

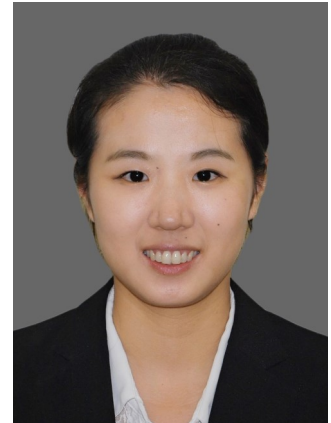


**Topic of the Speech:**

Wearable Triboelectric Nanogenerator for Human Motion Sensing and Energy Harvesting

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She obtained her Master's degree from Soochow University majored in Textile Materials and Design in 2010. After that, she received her Ph.D. from Shinshu University in 2014. From 2014 to 2015, she worked as a R&D in a Japanese company and returned to Shinshu University as a faculty member in 2015.

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## **Wearable Triboelectric Nanogenerator for Human Motion Sensing and Energy Harvesting**

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### **ABSTRACT (NO MORE THAN 500 WORDS:)**

Recently, flexible electronics with excellent electrical activity and deformability has attracted extensive interest and these electronics have potential for application in various area, such as health monitoring, human-machine interactions, motion sensing, et al. Herein, some kinds of polymer-based fibrous materials used for human motion sensing were discussed. The wearable strain sensor can be utilized to monitor delicate and vigorous human motions. Moreover, it can also act as a deformable triboelectric nanogenerator for harvesting mechanical energy. The deformable triboelectric nanogenerator shows a peak output voltage and current of 141V and 0.8 $\mu$ A, and it can light more than 52 led lights simultaneously, demonstrating its capability to power small electronics, such as hygrometer thermometer. This study provides a potential approach for the development of deformable energy sources and self-powered strain sensors.