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## 강연제목: 신생아에서의 악력 및 흡입력 측정 (Measurement of grasping and sucking power of infants)

### Abstract:

Preterm infants are prone to have higher risks of morbidity, disability and developmental delay compared to term infants. The primitive reflexes such as grasping and sucking reflexes are a good indicator to assess the integrity of the central nervous system of infants. Conventionally, pediatricians evaluate the grasping and sucking power qualitatively based on their experiences by using fingers. Thus, more quantitative means to assess the grasping and sucking power of infants are necessary to support healthcare professionals. We developed flexible sensors to measure the grasping power and the non-nutritive sucking power of neonates. The developed sensors were characterized, optimized, and evaluated in clinical settings, suggesting their potential usage in evaluation of the feeding readiness of clinically complicated neonates to shorten their hospital stay.

### Brief Biosketch

Dr. Sohee Kim is a professor in the department of robotics and mechatronics engineering at Daegu Gyeongbuk Institute of Science and Technology (DGIST) since 2015. Before joining DGIST, she was a professor at Gwangju Institute of Science and Technology (GIST) since 2009. She obtained B.S. and M.S. degrees in mechanical engineering from KAIST, and Ph.D. degree in mechatronics from Saarland University in Germany. She was a post-doc. researcher in the department of electrical and computer engineering at the University of Utah. Her research interests include neural interfacing microdevices to detect electrophysiological signals and stimulate neurons in the brain, the retina, and peripheral nerves, as well as polymer-based soft MEMS and flexible/wearable devices for biomedical applications