



## Announcement

### King Mongkut's Institute of Technology Ladkrabang Doctoral Scholarships Academic Year 2022

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King Mongkut's Institute of Technology Ladkrabang (KMITL) invites qualified applicants to apply for KMITL's Full Doctoral Scholarships in Academic Year 2022. The Scholarships are supported by the board of KMITL's Research Funds and the board of KMITL's Human Resource Funds in the title of KMITL Doctoral Scholarships. The scholarships aim to produce highly qualified Ph.D. researchers from KMITL.

#### 1. Number of scholarships

- 1.1 For Thai student: 10 scholarships.
- 1.2 For International student: 20 scholarships.

The scholarships will be provided within 3 consecutive academic years for graduate students or 5 consecutive academic years for undergraduate students. Scholarships are given based on the applicant's qualifications and their advisor's qualifications.

**The judgment of the committee is final.**

#### 2. Applicant Eligibility

- 2.1 Applicants must be under the age of 40 years at the date of the application deadline.
- 2.2 **For undergraduate students:** Applicants must have a bachelor's degree with a GPA of at least 3.25 on the 4.0 scale **OR** have research publication(s), Innovation, a Patent, a Pretty Patent or Award as a preference and **don't currently study a master's degree at KMITL.**
- 2.3 **For graduate students:** Applicants must have a bachelor's degree with a GPA of at least 3.0 on the 4.0 scale, **AND** a master's degree in a discipline related to the proposed doctoral study with a GPA of at least 3.5 on the 4.0 scale **OR** have research publication(s), Innovation, a Patent, a Pretty Patent or Award as a preference and **don't currently study a doctoral degree at KMITL.**
- 2.4 Applicants must have an English proficiency test result that meets at least one of the following requirements:

English Test Requirement	Minimum score*
TOEFL (paper-based)	450
TOEFL (computer-based)	133
TOEFL (internet-based)	45
IELTS	4.0
CU-TEP	45
KMITL-TEP	B1

\*(Scores must be valid on the date of the application deadline)

2.5 Applicants must choose their academic program listed in **Appendix B**.

### 3. Application Schedule

The application Submission period is from now until **April 8, 2022**

The deadline for application submission is on April 8, 2022 at 6 p.m. (Thailand time).  
No extensions of the deadline will be granted under any circumstances.

### 4. Application Submission

Please download and fill out an application form from the website <http://hr.kmitl.ac.th> and submit the application form and supporting documents to the Human Resource Management Office, 5<sup>th</sup> floor, President's Building, King Mongkut's Institute of Technology Ladkrabang **OR** by Email: [hr@kmitl.ac.th](mailto:hr@kmitl.ac.th) (**with the email subject: "Application for KMITL Doctoral Scholarships 2022\_your name\_surname"**)

*For example: Application for KMITL Doctoral Scholarships 2022\_Hasakarn\_Thongzunhor.*

For more information, please contact the Human Resource Management Office at the President's Building, King Mongkut's Institute of Technology Ladkrabang (KMITL), Email: [hr@kmitl.ac.th](mailto:hr@kmitl.ac.th), or Phone number +662-329-8000 ext. 3271, 3272 (Ms. Hasakarn).

### 5. Supporting documents

5.1 KMITL Doctoral Scholarship Application Form with a photograph taken not more than 6 months before the deadline of application.

5.2 A certified copy of your Bachelor's Degree Transcript for undergraduate students, **OR** a copy of your Bachelor's Degree and Master's Degree Transcript for graduate students.

