Wearable Platforms for Sweat Sensing at Rest

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Abstract: Sweating is typically associated with exercise, elevated temperatures, or chemical stimulation. However, we also sweat during routine and sedentary activities for thermoregulation, as the body finely controls core temperature. This kind of sweat is secreted at dramatically lower rates and volumes, making it difficult to collect and analyze in wearable platforms. In this talk I'll review our recent efforts to enable sweat analysis at rest, using functionalized glove-based platforms and microfluidic patches. I'll discuss device aspects as well as preliminary subject studies that use these platforms for non-invasive physiological insights.

Bio: Mallika Bariya is a Ph.D. candidate and NSF Graduate Research Fellow in Prof. Ali Javey's group. Her research is focused on electrochemical sensing technologies for healthcare applications, with particular emphasis on developing and using sweat sensors to understand how non-invasive parameters can reflect deeper physiology.