

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
Faculty of Engineering
Website: <https://www.eng.nus.edu.sg/ece/>

Area: Integrated Circuits & Embedded Systems

Host: Assoc Prof Jerald Yoo

TOPIC	:	Low Power Temperature Sensing Systems
SPEAKER	:	Ms Joanne Tan Si Ying Graduate student, ECE Dept, NUS
DATE	:	11 October 2019, Friday
TIME	:	10am to 11am
VENUE	:	E3-06-01, Engineering Block E3, Faculty of Engineering, NUS
ABSTRACT		
Temperature is one of the most coveted environmental quantity. Temperature sensors have wide applications including automotive, cold supply chain, and healthcare. Temperature measurement and control are critical in these applications. Rise of Internet of Things has seen the integration of temperature sensors in a wide range of devices. These numerous and widely distributed sensor nodes require sustainable and maintenance-free capabilities. To effectively power the devices, energy harvesting is essential to enable energy autonomous systems as batteries are unable to provide sustainable sources of power. Current efficiency limitations of energy harvesters require wireless sensor nodes to operate at extremely low power and low voltages. Various challenges exist in designing temperature sensors to achieve low power consumption and low operating supply voltage range while maintaining good accuracy, resolution, conversion time, operating temperature range and power supply rejection ratio. Some of these challenges and novel design methodologies will be discussed.		
BIOGRAPHY		
Joanne Tan received the B.Eng. degree in electrical engineering from the National University of Singapore (NUS), Singapore, in 2018. She is currently a MEng student with the Department of Electrical and Computer Engineering, NUS. Her current research interest focuses on low power temperature sensing systems.		

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