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รหัสในการสมัคร

Doctor of Philosophy Program in Environmental and Water Resources Engineering

(International Programme)

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา วิศวกรรมสิ่งแวดล้อมและทรัพยากรน้ำ (หลักสูตรนานาชาติ)

Faculty of Engineering คณะวิศวกรรมศาสตร์

Expected number of students to be accepted all year round: 2 Students

**Admission Requirements**

A candidate must:

1. hold either a Bachelor of Engineering or Science degree
2. Ph.D. Program Plan 1.1 and 2.1 require Master degree in Engineering, Science or related fields with a cumulative GPA of at least 3.50 while Plan 1.2 and 2.2 are specific plans for qualified applicants with Bachelor degree with excellence (a cumulative GPA of at least 3.50)
3. have a TOEFL score of at least 500, TOEFL computer-based score of 173, TOEFL Internet-based score of 61, or IELTS score of 5 or pass the English Proficiency Examination arranged by the Faculty of Graduate Studies.

Those who do not have any of the test scores specified above will have to take the English

Proficiency Examination of the Faculty of Graduate Studies on the specified examination day

4. In case your qualification does not match to the admission criteria, candidates must prior attach A Requesting Form for Examination" approved by the program director. The form must be submitted before making the application. Kindly download here:

[http://www.grad.mahidol.ac.th/grad/admission/form\\_th.php](http://www.grad.mahidol.ac.th/grad/admission/form_th.php)

Exceptions from the above conditions may be granted by the Programme Committee and the Dean of Faculty of Graduate Studies;

**Written Examination** (Applicants must attend the examination date accurately to your admission round.)

<u>First Round</u> January 17, 2015		<u>Second Round</u> May 16, 2015	
Subjects for examination	Time	Subjects for examination	Time
1. English	8.30 - 11.30 a.m.	1. English	8.30 - 11.30 a.m..
<b>Examination Place</b> Mahidol University , Salaya , Nakhonpathom more details : <a href="http://www.grad.mahidol.ac.th">www.grad.mahidol.ac.th</a> or Announcement at Faculty of Graduate Studies branches.			

## Curriculum Structure

		Credit
<u>Plan 1</u> Additional non-credit courses may be assigned to enroll with supervisors' agreement		
<b>Type 1.1</b> (For student with Master's degree)	<b>Type 1.2</b> (For student with Bachelor's degree)	
Dissertation	48	72
Total (not less than)	48	72
<u>Plan 2</u>		
<b>Type 2.1</b> (For student with Master's degree)	<b>Type 2.2</b> (For student with Bachelor's degree)	
Required Courses	6	12
Elective Courses (not less than)	6	12
Dissertation	36	48
Total (not less than)	48	72
<b>Required Courses</b>		<b>Credit</b>
Type 2.1 (Student with Master's degree)		
EGEW 611 Advanced Research in Environmental and Water Resources Engineering		3 (3-0-6)
EGEW 612 Experimental Design and Modeling		3 (3-0-6)
Type 2.2 (Student with Bachelor's degree)		
EGEW 611 Advanced Research in Environmental and Water Resources Engineering		3 (3-0-6)
EGEW 612 Experimental Design and Modeling		3 (3-0-6)
EGEW 621 Water Quantity and Quality Assessment : Best Management Practices		3 (3-0-6)
EGEW 622 Pollution Prevention and Control		3 (3-0-6)
<b>Elective Courses</b>		
EGEW 531 Physico-Chemical Processes		3 (3-0-6)
EGEW 532 Biological Processes		3 (3-0-6)
EGEW 533 Clean Technology		3 (3-0-6)
EGEW 534 Membrane Technology		3 (3-0-6)
EGEW 535 Waste Reuse and Recycling		3 (3-0-6)
EGEW 536 Principles of Toxicology		3 (3-0-6)
EGEW 537 Soil Pollution Engineering		3 (3-0-6)
EGEW 538 Air Pollution Modeling and Applications		3 (3-0-6)
EGEW 539 Life Cycle Assessment		3 (3-0-6)
EGEW 540 Micropollutants Control Engineering		3 (3-0-6)
EGEW 541 Applied Wastewater Microbiology		3 (3-0-6)

