



UNIVERSITY OF RUHUNA
Centre for Multidisciplinary Studies and Research
Hambanthota

Offered Faculty: **Faculty of Engineering**

Offered Department: **Department of Electrical and Information Engineering**

Optimization Techniques for Engineers

OBJECTIVES

Optimization is defined as finding an alternative with the most cost effective or highest achievable performance under the given constraints, by maximizing desired factors and minimizing undesired ones. In comparison, maximization means trying to attain the highest or maximum result or outcome without regard to cost or expense. Practice of optimization is restricted by the lack of full information, and the lack of time to evaluate what information is available (see bounded reality for details). In computer simulation (modeling) of business problems, optimization is achieved usually by using optimization software like Lingo. Even though optimization is taught at undergraduate level the graduates lack the skills of applying optimization principles to their work and day to day activities. Teach the participants various optimization problems and algorithms available to solve them.

LEARNING OUTCOMES

At the end of the course, the participants would be well aware of different optimization problems encountered in day to day work at office as well as home environment.

RESOURCE PERSONS

The details of the staff member/s involved in this short course program are as follows.
Resource persons: Dr. Cyril Kariyawasam

OUTLINE OF SYLLABUS

Module Content

- Game theory
- Matching algorithms
- Cutting planes (integer programming)
- Dynamic programming

TARGET GROUP

Maximum number of 25 (Twenty five) participants will be enrolled for this course consisting of Civil, Mechanical and Electrical Engineering

ELIGIBILITY REQUIREMENTS

Equivalent qualification acceptable by the Faculty of Engineering, University of Ruhuna. Participant must be able to read research publications in the field of interest

DURATION/ DATES

Two weekends, 4 days , 6 hours per day at CMSR, Hambantota
(when minimum number of applicants reach to 20)

CERTIFICATE

Candidates will be awarded with University approved certificate upon successful completion of the programme.

MEDIUM

English.

COURSE FEE

Rs. 15,000/= (Including course material and refreshments during the course)

APPLICATION

Download from University web site, Centre for Multidisciplinary Studies and Research at Siribopura, Hambantota or Distance and Continuing Education Unit, University of Ruhuna, Welamadama, Matara.

FURTHER DETAILS

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