

Department of Mechanical and Automotive Engineering,
Department of Future Convergence Engineering,
Center for Advanced Materials and Parts of Powder (CAMP²)
College of Engineering, Kongju National University



Engineering Building I,
1223-24 Cheonandaero, Seobuk-gu,
Cheonan, 31080, South Korea

PHONE : +82-41-521-9260
FAX : +82-41-555-9123

To the Department chairs

Dear Sir/Madam:

Please find the attached documents to introduce graduate studies (MS/PhD) at the ‘Department of Mechanical and Automotive Engineering’ and ‘Department of Future Convergence Engineering’, Kongju National University (KNU), Cheonan, South Korea.

We welcome and encourage the students, having the degrees of ‘Bachelor/Master of Science’ and ‘Bachelor/Master of Engineering’, apply to the graduate studies (MS/PhD).

Disciplines we are interested in are as follows

- Mechanical Engineering (Machinery & Transportation)
- Mechatronics
- Manufacturing Engineering
- Metallurgy
- Material and Metal Technology
- Engineering Physics
- Machinery technology
- Automotive engineering

We appreciate your help and look forward to hearing from you. With best wishes

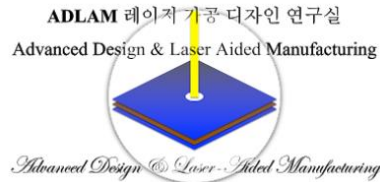
Your Sincerely

Dongkyoung Lee, Ph.D.

(Signature)

<http://adlam.kongju.ac.kr>

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Introduction to Graduate studies at Mechanical and Automotive Engineering @KNU

1. Objectives

This proposal is suggested to invite self-motivated and hard-working students for graduate studies at the ‘Department of Mechanical and Automotive Engineering (MAE)’ and ‘Department of Future Convergence Engineering’, Kongju National University, Cheonan, South Korea. The Kongju National University (KNU) is one of the top public institutions, or South Korean Government-running University such as Seoul National University and Korean Advanced Institute of Science and Technology, in South Korea. The KNU is a fast-growing university in terms of research achievement and student education. The followings are detailed information for the graduate studies.

2. Language Requirements

- The applicant should satisfy one of the following language criteria.
- If the undergraduate course materials were English, Language requirement is waived
 - 530 or higher on TOEFL PBT, 197 or higher on TOEFL CBT, 71 or higher on TOEFL iBT
 - 5.5 or higher on IELTS
 - B2 or higher on CEFR
 - 600 or higher on TEPS, 326 or higher on NEW TEPS
 - 700 or higher on TOEIC
 - Level 3 or higher on TOPIK

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3. Research output

Advanced Design & Laser-Aided Manufacturing Lab. (Dr. Dongkyoung Lee)

<http://adlam.kongju.ac.kr>

Representative Papers (5)

Youngjin Seo, Jungsoo Nam, Huitaek Yun, Martin Byung Guk Jun, Dongkyoung Lee *,
 Effect of Au-coating on the laser spot cutting on spring contact probe (SCP) for semi-
 conductor inspection, *Materials*, 2021, SCI(E)

Mang Muan Lian, Youngjin Seo, Dongkyoung Lee*, An Experimental Investigation on the
 Cutting Quality of Three Different Rock Specimens using High Power Multimode Fiber
 Laser, *Materials*, 2021, SCI(E)

Mulugeta Gebrios Berhe, Dongkyoung Lee*, A comparative study on the wettability of
 unstructured and structured LiFePO₄ with nanosecond pulsed fiber laser, *Micromachines*,
 2021, SCI(E)

Dongkyu Park, Dongkyoung Lee*, "Effect of fluence and multi-pass on groove
 morphology and process efficiency of laser structuring for 3D electrodes of lithium-ion
 batteries", *Materials*, 2021, SCI(E)

Dongkyu Park, Dongkyoung Lee*, "The effect of electrode thickness on edge quality in
 laser cutting", *Journal of Korean Society of Precision Engineering*, 2021

Representative Projects (5)

Fundamental study of laser processing on lithium-metal batteries(LMBs)
 ₩350,000,000, 2019.09.01~2023.02.28

Graduate Program for Eco-Friendly Future Automotive Technology ₩2,184,000,000,
 2020.09.01~2026.12.31

Advanced Powder Material & Parts Research Infrastructure Development
 ₩12,970,000,000, 2021.05.01~2025.12.31

**Manufacture and design optimization of fuel cell bipolar plates for eco-friendly
 hydrogen vehicles using dimensional fusion carbon materials** ₩400,000,000,
 2021.04.01~2022.12.31

Advanced Manufacturing R&D human resource development project ₩300,000,000,
 2020.05.09~2022.05.08

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4. Laboratory information

Laboratory name	Research Topic	Current students
Advanced Design & Laser-Aided Manufacturing Adlam.kongju.ac.kr	<ul style="list-style-type: none"> • Advanced Mechanical/Machinery Design and optimization in the field of Aerospace, Automotive, and Ship-building • Understanding of Engineering physics, Heat engineering, Material Science, and Metal Science during laser-aided manufacturing • Laser cutting of electrodes for li-ion batteries and concrete composites • Laser surface treatment for De/Anti-Icing • Effect of surface environment for laser-material interaction • Advanced design of 3D cell culturing plates 	1 Post-doctor 1 Ph.D candidate 5 MS candidates 4 BS candidates (Fall 2021)
Advisor Dongkyoung Lee, Ph.D.		

5. Requirement for application

Advanced Design & Laser-Aided Manufacturing Lab. (Dr. Dongkyoung Lee)

<http://adlam.kongju.ac.kr>

We are looking for graduate and undergraduate students, and postdoctoral fellows with background of mechanical engineering, advanced manufacturing, thermal science, material science and engineering, and civil engineering with demonstrated ingenuity, productivity, and ability to work in a diverse, high energy environment.

Please contact by email to Prof. Dongkyoung Lee (ldkkinka@kongju.ac.kr) with CV and transcript. And fill out the form (<https://forms.gle/PHYishpJgU7LDb9i7>)

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6. Scholarship information

Full stipend and tuition fee will be given for the qualified students. Starting scholarship total will be **KRW 9,600,000 ~ KRW 13,200,000** per year for **master** students (**One of the best and hard-working student get paid KRW 26,600,000**) and **KRW 9,600,000 ~ KRW 18,000,000** per year for **Ph.D.** students, depending on scholarly performance.