EGEW 542	Sediment and Pollutant Transport	3 (3-0-6)
EGEW 543	Flood and Drought Management	3 (3-0-6)
EGEW 544	Reservoir System Planning and Management	3 (3-0-6)
EGEW 545	Hydroinformatics in Water Resources Engineering	3 (3-0-6)
EGEW 546	Impact of Climate Change on Environment and Water Resources	3 (3-0-6)
EGEW 547	Geographic Information System for Environmental and Water	3 (3-0-6)
EGEW 548	Remote Sensing for Environmental and Water Resources Engineering	3 (3-0-6)
EGEW 549	Special Study	3 (3-0-6)
EGEW 550	Eco-efficient Engineering	3 (3-0-6)
EGEW 551	Environmental Impact Assessment	3 (3-0-6)
EGEW 552	Stochastic Prediction Model of Water Resources Data	3 (3-0-6)
EGEW 553	Natural Disaster Planning and Management for Water Resources Engineering	3 (3-0-6)
EGEW 554	Geoinformatics for Watershed Management	3 (3-0-6)

#### **Dissertation**

EGEW 898	Dissertation (Type 1.1)	48(0-144-0)
EGEW 899	Dissertation (Type 1.2)	72 (0-216-0)
EGEW 699	Dissertation (Type 2.1)	36 (0-108-0)
EGEW 799	Dissertation (Type 2.2)	48 (0-144-0)

**\*\* Courses may change in case of curriculum revision**

#### **Additional advantages of the programme**

- International Environment
  - Problem based learning
  - International Collaborations
- Memorandum of Understanding (MOU) for research collaboration and academic exchange were signed with many Universities such as Seoul National University, South Korea; Kyoto University, Japan; National University of Singapore, Singapore; State University of New York College at Buffalo, USA; Aalborg University, Denmark; Technical University of Hamburg, Germany and Liverpool John Moores University, UK.

#### **Research Areas**

- Natural and Advanced Techniques for Water and Wastewater Treatment
- Emerging Micropollutants
- Integrated Water Resources Management Systems
- Life Cycle Assessment and Eco-efficient Engineering
- Industrial Pollution Prevention and Control
- Solid and Hazardous Waste Management

#### **Concept paper Presentation**

It is recommended that the candidate prepare a concept paper (2-3 pages)

#### **Details of Scholarship**

- Grants through project and funding from many agencies are also available.

## Application Process

Application is only available via online at [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

## Required Documents

Prepare the following required documents to submit via online admission system or post :

- Two (2) recent photographs (1x1 inch in size)
  - A copy of an applicant's degree certificate or a letter of graduation certification (for an applicant with a degree completion) 2 copies
  - A letter certifying that an applicant is currently in the final year prior to graduation (for an applicant seeking for a degree) 2 copies
  - A detailed transcript of a degree (for an applicant with a degree completion) 2 copies
  - A grade report with course names and grades received from the first to the current semester prior to graduation 2 copies
  - A copy of identification card 2 copies
  - A copy of house registration certification 2 copies
  - A copy of Certificate of English score: TOEFL/IELTS/MU-Test (if any). See detail here: [http://www.grad.mahidol.ac.th/grad/academicinfo/engstandard2553\\_th.php](http://www.grad.mahidol.ac.th/grad/academicinfo/engstandard2553_th.php) 2 copies
- Those who early submit a valid English score prior to the examination will be exempt from English test on the examination date.
- A copy of proof of payment.

Submitting documents via online admission system.

- All documents must be in pdf format (maximum size 2 MB)
- Recent photograph must be in jpeg format only (maximum size 2 MB)

## Job opportunity after graduation

1. Water resource engineer, environmental engineer in Private and Public sectors.
2. Researcher and university Professors at national, regional and International levels.
3. Consultants for the Private and Public Sectors.

Further information may be obtained from the Director of Graduate Studies, Environmental And Water Resources Engineering:

### Program Director

1. **Assoc.Prof.Dr. Ranjna Jindal** (E-mail : [ranjna.jindal@gmail.com](mailto:ranjna.jindal@gmail.com))  
Room 6386, Engineering Building 3, Floor 3, Department of Civil & Environmental Engineering,  
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Tel : 0 2889 2138 Ext. 6386 Fax: 0 2889 2138 Ext. 6388
2. **Dr.Romanee Thongdara** (E-mail : [romanee\\_t@yahoo.com](mailto:romanee_t@yahoo.com), [romanee.tho@mahidol.ac.th](mailto:romanee.tho@mahidol.ac.th))  
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### Program Coordinator

1. **Miss Wikanda Wannagasame** (E-mail : [wikanda.wan@mahidol.ac.th](mailto:wikanda.wan@mahidol.ac.th))  
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**Notes** For more educational information : [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

For more information please contact The Student Admission Section.  
Tel . 0 2441 4125 ext. 208-210 , 0 2441 9129, E-mail: [gradthai@mahidol.ac.th](mailto:gradthai@mahidol.ac.th)