Columbia Courts 2022

Patents

U.S. 8,397,062, Method and System for Source Authentication in Group Communications.

U.S. 8,671,273, Method for Performance-aware Security of Unicast Communications in Hybrid Satellite Networks.

Professional associations

American Intellectual Property Law Association (AIPLA)
Sigma Xi – the Scientific Research Society
Institute for Electrical and Electronics Engineers (IEEE)
Golden Key International Honor Society
Formerly technical program committee member for several international conferences
Formerly reviewer for multiple technical journals and conferences

News

Media Coverage | January 1, 2025
Principal Ayan Roy-Chowdhury on 2025 Patent Policy Predictions

Law360

News | July 31, 2023
Twenty-Eight Fish & Richardson Attorneys Recognized by D.C. Courts in the 2022 Capital Pro Bono Honor Roll

News | January 5, 2022
Fish & Richardson Elevates 17 Attorneys to Principal

Events

August 9, 2024
Lavender Law Conference & Career Fair 2024

January 10, 2024
World Intellectual Property Forum 2024

March 20, 2014
Startup Grind: Ted Leonsis

Additional insights

Publications

- "Energy-efficient Source Authentication for Secure Group Communication with Low-Powered Smart Devices in Hybrid Wireless/Satellite Networks," *EURASIP Journal on Wireless Communications and Networking – Special Issue on Security and Resilience for Smart Devices and Application* (December 2010)
- "VSAT Return Channel Optimizations for Broadband Internet Support in 2-Way Satellite Networks," *16th Ka and Broadband Communications Navigation and Earth Observation Conference*, Pg. 479-486, Milan, Italy (October 2010)

- "Performance-aware Security of Unicast Communication in Hybrid Satellite Networks," *IEEE International Conference on Communications* 2009 (ICC 2009), Dresden, Germany (June 2009)
- "A Lightweight Certificate-based Source Authentication Protocol for Group Communication in Hybrid Wireless/Satellite Networks," *Proc. IEEE Global Communications Conference (Globecom)* 2008, New Orleans, Louisiana (December 2008)
- "Security Issues in Hybrid Networks with a Satellite Component," *IEEE Wireless Communications* (December 2005)

Services

Litigation
Patent Litigation
Post-Grant
Patent
Patent Prosecution

Industries

Electrical & Computer Technology
Semiconductors
Digital Media & E-Commerce
Financial, Business & FinTech Services
Telecommunications
Cleantech
Medical Devices
Academic Research & Medical Centers
Transportation, Aerospace & Defense

Admissions

U.S. Patent and Trademark Office
District of Columbia

Languages

Hindi
Bengali
English

Education

J.D. *cum laude*, Georgetown University Law Center
Ph.D., Electrical and Computer Engineering, University of Maryland
M.S., Electrical and Computer Engineering, University of Maryland
B.S., Electronics and Telecommunications Engineering, Jadavpur University

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