5.3 A certified copy of your Identification Card or Passport.

5.4 A certified copy of your English proficiency test result.

5.5 A letter of Recommendation for the KMITL Doctoral Scholarship (if any).

5.6 Other related documents (if any).

## 6. Scholarship Offer

- 6.1 Tuition fees
- 6.2 Salary
  - a) For undergraduate students:
    - 12,000 baht/month, but not exceeding 60 months
    - 18,000 baht/month, but not exceeding 63 months
  - b) For graduate students:
    - 12,000 baht/month, but not exceeding 36 months
    - 18,000 baht/month, but not exceeding 39 months
- 6.3 Short-term Overseas Research fund for **Thai students** (400,000 baht)
- 6.4 An economy class air ticket for **International students**

## 7. Scholarship Decision

A list of the scholars will be announced by the Human Resource Management Office at <http://hr.kmitl.ac.th> on **April 29, 2022**

## 8. Terms and Conditions of the Scholarship

- 8.1 In the case that the scholar receives other scholarships due to inappropriate reasons, the scholarship will be terminated.
- 8.2 The scholar has to be KMITL staff in the position of a Research Assistant.
- 8.3 The scholar should be fully aware, eager, and willing to reap academic and other activities.
- 8.4 The scholar must confirm to study within 30 days via email after the date of the scholarship decision announcement has been published.
- 8.5 The scholar must sign a contract within 30 days before the start date of the semester. The scholar will be able to study in the 1<sup>st</sup> semester of Year 2022 (August 2022) **OR** 2<sup>nd</sup> semester of Year 2022 (January 2023).
- 8.6 The scholar must submit a progress report at the end of every semester in order to receive the next installment of funding.
- 8.7 The scholar has to comply with the following:
  - a) The scholar has to publish a research paper that has been accepted in the international journal (Full Paper) indexed as Q1 or Q2 or Q3 in the Web of Science; at least 1 publication **OR** indexed as Q1 or Q2 by the Scimago Journal Ranking. The paper must have the scholar's name as a first author and advisor's name **OR** any other workpiece such as patented product, innovative product, creative design, commercial or public model – 1 piece (within 3 years for undergraduates and 2 years for graduates).
  - b) Acknowledgment must be stated as follows: *"This work was supported by King Mongkut's Institute of Technology Ladkrabang."*

- c) The scholarship providers and the scholars have mutual proprietary rights to any research results that come out from the project.
- d) The research benefit distribution must follow KMITL's regulations.
- e) In the case that the scholar and advisor cannot meet the project's target without valid reasons, the scholar and advisor will no longer obtain any further scholarships from KMITL.

## 9. Scholarship cancellation

- 9.1 The scholar leaves education, retires or has been revoked from Ph.D. Student status as a punishment.
- 9.2 The scholar breaches KMITL policies and procedures, rules, and/or regulations.
- 9.3 The scholar has received other scholarships instead.
- 9.4 The scholar fails to meet the criteria or terms and conditions of the scholarship.
- 9.5 The scholar is not able to complete his/her course within the scholarship period.

The KMITL Doctoral Scholarship committee may make any decisions regarding changes to the agreements and regulations.

The interpretation and construction of any terms or conditions of this announcement or other matters related to this Scholarship shall be final and conclusive by the President.

Announced on January 24, 2022



(Assoc.Prof.Dr. Chamroon Laosinwattana)

Acting Executive Vice President for Human Resource Development

Acting on behalf of President

## Doctoral Degree Admission Calendar

### KMITL Doctoral Scholarships

### Beginning Academic Year 2022

Details	Date
1. To apply, please download and fill out an application form from the website <a href="http://hr.kmitl.ac.th/">http://hr.kmitl.ac.th/</a> and send us your application and relevant documents by Email to: <a href="mailto:hr@kmitl.ac.th">hr@kmitl.ac.th</a> (with the email subject: “ <b>Application for KMITL Doctoral Scholarship and your name</b> ”); or at the Human Resource Management Office on the 5 <sup>th</sup> floor at the President’s Building.	Now – April 8, 2022
2. Selection Period	April 2022
3. Announcement of successful students	April 29, 2022
4. Confirmation period	May 2 – 31, 2022
5. Contract signing period for Academic Year 1/2022	July 1 – 29, 2022
6. Contract signing period for Academic Year 2/2022	December 1 – 30, 2022
7. Academic Year 1/2022 Academic Year 2/2022	Start at the beginning of August 2022 Start at the beginning of January 2023

