

Sunlight for wireless communication

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Abstract

We, humans, already use 50% more energy moving information than moving airplanes around the world. Communication is central to our societies but it is taking a toll on the earth.

We want to use a free, abundant and natural resource for wireless communication: sunlight. Similar to the way you can use a mirror to communicate by reflecting light, our aim is to change the surfaces of objects to control their reflection properties to send information, but without you noticing any flicker!

In this manner, buildings, cars and other objects in our cities will be able to talk to each other using daylight, an eco-friendly solution. In this talk, I will present some of our recent work on this exciting area and its potential applications for smart cities.

A world that communicates through natural light. That's the goal.

Keywords

Sunlight, energy, communication, smart cities

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