



**Dr. Anand Nayyar**

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Dr. Anand Nayyar received Ph.D (Computer Science) from Desh Bhagat University in 2017 in the area of Wireless Sensor Networks, Swarm Intelligence and Network Simulation. He is currently working in School of Computer Science-Duy Tan University, Da Nang, Vietnam as Professor, Scientist, Vice-Chairman (Research) and Director- IoT and Intelligent Systems Lab. A Certified Professional with 125+ Professional certifications from CISCO, Microsoft, Amazon, EC-Council, Oracle, Google, Beingcert, EXIN, GAQM, Cyberoam and many more. Published more than 200+ Research Papers in various High-Quality ISI-SCI/SCIE/SSCI Impact Factor- Q1, Q2, Q3, Q4 Journals cum Scopus/ESCI indexed Journals, 80+ Papers in International Conferences indexed with Springer, IEEE and ACM Digital Library, 50+ Book Chapters in various SCOPUS/WEB OF SCIENCE Indexed Books with Springer, CRC Press, Wiley, IET, Elsevier with Citations: (Google Scholar): 14500+, H-Index: 64 and I-Index: 230; (Scopus): 7600+; H-index: 47. Member of more than 60+ Associations as Senior and Life Member like: IEEE (Senior Member) and ACM (Senior Member). He has authored/co-authored cum Edited 60+ Books of Computer Science. Associated with more than 600+ International Conferences as Programme Committee/Chair/Advisory Board/Review Board member. He has 18 Australian Patents, 15 German Patents, 4 Japanese Patents, 40 Indian Design cum Utility Patents, 13 UK Patents, 1 USA Patent, 3 Indian Copyrights and 2 Canadian Copyrights to his credit in the area of Wireless Communications, Artificial Intelligence, Cloud Computing, IoT, Healthcare, Drones, Robotics and Image Processing. Awarded 48 Awards for Teaching and Research—Young Scientist, Best Scientist, Best Senior Scientist, Asia Top 50 Academicians and Researchers, Young Researcher Award, Outstanding Researcher Award, Excellence in Teaching, Best Senior Scientist Award, DTU Best Professor and Researcher Award- 2019, 2020-2021, 2022, 2022-2023 Distinguished Scientist Award by National University of Singapore, Obada Prize 2023, Lifetime Achievement Award 2023; Asian Admirable Achievers 2024; Distinguished Academic Leader 2024 and many more. He is listed in Top 2% Scientists as per Stanford University (2020, 2021, 2022) , Ad Index (Rank No:1 Duy Tan University, Rank No:1 Computer Science in Viet Nam) and Listed on Research.com (Top Scientist of Computer Science in Viet Nam- National Ranking: 2; D-Index: 42; World Ranking: 6968).

He is acting as Associate Editor for Wireless Networks (Springer), Computer Communications (Elsevier), International Journal of Sensor Networks (IJSNET) (Inderscience), Computers Materials and Continua (CMC), Tech Science Press- IASC, Cogent Engineering, Human Centric Computing and Information Sciences (HCIS), PeerJ

Computer Science, IET-Quantum Communications, IET Networks, IEEE Transactions on Artificial Intelligence (IEEE TAI), Indonesian Journal of Electrical Engineering and Computer Science, IJFC, IJISP, IJDST, IJCINI, IJGC, IJSIR, IJBDCN, IJNR, IJSI. He is acting as Managing Editor of IGI-Global Journal, USA titled “International Journal of Knowledge and Systems Science (IJKSS)” and Editor-in-Chief of IGI-Global, USA Journal titled “International Journal of Smart Vehicles and Smart Transportation (IJSVST)”. He has reviewed more than 5100+ Articles for diverse Web of Science and Scopus Indexed Journals. He is currently researching in the area of Wireless Sensor Networks, Internet of Things, Swarm Intelligence, Cloud Computing, Artificial Intelligence, Drones, Blockchain, Cyber Security, Healthcare Informatics, Big Data and Wireless Communications.

**Title:** Extended Reality Technology

**Abstract:**

The advent of Extended Reality (XR) technologies marks a transformative era in human-computer interaction, encompassing Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR). This lecture delves into the dynamic field of XR, exploring its foundational principles, technological advancements, and diverse applications across various sectors. XR technologies blur the lines between the physical and digital worlds, offering immersive experiences that enhance perception and interaction. The lecture will provide a comprehensive overview of the current state of XR, highlighting key developments in hardware and software that drive innovation. We will examine the role of XR in industries such as healthcare, education, entertainment, and manufacturing, showcasing real-world applications that demonstrate its potential to revolutionize traditional practices. Additionally, we will address the challenges faced in XR development, including technical limitations, ethical considerations, and the need for robust content creation tools. By understanding the capabilities and limitations of XR, attendees will gain insights into future trends and opportunities for research and development in this rapidly evolving field. This lecture aims to inspire and equip participants with the knowledge to harness XR technologies, fostering creativity and innovation in their respective domains.