

2025학년도 겨울방학 비교과 프로그램 모집 공고

교육과정 정보

프로그램명	모션캡처를 활용한 Passive Walker 제작 및 실습
모집 대상	바이오-로봇시스템공학과 3~4학년 재학생
모집 인원	6명 / 3인1팀 (초과 시 별도 면접 진행)
운영 기간	겨울방학 중 (2025. 01. 03. ~ 2025. 02. 21.)
담당 교수	바이오-로봇시스템공학과 박기원, 박상인, 김우용

주요 교육 내용

☐ Introductions

- **Walking mechanisms** are fundamental in robotics, especially for applications involving mobility, stability, and energy efficiency.
- A **passive walker** is a type of robot that walks down a slight slope **without any motors, actuators, or active control mechanisms**, relying solely on gravity, mechanical design, and natural dynamics to move.
- Connecting the passive walker to the human walking mechanism can deepen **students' understanding of bio-mechanics and robotics design principles**.

☐ Outcomes

- Understanding of Bio-mechanics and robot systems
- Hands-on-skills in making and testing physical prototypes
- Capability in building simulator and analyzing the results

☐ Schedules and Contents

- Note that this schedule is subject to change.
- Any updates will be communicated after the opening.

날짜	시간	내용
2025.01.03. (Fri.)	10:00~13:00	Introduction to passive walk
2025.01.10. (Fri.)	10:00~13:00	Measuring personal body sizes using motion capture system
2025.01.15. (Wed.)	13:00~16:00	Design passive walker using 3D CAD program
2025.01.17. (Fri.)	10:00~13:00	Building simulator for passive walking mechanism
2025.02.07. (Fri.)	10:00~13:00	Making components using 3D printer
2025.02.12. (Wed.)	13:00~16:00	Making passive walker prototype 1
2025.02.14. (Fri.)	10:00~13:00	Making passive walker prototype 2
2025.02.19. (Wed.)	13:00~16:00	Testing passive walker through slope walking
2025.02.21. (Fri.)	10:00~13:00	Demonstrate and evaluation

신청방법 및 문의

신청방법	12월 31일 까지 김우용 교수 개인 메일(wooyongkim@inu.ac.kr)로 신청
문의	프로그램 담당교수: 바이오-로봇시스템공학과 김우용 (032-835-8688)