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The Internet of Materials:
The next logical step or a paradigm shift?

📅 Tuesday, October 5, 2021

🕐 10:45 AM – 12:00 PM

▥ https://wse.zoom.us/j/97320685420
Meeting ID: 973 2068 5420

ABSTRACT

Revisiting Weiser's 30-year old inspirational vision on ubiquitous computing, we see that there are three factors that today limit the kind of ubiquity that Weiser described: power, cost, and form factor. Using these factors to drive our efforts, we have created examples of computational materials that demonstrate self-sustaining computational devices that are manufactured with simple materials to perform interesting sensing and communication tasks. These computational materials can be more literally woven into the fabric of everyday life, inspiring many more applications of ubiquitous computing, as well as many avenues for research challenges. We will demonstrate some of these early examples, motivating an Internet of Materials vision. Is this a logical progression from the Internet of Things, or something fundamentally new? Abowd will present examples of computational materials that have been created in collaboration with materials scientists, chemical engineers, and other disciplines. He will also discuss some of the exciting research challenges for this emerging field.

BIOGRAPHY

Gregory Abowd is Dean of the College of Engineering and Professor of Electrical and Computer Engineering at Northeastern University. Prior to joining Northeastern, he spent over 26 years on the faculty at Georgia Tech, where held the position of Regents' Professor and the J.Z. Liang Chair in the School of Interactive Computing. His research falls largely in the area of Human-Computer Interaction with an emphasis on applications and technology development for mobile and ubiquitous computing in everyday settings. He has over 300 peer-reviewed publications and holds several issued patents, assisting in the formation of 6 commercialization efforts. He has graduated 30 PhD students who have gone on to faculty and industry. He is an elected member of the ACM SIGCHI CHI Academy and an ACM Fellow.

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