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15 February, 2024
Application ID: 155581

GLOBALINK RESEARCH INTERNSHIP (GRI) AWARD LETTER
DISBURSEMENT INFORMATION AND PLACEMENT TERMS AND CONDITIONS

Dear Shanza Kainat,

Congratulations! You have been selected by Mitacs and Professor Syeda Tasnim from University of Guelph to receive a 2023 Globalink Research Internship award. You are therefore invited to participate in a research project at University of Guelph. **Pursuant to an agreement with University of Guelph, Mitacs will administer your funding grant.**

Mitacs Globalink Research Internship is a competitive program that pairs top-ranked international students with specific research expertise with faculty at Canadian academic institutions for a twelve (12) week research project of mutual interest between May and October 2023. You have been selected by your Canadian host faculty project supervisor due to your background and skills in the research area and the unique contribution you will be making to the research during your stay. **The skills required for your role (as described in the research description below) were found to clearly match your skills set, education, and research experience.**

Research internship details

University/Institution:	University of Guelph
Host professor:	Syeda Tasnim

UNIVERSITY of GUELPH

SCHOOL OF ENGINEERING/ECOLE D'INGENIERIE

Reference for Shanza Kainat

It is my distinct pleasure to write this letter of recommendation for Shanza Kainat, who worked under my supervision in Summer 2024 in a research project on "Developing and analyzing Battery Thermal Management Systems" at the University of Guelph. She was awarded a fully funded research scholarship to join our institution, and her exceptional performance throughout this project has made a lasting impression on myself and the research team.

During her time at the University of Guelph, Shanza made significant contributions to research in developing and analyzing a battery thermal management system integrating thermoelectric coolers and phase change materials. She was responsible for developing advanced numerical simulation using COMSOL to simulate the battery chemical and thermal characteristics, designing and developing a prototype of a battery thermal management system, and conducting testing to optimize the thermal performance of the developed system. These tasks required a comprehensive understanding of fundamental engineering principles, keen analytical skills, time management, team work, and meticulous attention to detail—attributes that she consistently displayed. Her ability to analyze complex challenges on developing an experimental setup in a limited time, propose innovative solutions, and implement them effectively was truly exceptional.

Beyond her technical acumen, Shanza demonstrated an outstanding work ethic and a strong commitment to excellence. She actively sought feedback to improve her work, quickly adapted to challenges, and consistently contributed meaningful insights during team discussions. Her exemplary communication skills enabled her to articulate findings clearly in a written report. We are currently editing the report for possible publication to a journal.

Her unwavering passion for advancing knowledge, coupled with her proven ability to successfully tackle projects, makes her an exceptional candidate for this scholarship. I wholeheartedly recommend Shanza Kainat for this opportunity. Please feel free to contact me.

Sincerely,

Syeda Humaira Tasnim

Syeda Tasnim, PhD, PEng
Associate Professor & MEng Coordinator
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UNIVERSITY of GUELPH

SCHOOL OF ENGINEERING/ECOLE D'INGENIERIE

It is with great enthusiasm that I write this letter in support of Shanza Kainat, who worked under my supervision during the Summer of 2024 on the research project **"Battery Thermal Management by PCM"** at the University of Guelph. She was awarded a fully funded research scholarship to join our institution, and her dedication, technical expertise, and problem-solving abilities were evident throughout the project.

Shanza played a pivotal role in designing and optimizing a battery thermal management system incorporating phase change materials (PCM) and thermoelectric coolers (TEC). Her work involved conducting numerical simulations using COMSOL to study the coupled thermal and electrochemical behavior of lithium-ion batteries, fabricating an experimental setup to validate the results, and analyzing the system's performance under different operating conditions. She approached these challenges with remarkable analytical skills, precision, and creativity, which significantly contributed to the success of the project.

One of the most impressive aspects of Shanza's work was her ability to bridge the gap between simulation and experimentation. She successfully translated theoretical models into a practical prototype and demonstrated excellent adaptability in troubleshooting and refining the system within a constrained timeline. Her proficiency in critical thinking, teamwork, and technical reporting made her an invaluable member of our research group. Moreover, her dedication to ensuring high-quality outcomes led to the development of a research paper, which is currently under review for publication.

