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Paper

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Freshmen Design Course for Large-sized Class in KNU

Creative Engineering Design(CED) course for 300 freshmen students was launched in Spring semester 1999 in the School of Electronic and Electrical Engineering, Kyungpook National University(SEEK). CED course is operated as 2 credits and 3 hours a week, one semester long and required for the every 600 freshmen of SEEK. Every semester, SEEK opens 8 CED classes and 4-5 full time faculty members take charge of the courses. One TA student is assigned each class. 20 2-student teams in a class design their own wired robot which is externally fed electricity and pressured air. Each team can use up to 3 dc motors and 2 air cylinders which should be recollected and then reused. Other consumable commodities like limited amount of MDF panel, PVC pipe, bolts and nuts, and etc. are also supplied. Mission of the robot is usually changed every semester. This semester's mission was "Supply Drug and Food to Afgan Camp" which was the one of hot international issues. Tournament contest is usually provided at the end of each semester and is relayed via internet. The laboratory uses the space of 4 rooms, 312 squared meters including workshop, warehouse and office. Initial investment for building up the laboratory except the space was 105 million-Won(about US\$80,000 equivalent) total including tools, furnishings, and reusable parts. About 10 million-Won(about US\$7,700 equivalent) is needed annually for operating the laboratory, it means that one team consumes only 33 thousand-Won(about US\$25 equivalent) a semester. Survey results shows CED course is satisfactorily accepted to the SEEK students.