

NICL TIMES

Celebrating
Innovation



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DIRECTOR'S MESSAGE

Nauman Zaffar

Dear Reader,

I am thrilled to present the third issue of NICL Times, our biannual newsletter, on behalf of my team. This marks a significant milestone as we celebrate NICL's five-year journey at LUMS.

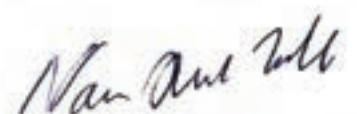
Throughout this journey, we have collaborated with partners from the startup ecosystem, fostering a rewarding learning curve and contributing to young entrepreneurs' growth. Our focus on key verticals like agriculture, education, environment, fintech, and healthcare has forged extensive resources and industry partnerships, benefiting startups in the long run.

Explore these pages to discover one of our most valuable assets – the Makers Lab. This facility provides startups, students, and researchers access to resources for rapid prototyping. Developed with Fatima Ventures, Ignite, and LUMS, the Lab extends its utility beyond NICL, serving incubation centers, accelerators, HEIs, and industries.

Our vision is a thriving Makers culture in Pakistan, making prototyping accessible and retaining designs locally. NICL has also added new labs at LUMS: AR/VR, Usability, FinTech, and Biomechanics, supporting deep tech startups. Furthermore, our future plans include enhancing existing labs, services, and seeking partnerships for broader facilities.

I am proud of our five-year journey which would not have been possible without our partners' utmost support and I am confident in an even brighter future. Enjoy reading about NICL's activities, and I look forward to your thoughts.

Happy Reading!