*Appendix A – GPA Conversion Table.*

4.00 Scale	4.30 Scale	4.50 Scale	5.00 Scale	100 Points Scale
3.97 – 4.00	4.26 – 4.30	4.46 – 4.50	4.95 – 5.00	100
3.92 – 3.96	4.22 – 4.25	4.41 – 4.45	4.90 – 4.94	99
3.88 – 3.91	4.17 – 4.21	4.36 – 4.40	4.84 – 4.89	98
3.84 – 3.87	4.12 – 4.16	4.31 – 4.35	4.79 – 4.83	97
3.80 – 3.83	4.08 – 4.11	4.26 – 4.30	4.73 – 4.78	96
3.75 – 3.79	4.03 – 4.07	4.21 – 4.25	4.68 – 4.72	95
3.71 – 3.74	3.98 – 4.02	4.16 – 4.20	4.62 – 4.67	94
3.67 – 3.70	3.93 – 3.97	4.11 – 4.15	4.57 – 4.61	93
3.62 – 3.66	3.89 – 3.92	4.06 – 4.10	4.51 – 4.56	92
3.58 – 3.61	3.84 – 3.88	4.01 – 4.05	4.45 – 4.50	91
3.49 – 3.57	3.75 – 3.83	3.91 – 4.00	4.34 – 4.44	90
3.41 – 3.48	3.65 – 3.74	3.81 – 3.90	4.23 – 4.33	89
3.32 – 3.40	3.56 – 3.64	3.71 – 3.80	4.12 – 4.22	88
3.24 – 3.31	3.46 – 3.55	3.61 – 3.70	4.01 – 4.11	87
3.15 – 3.23	3.37 – 3.45	3.51 – 3.60	3.90 – 4.00	86
3.07 – 3.14	3.27 – 3.36	3.41 – 3.50	3.79 – 3.89	85
2.98 – 3.06	3.18 – 3.26	3.31 – 3.40	3.68 – 3.78	84
2.90 – 2.97	3.09 – 3.17	3.21 – 3.30	3.57 – 3.67	83
2.81 – 2.89	2.99 – 3.08	3.11 – 3.20	3.45 – 3.56	82
2.72 – 2.80	2.90 – 2.98	3.01 – 3.10	3.34 – 3.44	81
2.64 – 2.71	2.80 – 2.89	2.91 – 3.00	3.23 – 3.33	80

**Appendix B**  
**The list of Academic Programs.**

Applicants must choose an academic program from the list of Academic Programs only. For more information, please visit <http://reg.kmitl.ac.th/curriculum/index.php>.

No.	Program / Scope and Specialized field of Research
<b>School of Engineering</b>	
<b>1</b>	<p><b>Doctor of Engineering (Biomedical Engineering)</b></p> <p>1. Our research is focused on the design, synthesis and biological evaluation of small molecule for diseases including cancer, malaria and inflammatory diseases. Our large multidisciplinary group with demonstrated expertise in organic synthesis, medicinal chemistry, pharmaceutical formulation, nanomaterials, computational chemistry and cheminformatics.</p> <p>2. Other related fields.</p>
<b>2</b>	<p><b>Doctor of Engineering (Electrical Engineering)</b></p> <p>1. Device fabrication and investigation of electronic properties of graphene, MoS<sub>2</sub>, graphene derivatives such as graphite oxide, and other potential materials.</p> <p>2. 2D materials transfer and heterostructure assembly Chemical Vapor Deposition (CVD) synthesis of 2D materials.</p> <p>3. Other related fields.</p>
<b>School of Agriculture Technology</b>	
<b>3</b>	<p><b>Doctor of Philosophy (Agriculture)</b></p> <p>1. agronomy and plant breeding especially rice and peanut.</p> <p>2. selection of cultivars that are resistant to inappropriate environments such drought and salinity stress.</p> <p>3. phytochemicals in field crop.</p> <p>4. Postharvest Technology of fresh produce</p> <p>5. Conventional plant breeding, Molecular plant breeding, Breeding for resistance, Resistance mechanisms, Pepper breeding, Tomato breeding, QTLs mapping</p> <p>6. Other related fields.</p>

