

# Report

Dear Sir or Madam,

We appreciate for your cooperation.  
We would like to utilize feedback from your opinion in the near future.  
Please make a report on your lecture in English.  
This report will be posted on the website of Hiroshima University.

Sincerely,

Graduate School of Engineering, Hiroshima University

**(1) Name of Lecturer:**

Elsaid Elsayed Elaraby

**(2) Position:**

Associate Professor

**(3) Affiliation:**

Faculty of Engineering, Qassim University, Kingdom of Saudi Arabia

**(4) Short Biography:**

E. E. Elaraby received his Ph.D. degree from the Department of Artificial Complex Engineering, Hiroshima University. He was a postdoctoral fellow at the Department of Artificial Complex Systems Engineering, Hiroshima University from May 2004 to April 2006. He is an Associate Professor at the Department of Electrical Engineering, Qassim University, KSA. His research interests are power system planning, operation and ancillary services pricing in electricity markets. Dr. E. E. Elaraby is a member of IEEE.

**(5) Subject and Schedule of the Lectures:**

July 13, 2016, 10:00 12:00, 14:40 16:00

Basic of optimization Techniques Economic Dispatch Problem and its formulation Available tools for solving economic dispatch Problem, Power Flow and its solution methods

July 15, 2016, 10:00 12:00, 14:40 16:00

Optimal power flow and its significance in power system operation and planning August, Preventive control and corrective control concepts, Reactive Power dispatch and Reactive Power Reserve management in Power Systems

July 20, 2016, 10:00 12:00, 14:40 16:00

Power system security and its significance in power systems, Solution methods of power system security for DC and AC model, Security constrained Optimal Power flow and solution methods of OPF, Formulation of the unit commitment problem, Solution methodologies for the hard optimization formulation (unit commitment problem solution methods.

July 20, 2016, 10:00 12:00, 14:40 16:00

Basics of Multi Objective Optimization, Dominance Concepts, Pareto Optimality, Application of multi Objective functions to power system operation and planning..

**(6) Comments:**

Total 50 students have attended the lectures. Since some students don't have not enough knowledge of power system network, review of some basic principles for power systems engineering have been presented in order to let all the students be interested in the advanced topics introduced in this lecture. Familiarities with the

optimization methods were necessary to insightful understanding of this course.

(7) Pictures:

