MASTER OF SCIENCE IN ENERGY TECHNOLOGY AND MANAGEMENT

Academic Institution: The Joint Graduate School of Energy and Environment (JGSEE)
King Mongkut's University of Technology Thonburi

Duration:
Two (2) years (academic year 2014 - 2015)

Eligible Countries:
Afghanistan, Bangladesh, Djibouti, El Salvador, Eritrea, Fiji, Gambia, Guinea, Indonesia, Iran, Jordan, Kenya, Lesotho, Malawi, Maldives, Marshalls Islands, Micronesia, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Island, Sri Lanka, Sudan, Tanzania, Timor-Leste, Uganda and Vanuatu.

Objectives:

1. To educate advanced level engineers and scientists equipped with a mix of fundamental knowledge in energy technology and energy management, analytical skills and communication skills in English, and a professional orientation.
2. To nurture future energy engineers and energy scientists with a sound appreciation of the potential impacts on the environment due to energy production and use.
3. To contribute to the body of knowledge and solutions of challenging energy and related environmental problems in industry.

Course Synopsis & Methodology:
The Energy Technology and Management program is a professional-oriented program leading to the degree of Master of Engineering (M.Eng) or Master of Science (M.Sc), depending on the undergraduate degree obtained by the student, with two potions: plan A and plan B. The program is designed for students with science or engineering background who wish to pursue a career in one of the following areas: energy policy and planning, energy management, and energy technology development and applications. The courses covered include foundation courses such as energy and environmental economics, energy technology and renewable energy, and project implementation and control; and specialized energy technology-oriented and energy management oriented courses.

1. Total credit: 42 credits
2. Structure of Program

Course	Plan	
	Plan A (Thesis base)	Plan B (Internship base)
Compulsory	21	21
Elective	9	9
Internship or International Internship	-	6
Research Study	-	6
Thesis	12	-
Total	42	42

Courses Content / Study Topic:

A. Compulsory courses **15 credits**

JEE 614 Research Methodology	2 credits
JEE 623 Energy and Environmental Economics and Policy	3 credits
JEE 624 Energy and Environmental Management and Planning	3 credits
JEE 632 Project Implementation and Control	1 credit
JEE 655 Energy Technology	2 credits
JEE 658 Renewable Energy Technologies	3 credits
JEE 601 Seminar for M.Eng/M.Sc (Energy Technology & Management)	1 credit

1. Compulsory course **6 credits**

(At least two courses must be selected from the following list)

JEE 634 Energy Management in Buildings	3 credits
JEE 642 Fuels and Combustion	3 credits
JEE 643 Energy System Analysis and Engineering	3 credits
JEE 667 Environmental Pollution Control Technology	3 credits

B. Elective courses

1. Technology-oriented courses **3 credits**

(At least one course must be selected from the following list)

JEE 608 Computational Fluid Dynamics	3 credits
JEE 644 Power Plant Engineering	3 credits
JEE 645 Clean Technologies for Solid Fuels	3 credits
JEE 646 Advanced Transport Phenomena	3 credits
JEE 652 Natural Gas Utilization Technologies	3 credits
JEE 659 Energy from Biomass	3 credits
JEE 656 Hydrogen and Fuel Cell Technologies	3 credits
JEE 657 Catalytic Processes and Reaction Engineering	3 credits
JEE 703 Selected Topics in Energy and Environment 1	3 credits
JEE 713 Selected Topics in Energy and Environment 2	3 credits

2. Management-oriented courses **3 credits**

(At least one course must be selected from the following list)

JEE 631 Project Management	3 credits
JEE 633 Energy Management in Industry	3 credits
JEE 635 Energy Management in Transportation	3 credits

3. Elective **3 credits**

Elective As recommended by advisor	3 credits

C. Options

Plan A

JEE 610 Thesis	12 credits

Plan B

JEE 616 Internship	6 credits or
JEE 617 International Internship	6 credits
JEE 618 Research study	6 credits

Laboratory;

Focus 1: Advance Fuel Processing Laboratory (AFPL)
Focus 2: Building Energy Science and Technology Laboratory (BEST)
Focus 3: Tropical Climate System Modeling Laboratory (TCSM)
Focus 4: Advance Greenhouse Gases and Aerosols Research Laboratory AGAR)
Focus 5: Sustainability Assessment Laboratory (SAL)
Focus 6: Energy and Environmental Policy Laboratory (EEPL)

Qualifications:

1. The applicant must hold a first degree in science or engineering or related fields from institutions with a minimum GPA of 2.5.

2. Applicant who do not meet these requirements may also be admitted at the consent of the Program Management Committee.

3. The applicant must have attained a satisfactory level of English language proficiency that is equivalent to TOEFL score 500. Applicants who do not meet this requirement may also be admitted provided they pass a placement test and subsequent remedial courses and/or acquire the above TOEFL score at a later of their study.

Document Required:

- Three (3) copies of the TICA application form, affixed with photographs
- Three letters of recommendation
- One (1) copy of official transcript (Bachelor Degree)
- One (1) copy of result of English performance test (e.g. TOEFL, IELT etc., if available)
- One (1) copy of ID card and Passport
- One (1) copy of a 1-inch recent photograph
- 2-3 page description of the tentative thesis proposal (if available.

Closing Date for nominations:
November 30, 2013
Late or incomplete applications/documents will not be considered.

Contact:
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