The Bell Labs Prize 2019

There are only a few ideas that will define the next phase of human experience

If you think your idea is one of them, then the Bell Labs Prize is for you.

$100K
1st prize

$50K
2nd prize

$25K
3rd prize

We are on the verge of the 4th industrial revolution – a revolution that will transform human experience in all aspects of life. Our physical, physiological and psychological/cognitive existence will be transformed by a massive array of sensory technologies connected to augmented intelligent systems over a 'life and mission critical' digital network fabric.

Who will create the new technologies that define this future? Why not you, in collaboration with Nokia Bell Labs?

Nokia Bell Labs is the world-renowned industrial research arm of Nokia. Over its 90+ year history, Bell Labs has invented the foundational technologies that underpin information and communications networks and all associated digital devices and systems. This research has resulted in nine Nobel Prizes, Turing Awards, Japan Prizes, a plethora of National Medals of Science and Engineering, as well as an Oscar, two Grammys and an Emmy award for technical innovation. Nokia Bell Labs is as focused as ever on inventing the future by conducting disruptive research on the challenges of the new digital era.

Are you ready to invent the future?
We are looking for humanity-changing ideas that have the potential to revolutionize how we live and work in the new digital age.

If you you are interested in developing your idea with leading Bell Labs researchers in an environment with an unparalleled history and spirit of innovation, you have come to the right place.

Earn the recognition your ideas deserve.

NOKIA Bell Labs

The Bell Labs Prize 2019

Will you be next?

The **2018** Bell Labs Prize was awarded to **Samory Kpotufe, former Assistant Professor at Princeton, and now at Columbia University**, for his pioneering work on the critically important field of 'transfer learning' in machine learning that answers the question of how and when can learning from one machine learning tool, be applied to another.

The **2017** Bell Labs Prize was awarded to **Kaushik Sengupta, Assistant Professor in Electrical Engineering at Princeton University**, for his invention of a radical new transceiver chip technology that could power a truly universal software-defined reconfigurable radio, improving today's wireless communications and opening the door for new applications currently unapproachable because of their size or cost requirements.

The **2016** Bell Labs Prize was awarded to **Sungwon Chung, Hossein Hashemi, and Hooman Abediasl from the University of Southern California** for their work on "Large-Scale Plasmonic Optical Phased Array – an architectural innovation for nanodevices".

In **2015** we awarded the $100,000 prize to **Brandon Lucia, assistant professor at Carnegie Mellon University** for his work on "OIC: The Operating System for Intermittent Computing" which introduces a new class of intelligent computer systems that use novel hardware and software techniques to operate reliably using intermittent or unreliable power.

We awarded the **2014** prize to **Emmanuel Abbe, assistant professor at Princeton University**, for his work on the Shannon Theory of Social Networks and beyond.

Many of the Prize candidates have engaged with collaborations with Bell Labs researchers to further their research in new directions.

2015

2017

2018

Register and enter your idea in 250 words or less. If your idea is among the top 50 submissions, we will invite you to work with one of our researchers to turn your idea into a detailed, professional proposal.

Selected finalists will receive an all expenses paid trip to present their final proposals.

Three prize winners will receive an award of $100,000 (grand prize), $50,000 (second place) or $25,000 (third place). Additionally, through the process, Bell Labs may engage with other contest participants as part of our investment in and engagement with the best and brightest minds.

We are seeking world-shifting proposals in any field of science, technology, engineering, and mathematics – proposals that have the potential to disrupt or profoundly change the state of human knowledge or endeavor. Our particular interest is in innovations in any domain described in 'The Future X Network: A Bell Labs Perspective'.

The competition is open to anyone in one of the participating countries, who owns their idea and meets the eligibility requirements. The deadline to enter the contest is April 26, 2019. For more information, visit the Bell Labs Prize web site.

Please share this with your most innovative and uniquely talented students and academic colleagues so that they may become enablers of the next technological revolution with us.

How can you create a winning proposal?
You need to submit a proposal that stands out from others in 3 dimensions:

- **10x Innovation Potential**
  How is your proposal novel? What has not been done before? What is the disruptive thinking that could result in a 10x change in performance (e.g. speed, capacity, through-put, distance, latency, cost, energy efficiency or simplicity)?

- **Technical Merit**
  How technically sound is your proposal? On what current principles and capabilities does it depend? Would it require future advancements and innovations to succeed?

- **Feasibility**
  Can a proof of concept, simulation or demonstration be built in the course of the competition? What is required to do so? In order to build a commercially viable (revenue and profit-generating) solution, what more would be required?

How will human and machine communications, collaboration, control, contextual search and knowledge creation change in ten years? If you think you have the answer, let us know, and maybe you will get the chance to join the scores of researchers that have been recognized with Nobel prizes, Japan prizes, US National Medals of Science, Turing awards, and more.

The competition submission deadline is **April 26, 2019!**
To apply, visit the Bell Labs website at **www.bell-labs.com/prize**

NOKIA Bell Labs