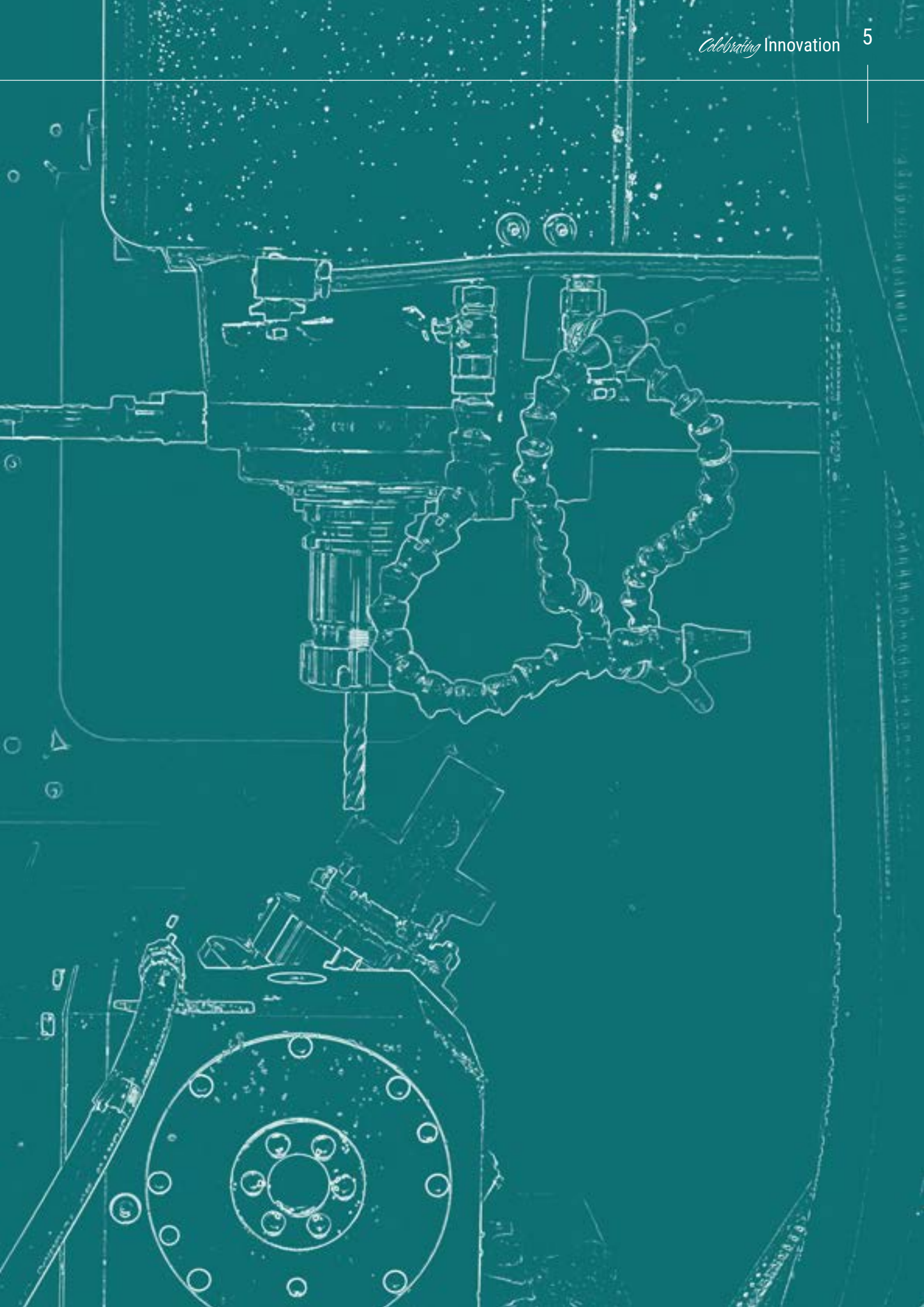
NICL MAKERS LAB

Where Ideas Come to Life

Whether you are a startup founder, student, researcher or hobbyist, witnessing your idea take physical form can be a pivotal moment, bringing you closer to your ultimate goal.

This is why the vision of the National Incubation Center Lahore remains incomplete without The Makers Lab. A suite of 5 state-of-the-art labs established to ensure that every passionate entrepreneur or researcher gains access to facilities that will help them visualise, test, and create innovative products and real-world applications.

The Makers Lab developed by LUMS and Fatima Ventures and managed by NICL, not only facilitates startups in rapidly prototyping their products but also fosters a Makers culture in Pakistan. To date, the Makers Lab team has enabled **2500+** jobs for clients from various industries.



THE FACILITIES OFFERED

The Makers Lab is one of the largest Makers spaces in Pakistan. Through various partnerships, and by the help of generous donors, the Lab now houses all necessary equipment and facilities under one roof, and also offers mechanical design services.



3D PRINTING LAB

Multiple printers for creating 3D prints in various sizes, resolutions, and materials, along with a 3D scanner for capturing object representations.



WOOD LAB

Includes industry-grade power tools and carpentry assistance for crafting required items.



METAL LAB

Complete with an electric welding setup, power tools, drill press, cutters, and lathe machine for shaping metal.



CNC LAB

Equipped with a 4+1 axis CNC machine center and other CNC machines for cutting, shaping, and manufacturing parts and prototypes.



PCB LAB

Enables the design and creation of circuits, and up to two layers PCB manufacturing plated through holes and solder mask.

NICL's partnership with the EU-funded TAKE-UP [Transforming Academic Knowledge to develop Entrepreneurial Universities in Pakistan] project, has also made it part of the FabLabs network.

As part of this collaboration, the University of Saarland, Germany, has provided the Makers Lab with additional machines, including a wood router, CO2 laser, and an MSLA 3D printer.

IN-HOUSE EXPERTISE

Meet the experienced professionals responsible for overseeing the Makers Lab operations:



**Abdul
Ghafoor**

Mr. Abdul Ghafoor has over 20 years of experience in diverse management roles, including project and product management, design, development, production, and implementation of technological solutions and products in electronics, electrical, mechanical, and information technology. He currently serves as the Manager of Technology and Product Development at the Makers Lab.



**Karamat
Ali Mughal**

Mr. Karamat has over 12 years of experience working in the woodwork industry, specifically in furniture manufacturing. He is currently in charge of the Wood Lab at the Makers Lab.



**Arslan
Mirza**

Mr. Arslan has over 15 years of experience in the field of mechanical engineering, with a specialisation in plastic injection molds and dies, CAD and CAM, product development, and reverse engineering. He is responsible for managing the operations of the Makers Lab, which includes the CNC, Metal, and 3D Printing Lab.



