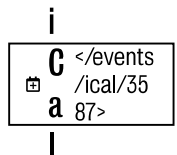


DLS: I.F. Akyildiz — NETWORKING 2030: Metaverse, Extended Reality, Hologram Type and Mulsemedia Communication Challenges for 6G/Beyond Wireless Systems

THURSDAY, OCTOBER 17, 2024 10:30 AM - 12:00 PM EDT (GMT -04:00)



Please note: This distinguished lecture will take place in DC 1304 and online.

I.F. Akyildiz, Professor, Telecommunications
President & CTO, Truva Inc.

The term “METAVERSE” (META=BEYOND) and (VERSE=UNIVERSE) can be regarded as the evolution of the Internet where there will be almost no separation between digital and physical. This will be made possible thanks to the convergence of key emerging technologies such as Extended Reality (XR) (the umbrella term for Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR)), Mulsemedia as well as Hologram Type Communication (HTC).

In this talk, the XR, Mulsemedia, HTC technologies are explored and according research challenges concerning wireless communications for the next decade are presented. XR, Mulsemedia and HTC provide truly immersive experiences for a plethora of use cases for the Networking 2030 and Beyond. They face great challenges in transmitting high volume data with high throughput and guaranteed end-to-end latency which cannot be addressed by existing/current communication technologies.



In this talk, a roadmap towards wireless ultimate XR, Mulsemedia and HTC technologies is presented. The basics, existing products and use cases of these technologies are reviewed. Upon which technical requirements and bottlenecks of realizing these technologies within wireless communication systems are identified.

Biography: I.F. Akyildiz <<https://ianakyildiz.com/>> (Life Fellow, IEEE) received the B.S., M.S., and Ph.D. degrees in Electrical and Computer Engineering from the University of Erlangen–Nürnberg, Germany, in 1978, 1981, and 1984, respectively. He served as the Ken Byers Chair Professor in Telecommunications, the Past Chair of the Telecom Group at the ECE, and the Director of the Broadband Wireless Networking Laboratory, Georgia Institute of Technology, from 1985 to 2020. He is the Founder and President of the Truva Inc., a consulting company, since 1989. He is also an Advisory Board member at the Technology Innovation Institute (TII) Abu Dhabi, United Arab Emirates, since June 2020. He is the Founder and the Editor-in-Chief of the newly established of *International Telecommunication Union Journal on Future and Evolving Technologies* (ITU J-FET) since August 2020.

He had many international affiliations during his career and established research centers in Spain, South Africa, Finland, Saudi Arabia, Russia and India. Dr. Akyildiz is an IEEE Fellow since 1996, and ACM Fellow since 1997. He received numerous awards from IEEE, ACM, and other professional organizations, including Humboldt Award from Germany and Tubitak Award from Turkey.

In September '24, according to Google Scholar, his h-index is 140 and the total number of citations to his articles is more than 145+K. His current research interests include Networking 2030, Metaverse, Mulsemedia Communication, Hologram and Extended Reality Communication, 6G/7G wireless systems, TeraHertz Communication, Underwater Communication.

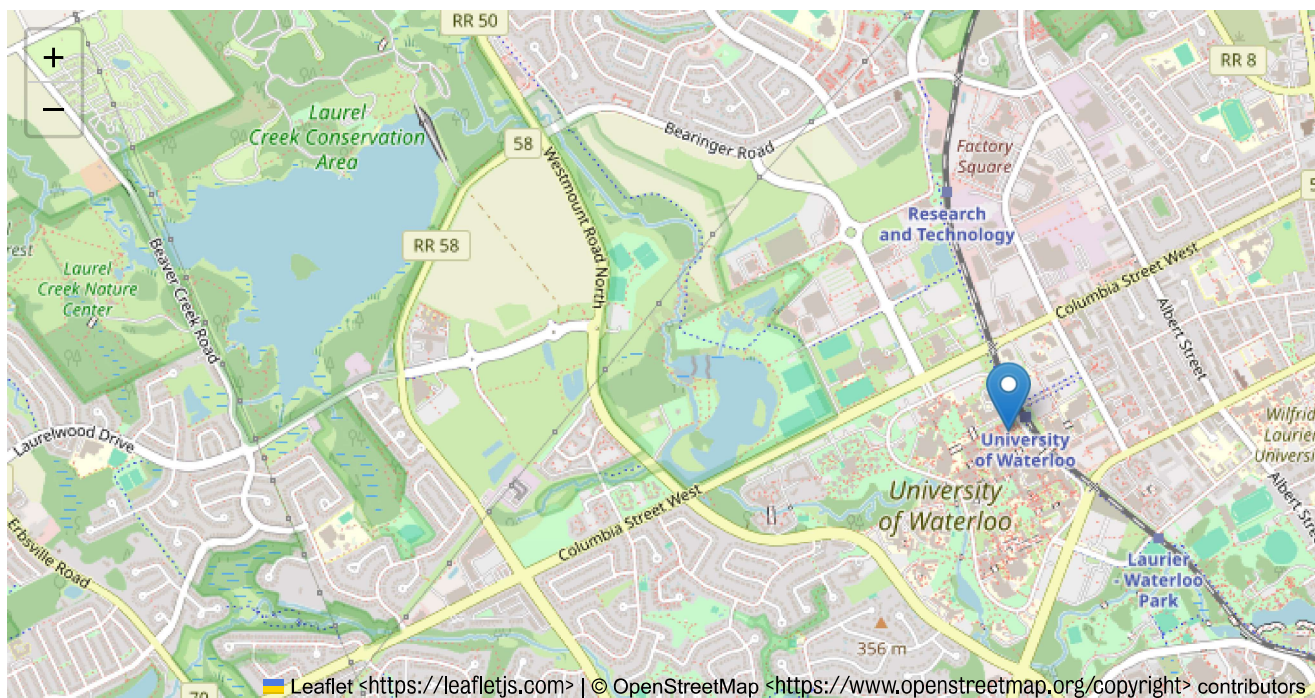
To attend this distinguished lecture in person, please go to DC 1304. You can also attend virtually using Zoom <<https://uwaterloo.zoom.us/j/98643081593>>.

Location Information

Location Address:

DC - William G. Davis Computer Research Centre
200 University Avenue West
Hybrid: DC 1304 | Online distinguished lecture
Waterloo, ON, CA N2L 3G1

Location coordinates:



WebNotice, Current students, Current undergraduate students, Current graduate students, Faculty, Staff, Lecture



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