Beyond her technical contributions, Shanza displayed exceptional work ethic, perseverance, and eagerness to learn. She actively engaged in discussions, sought constructive feedback, and showed a strong ability to communicate complex concepts clearly. Her enthusiasm for research and commitment to advancing knowledge in energy-efficient technologies make her an outstanding candidate for this scholarship.

I strongly recommend Shanza Kainat for this opportunity. Please do not hesitate to reach out if you require further details.

Sincerely,

Kasra Ghasemi
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DEPARTMENT OF MECHANICAL MECHATRONICS AND MANUFACTURING ENGINEERING, (KSK-CAMSPUS), UET LAHORE

Letter of Recommendation

I am writing this recommendation at the request of Shanza Kainat who is applying for this scholarship.

It is my privilege to enthusiastically recommend Shanza Kainat as a student of undergraduate studies at University of Engineering and Technology, New Campus, Lahore for more than 3years and can attest to her exceptional qualities and suitability for this prestigious scholarship. I taught her three courses: Machine Tool and Machining, Machine tool and Machining Lab, Machine Design and CAD-II. In these courses she showed Excellent performance. Throughout my interaction with Shanza Kainat, I have been consistently impressed by her outstanding academic achievements, intellectual curiosity, and strong dedication to her field of study. She has consistently demonstrated exceptional aptitude and enthusiasm for learning.

She is also very good in applying her concepts. The quality of her work has always been appreciable. Beyond Shanza Kainat's impressive academic record, she also possesses outstanding interpersonal skills and a natural ability to work effectively in a team.

It is my firm belief that Shanza Kainat is an ideal candidate and will excel and make meaningful contributions. Her academic brilliance, unwavering dedication, and passion for engineering make her an outstanding candidate for this prestigious programme.

I feel certain that you will be just as impressed with Shanza Kainat as I am. As an educator who is committed to help deserving students succeed, I strongly encourage you to consider her for this scholarship. Please contact me with any questions and let me know if I can provide any additional information in support of this deserving student. Please feel free to contact me.

Your sincerely,

Dr. Saad Nawaz
(HEC Approved PhD Supervisor)
Assistant Professor
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University of Engineering & Technology, Lahore.
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DEPARTMENT OF MECHANICAL MECHATRONICS AND MANUFACTURING ENGINEERING,(KSK-CAMSPUS),UET LAHORE

Letter of Recommendation

I am pleased that I write this letter of recommendation for Miss. Shanza Kainat. Very rarely people in teaching profession like me come across a student like her. This has been penned down by me to make it very concrete that Shanza Kainat is a very unique and exceptional character in the student community.

Shanza Kainat is a student of University of Engineering and technology, Lahore, New Campus. During the time, I have known her It has become apparent to me she is example of good citizen who is committed to academics as well as to growing in professional life while helping others. I have the pleasure of working closely with her regarding research paper and impressed with her exceptional abilities and dedication. She possesses excellent analytical skills and is able to approach research challenges with both creativity and precision. Shanza Kainat is adept at conducting thorough literature reviews, designing and executing experiments, and analyzing data. Her contribution is invaluable to our research team.

Her academic achievements are truly remarkable, consistently earning top grades across a range of courses: Manufacturing Processes Lab & Metrology and Quality Assurance. She has a good logical reasoning ability and will always try to solve problems efficiently. In addition, she has demonstrated excellent powers of observation, and has the ability to communicate and suggest changes that were effective upon implementation

In addition to her outstanding academic and research performance, Shanza Kainat is a highly motivated and responsible individual. She possesses excellent time management skills and can effectively prioritize tasks to meet deadlines without compromising the quality of hers work. I cannot think of anyone more deserving and I wholeheartedly support her application.

I am proud to be able to provide this letter for scholarship. Please let me know if you have any questions or if you would like to speak with me in more detail about why Shanza Kainat deserves consideration for this award.
Your sincerely,

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Mechanical Engineering Department (KSK)
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