No.	Program / Scope and Specialized field of Research
<b>School of Science</b>	
4	<p><b>Doctor of Philosophy (Applied Mathematics)</b></p> <ol style="list-style-type: none"> <li>1. Mathematical simulation in environmental impact assessment and control such as air pollution modeling, water pollution modeling, groundwater pollution modeling and airborne infection modeling.</li> <li>2. Differential Equations;Mathematical Modeling;Numerical Analysis; Optimal Control</li> <li>3. Matrix theory.</li> <li>4. Operator theory.</li> <li>5. Iterative methods for linear system, linear/nonlinear matrix equations.</li> <li>6. Other related fields.</li> </ol>
5	<p><b>Doctor of Philosophy (Applied Chemistry)</b></p> <ol style="list-style-type: none"> <li>1. Synthesis of modified biopolymers (chitosan, cellulose, starch, alginate, etc.) and their applications.</li> <li>2. Catalyst, Catalysis, Biomass conversion, Sustainable chemistry, Fatty acid methyl ester, Metathesis Highly dispersed metal oxide catalysts.</li> <li>3. Mechanistic Insights to Heterogeneous Catalysis</li> <li>4. Simulation of Biological Activity, Substrate Binding and Reactivity and Inhibition.</li> <li>5. Molecular Modelling of Inhibitors with a View to Guiding Synthesis Performed by Experimental Collaborators Working in the Drug Discovery field.</li> <li>6. Synthesis and development of biocompatible materials for medical applications</li> <li>7. Synthesis and development of nanostructured materials for diversified applications including medical and drug delivery, textiles, wastewater treatment, agricultural applications</li> <li>8. Conversion of palm oil FAMES to bio-based chemicals and fuels.</li> <li>9. Ethanol and Biomass derivatives Conversion over Zeolite Catalysts.</li> <li>10. Gas Adsorption &amp; Diffusion on Zeolites and its Applications in Gas Separation Process.</li> <li>11. Biomass conversion over heterogeneous catalysts.</li> <li>12. Light alkane conversion for petrochemical feedstock and liquid fuel.</li> <li>13. Other related fields.</li> </ol>
6	<p><b>Doctor of Philosophy (Biotechnology)</b></p> <ol style="list-style-type: none"> <li>1. Fungi isolation, identification, taxonomy, molecular techniques and bioinformatics Fungi application to produce fertilizer.</li> <li>2. Other related fields.</li> </ol>



No.	Program / Scope and Specialized field of Research
<b>School of Science</b>	
7	<p><b>Doctor of Philosophy (Applied Physics)</b></p> <ol style="list-style-type: none"> <li>1. Electronic and Optical Device Manufacturing, Thin Solid Films, Solid State Physics, Laser and Plasma, Energy Production and Consumption, Material and Device Characterizations, Quality Control for Industry.</li> <li>2. Plasma-enhanced chemical vapour deposition (PECVD) of transition metal dichalcogenides. Graphene-based heterostructures for novel electronics and quantum applications. Sensor applications based on graphene derivatives/Other 2D materials.</li> <li>3. Other related fields.</li> </ol>
<b>KMITL Business School</b>	
8	<p><b>Doctor of Philosophy (Industrial Business Administration) (International Program)</b></p> <ol style="list-style-type: none"> <li>1. Global Entrepreneurship, Immigrant Entrepreneurship, Industry 4.0 and Innovation, Offshore Outsourcing and Developing Dynamic Capabilities in SMEs, Emerging Country Markets, Technology Management.</li> <li>2. E-Business, Technology Management, Technology Adoption, Human Resource Management, and Organizational Behavior.</li> <li>3. Innovation and Technology Management, Technology Adoption, Digital Business and E-commerce, Techno-Entrepreneur Development and Information System Development.</li> <li>4. Human Resource Management, Organization Development, Industrial Management.</li> <li>5. Logistics &amp; Supply Chain Management.</li> <li>6. Other related fields.</li> </ol>
<b>Faculty of Information Technology</b>	
9	<p><b>Doctor of Philosophy (Information Technology)</b></p> <ol style="list-style-type: none"> <li>1. Natural Language Processing (including understanding and generation, i.e., QA, translation)</li> <li>2. Knowledge engineering (including information extraction, knowledge representation, ontology construction, knowledge sharing)</li> <li>3. Data sciences and intelligent systems (applied data science to build intelligent systems)</li> <li>4. Other related fields.</li> </ol>