**Muhammad
Zaka Ud Din**

Mr. Zaka has 5 years of experience in the field of mechanical engineering, especially in plastic injection molds and dies, CAD and CAM, new product development, and reverse engineering. At the Makers Lab, he is responsible for the CNC, Metal, and 3D Printing Lab Operations.



**H. M.
Shahid**

Mr. Shahid has 14 years of experience in the fields of mechanical, electrical, and electronics engineering. He oversees PCB Lab operations, metal fabrication and 3D printing services.

A RAPID PROTOTYPING SOLUTION FOR STARTUPS



For Maydda Nabeel, Founder of Alif aur Art, an online resource development product that intergrates urdu learning through arts, the Makers Lab not only assisted in bringing her novel idea to life but also offered a sense of safety as a young startup. She explains, The Makers Lab not only safeguards your intellectual property but also fosters intellectual creativity. This peace of mind allows us the freedom to test and be creative with our ideas.



Faaiz Arbab, Founder of the electric wheelchair manufacturing company, AYEKO, found the care taken towards prototypes at the Makers Lab reassuring. He stated, We wanted our product to be export-worthy worldwide. The CNC machine at the Makers Lab proved immensely helpful in crafting

high-quality parts, especially since our products need to be designed with sensitivity for persons with disabilities, leaving no room for error as people's lives are at stake.



Jawad Shah, Founder of Heirloom, praised the Makers Lab for supporting artisans in his venture. He shared, The Lab played a crucial role in our process, from sampling and prototyping to creating 3D models that provided our artisans a clear vision of our desired products. The technical expertise of the staff at the Makers Lab ensures they understand the specific needs of startups, enhancing lead times, speed, and the final product finish. Heirloom is a unique marketplace for artisanal, sustainable, and responsibly produced goods.

PROVIDING SUPPORT TO YOUNG PROBLEM SOLVERS

The Makers Lab facilities have also benefited young students beyond NICL.

Markhor3D, a startup from the Syed Babar Ali School of Science and Engineering at LUMS, successfully produced its first batch of 3D printers with the help of services at the Makers Lab. Sharing his experience, Muhammad Umar Hassan, Founder of Markhor3D, said, “The Makers Lab came in when we had to move to a slightly rigorous production for our 3D printers. It is an essential lab as the first of its kind in Pakistan, and I believe it will only evolve with time. I encourage students, especially those interested in hardware, to pay a visit and avail the services.”

The Makers Lab also proves to be an ideal space for researchers or students. Muhammad Alam, now a Research Assistant at the Centre of Water Informatics and Technology, shares his experience of working with the Makers Lab on developing an Agribot during his thesis. “We contacted the Makers Lab to develop the Agribot for our research. The team collaborated with us, ensuring our ideas and designs were feasible. Their continuous feedback was invaluable. My suggestion to other students would be to explore and experiment with your ideas, as the Makers Lab provides an ideal platform for doing so.”



Taking the Makers Lab Vision Beyond LUMS

The Makers Lab is the heart of NICL's ambition to become a hub of innovation in Pakistan. That's why it welcomes all individuals with a passion for creation. Whether you're an aspiring entrepreneur with an idea to test, a hobbyist looking for a customised gift, or a researcher eager to test a model, the Makers Lab is the place for you.

To learn more about the Makers Lab, please visit

<https://niclahore.lums.edu.pk/Makers-Lab>

NICL also houses four other labs, including an AR/VR lab, a Usability Lab, a biomechanics lab, and the BOP Digital Experience and Innovation Center.



NICL@5

A Journey of Empowering Innovation and Impact

Over the last five years, the National Incubation Center Lahore (NICL) has become a leading incubator and innovation hub, driving change in digital and social entrepreneurship in Pakistan.

NICL has played a crucial role in transforming ideas into market-ready ventures across diverse sectors like agriculture, health, environment, fintech, and education.





Celebrating the Journey, Embracing the Future

As we celebrate NICL's journey, we extend gratitude to our partners, stakeholders, and supporters. Together, we have sown seeds of innovation, nurtured creativity, and reaped transformative impact. The future holds boundless potential as we empower the next wave of innovators and visionaries.

