<u>수 업 계 획 서</u>

개설학년도		개설학기	1 학기
학수번호		교과목명	최적화 기법
이수구분	전공	담당교강사	유관호

소키제기위비	コットカラギ	ìн					i			
수상대상악무	정보통신공학부									
교재명	"An Introduction to Optimization" written by E.K. Chong and S.H. Zak, Wiley, Inter- Science.									
수업목표 및 진행방법	This class covers dynamic programming, relating it to the calculus of variations and optimal problems, and neighboring(related) optimum problems (differential dynamic programming), a practical method for nonlinear feedbackcontrol. This class is aimed for engineering optimization and structural optimization, as well as mathematical programming/nonlinear programming solutions. Through this class, we focus on the concepts of practical optimization techniques.									
계획1	1st week: Introduction to optimization - Meaning of optimization - Types of problems 2~3rd week: Linear programming - Basic properties of linear programs - Basic solutions - Fundamental theorem of linear programming 4~5th week: Simplex method - Computational procedure - Simplex method and LU decomposition									
계획2	6~8th week: Unconstrained problems - Examples of unconstrained problems - Minimization and maximization of convex functions 9~11th: Basic descent methods - Line search by curve fitting - Method of steepest descent - Newton's method 12~13th week: Quasi-newton method - Modified newton method - Convergence properties									
계획3	14~15th week: Optimal control problems - Some optimal control examples - Minimal time and energy consumption problems									
과제물	Homework after each chapter. At the end of semester, term project could be suggested.									
참고문헌	 "Introduction to Engineering Design Optimization" written by Chinyere Onwubiko, Prentice Hall. "Linear and Nonlinear Programming" written by David G. Luenberger, Addison-Wesley. 									
평가방법	출석	과제	중간	기말	평소학습	기타	합계			
	10	20	30	40	0	0	100			
기타										

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