No.	Program / Scope and Specialized field of Research
<b>School of Industrial Education and Technology</b>	
10	<p><b>Doctor of Philosophy (Innovative Tropical Agricultures)</b></p> <ol style="list-style-type: none"> <li>1. Meat Science (Musle Growth, Postmortem Proteolysis, Carcass and Meat Quality)</li> <li>2. Postharvest Technology and Biology of Fruit and Vegetable.</li> <li>3. Food Packaging</li> <li>4. Other related fields.</li> </ol>
<b>School of Food Industry</b>	
11	<p><b>Doctor of Philosophy (Food Science) (International Program)</b></p> <ol style="list-style-type: none"> <li>1. Development of functional food products.</li> <li>2. Effects of food processing on nutrient changes in food products.</li> <li>3. changes in food products3.Food colloids: Emulsion, Foam, Gel.</li> <li>4. Application of bioprocess in the production of value added products from agricultural wastes</li> <li>5. Using recombinant DNA technology to improve microbial strains for process optimization</li> <li>6. Brotilm application.</li> <li>7. Food safety.</li> <li>8. Bioactive and intelligent packaging.</li> <li>9. Food processing waste tilization.</li> <li>10. Sustainable food processing.</li> <li>11. Encapsulation technologies for bioactive compounds.</li> <li>12. Food microbiology.</li> <li>13. Postbiotics and parabiotics.</li> <li>14. Functional properties of plant metabolites.</li> <li>15. Utilization of Agro waste, food processing waste and byproducts.</li> <li>16. Organic Pollutants contaminated in food and Environmental.</li> <li>17. Environmental chemistry.</li> <li>18. Water and Wastewater treatment: Advanced oxidation processes, adsorption.</li> <li>19. Design of Experimental (DOE) and Response Surface Methodology (RSM).</li> <li>20. Biolubricant synthesis from waste cooking oil.</li> <li>21. Intellegent Packaging.</li> <li>22. Nondestructive evaluation, Near infrared spectroscopy, Agricultural and food engineering.</li> <li>23. Sea-food science and processing.</li> <li>24. Edible packaging and coating.</li> </ol>

No.	Program / Scope and Specialized field of Research
<b>School of Food Industry</b>	
11	<p><b>Doctor of Philosophy (Food Science) (International Program)</b></p> <p>25. Food chemistry of proteins and lipids.</p> <p>26. Zero waster and Sustainable utilization of seafood and poultry processing waste for production of value added products.</p> <p>27. Plant metabolites for biological activity and application.</p> <p>28. Enzymes and microbes in food processing and value addition.</p> <p>29. Micor- and nano-encapsulaiton.</p> <p>30. Other related fields.</p>
<b>College of Advanced Manufacturing Innovation</b>	
12	<p><b>Doctor of Philosophy (Advanced Manufacturing System Engineering)</b></p> <p>1. Integrated circuit design focusing on passive and active RF circuits (microwave frequencies). For passive circuits, the research focus on couplers, baluns, power dividers. For active circuits, the research focus on RF transceiver blocks.</p> <p>2. Other related fields.</p>