STAKEHOLDER ENGAGEMENT

Our diverse portfolio of work is possible thanks to an extensive collaboration network in the form of key partnerships within NIST and across industry, government, and academia.

Through the 5G mmWave Channel Model Alliance we work with over 75 organizations that are interested in the development and dissemination of wireless propagation and measurement data to fully characterize the millimeter wave frequency bands.

In addition we work with several standard developing organizations such as 3GPP, IEEE 802 and the Wireless Innovation Forum Spectrum Sharing Committee to develop voluntary standard specifications for next generation wireless communication technology.

IMPACT

Provide Industry and the research community with the best in measurement and modeling methods:

- Measurements and models to characterize wireless propagation: 5gmm.nist.gov
- Reference implementations: www.nist.gov/ctl/wireless-networks
- Contributions to documentary standards: IEEE 802, 3GPP, Winnforum Spectrum Sharing Committee
- Articles published in professional journals and conference proceedings.

CTL
Communications
Technology Laboratory

5G Millimeter-Wave
Channel Model Alliance

NIST
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NIST's mission is to promote U.S. innovation by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.

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www.nist.gov

WIRELESS NETWORKS DIVISION

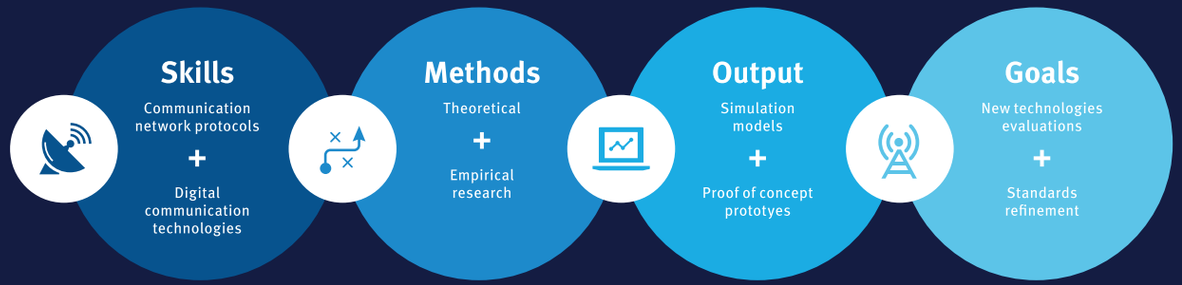
NIST

WIRELESS NETWORKS DIVISION

The Wireless Networks Division works with the networking industry to research, develop, promote, measure, and deploy emerging networking technologies and standards that revolutionize how networks are operated and used.

OUR APPROACH

To solving wireless communications problems:



Our team, based at NIST's main campus in Gaithersburg, Maryland, specializes in communications networks and protocols as well as digital communications technologies.

In both of these areas, we perform both theoretical and empirical research to develop simulation models, experimental testbeds, and proof-of-concept prototypes that we use to evaluate new technologies and to refine existing standard specifications for wireless networks and systems. In addition, we define metrics and measurement methods to assess the performance of many types of wireless systems.

RESEARCH AREAS

Our work impacts all of CTL's core programs including Public Safety Communications, Spectrum Sharing, and 5G & Beyond. We also co-lead the 5G mmWave Channel Model Alliance, a nexus for global efforts to develop the future radio channels over which next-generation 5G wireless networks will operate at data rates up to a thousand times greater than what is possible today.

NIST