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The Wireless World

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Many of us just turn on our cell phones to find out where we are or what we are doing next. The information gets to us through radio waves, much like it did a century ago in maritime navigation that could have saved the Titanic had someone been listening. Wireless communications, sensing and powering deeply penetrate our lives. This talk will attempt to answer the questions of where we are now in terms of wireless technology and its applications, how we got there, what are the current challenges, how engineers are solving them. The effects of wireless on the economy are impressive, for example in recent years, wireless communications accounts for 2% of energy usage in the world, which is equivalent to the aviation industry. At the University of Colorado, Boulder, our research solves challenges such as how to send more data while using less power, how radio waves can help in medicine, how to make smaller more functional radar and how to cook smartly.

Zoya Popovic is a Distinguished Professor and the Lockheed Martin Endowed Chair of Electrical Engineering at the University of Colorado, Boulder, U.S.A. She obtained her Dipl.Ing. degree at the University of Belgrade, Serbia, and her Ph.D. at Caltech. She has graduated 60 PhDs and currently advises 14 doctoral students in various areas of high-frequency electronics and microwave engineering. She is a Fellow of the IEEE and the recipient of two IEEE MTT Microwave Prizes for best journal papers, the White House NSF Presidential Faculty Fellow award, the URSI Issac Koga Gold Medal, the ASEE/HP Terman Medal and the German Humboldt Research Award. She was named IEEE MTT Distinguished Educator in 2013. She has a husband physicist and three daughters who can all solder.

