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**국문 강연제목: 글로벌 휴머노이드로봇산업 및 기술 동향과 전망**

**영문 강연제목: Global Humanoid Robot Industry and  
Technology Trends and Outlook**

**Abstract(영문):**

The commercialization race for humanoid robots — human-like robots — which was triggered when Tesla began developing its “Optimus Bot,” is rapidly accelerating worldwide against the backdrop of advances in artificial intelligence technology. This article examines the development trends and current status of humanoid robots and introduces technologies related to human motion and biomimicry that actively utilize AI. Based on State-Of-The-Art (SOTA) core technologies, it explores the trends of companies developing humanoid robots using foundation models. It also introduces robot learning through behavior cloning, data augmentation techniques based on robot foundation models, and discusses implications from a biomedical engineering perspective.

**Brief Biosketch (간단한 이력, 연구/대외활동 소개,국문/영문)**

한국로봇산업진흥원 창립 멤버로 지난 16 년 간, 로봇산업 및 기술정책, 로봇안전 표준인증 등 업무를 수행하며 한국의 로봇산업 발전에 기여하여 왔다. 한국 AI 윤리학회, 한국로봇학회, 한국재활로봇학회 이사로 활동하고 있고, 송실대학교 안전융합대학원에서 로봇안전 분야 겸임교수로도 재직 중이다.

As a founding member of the Korea Institute for Robot Industry Advancement, he has contributed to the development of Korea’s robotics industry over the past 16 years by working on robotics industry and technology policy, as well as robot safety standards and certification. He currently serves as a board member of the Korean Society for AI Ethics, the Korean Robotics Society, and the Korean Society for Rehabilitation Robotics. He is also an adjunct professor in the field of robot safety at the Graduate School of Safety Convergence at Soongsil University.