A Legacy of Impact - NICL's Milestones

In just five years, NICL has etched a profound impact on the startup landscape, fostering a thriving community of innovators and changemakers. Here are some of our notable achievements:

- **Co-working Space:** Our co-working space at NICL has flourished, maintaining a remarkable 93% occupancy, a testament to its popularity and vibrant ecosystem.
- **Makers Lab:** Since 2020, more than 2,000 projects have been completed in the Makers Lab, spanning CNC, metal, wood, 3D printing, and printed circuit boards. This maker space has emerged as a hub of creativity and innovation, nurturing ideas into tangible reality.
- **Seed Spark Programme:** NICL's partnership with the Stanford Seed Spark Programme has been instrumental in identifying and supporting promising startups. Out of 32 nominees from three cohort cycles, three startups secured top positions, with another in the top 20.
- **Entrepreneurship 101:** In this Programme, we received a staggering 293 applications, with 26% from talented female entrepreneurs, highlighting the programme's commitment to inclusivity.
- **Foundry Programme:** Being the flagship Programme, NICL's Foundry training has nurtured a total of 291 incubatees, with 93 startups led by visionary female entrepreneurs from cities including Lahore, Islamabad, Karachi, Multan, and Faisalabad.

291

Foundry
incubatees to
date

83

graduates of the Entrepreneurship 101
Programme conducted in collaboration
with the University of Saarland, Germany

32

NICL-nominated startups selected for the
Stanford Seed Spark Programme with three
startups securing positions in the Top 5

93%

occupancy at the
NICL Co-working
space

2000+

projects completed by the
Makers Lab

93

female-led startups

Successful engagements with
major stakeholders in academia,
corporate sector, public sector
and NGOs/International
Development organizations

NEWS FROM THE CENTER



Cohort 10th NICL Investor Summit

From a role-playing mobile strategy game to an AI-based art tech platform; the NICL Investor Summit had it all! The investors heard pitches from eleven graduating startups from our Cohort 10. The pitches represented a whole range of innovative solutions, products, and services.



Welcoming Startups from NICQ

Twelve startups from the National Incubation Center Quetta presented their business ideas to a panel of judges and investors at NICL. Each startup idea aimed to address local challenges through the help of technology, with many entrepreneurs tapping into the region's own produce and resources.



International Women's Day

We had a great time organising an #InternationalWomensDay meetup with women from Cohort 11 and NICL's co-working space. It gave everyone the opportunity to hear each other's experiences as working women, discuss the challenges they face, and the role models that have inspired us!



Bringing back EIC

The NICL Entrepreneurs in Conversation series showcases accomplished entrepreneurs across industries, sharing insights from their impactful journeys. The talks shed light on their entrepreneurial journey to inspire other entrepreneurs and young professionals. Season opener features Mr. Badar Khushnood, Co-founder at Fishry.com, Publishrr, and Bramerz, discussing the importance of MVPs in the startup ecosystem with Ms. Saima Rana, Head of Operations at NICL.



NICL Alumni Meet-up

To reconnect with NICL Alumni, we hosted an evening of catching up and networking at the Center. Alongside NICL team and mentors, we welcomed alumni from the Seed Spark Programme. Startups shared ideas, reconnected with the NICL vision, and enjoyed time with their peers. It was a win-win all around!



TNS Beaconhouse DHA Students Visit NICL

It was an exciting day at NICL as fifth grade students from TNS Beaconhouse DHA visited the Center to learn about the startup ecosystem in Pakistan. They were given a short introduction to NICL and Makers Lab, which was very popular with the young students. To give them a deeper understanding of what entrepreneurship means, a session with NICL alumnus Maydda Nabeel, Founder of Alif aur Art, and Usman Ijaz, Founder of Loading Champions, was organised as well.

HIGHLIGHTS FROM PARTNERSHIPS

The Living Indus Green Startup Youth Champions Award



[As part of the partnership, NICL hosted a panel discussion on how social entrepreneurship can impact climate resilience and environmental sustainability in Pakistan. The panel included Dr. Fazilda Nabeel, Provincial Coordinator, Living Indus Initiative; Dr. Muhammad Abubakr, Director, Centre for Water Informatics and Technology, LUMS; Sharmeen Tariq, Environmental strategist, and entrepreneur; Zillay Mariam, CEO, ISP Environmental Solutions; and Muhammad Bukhari, CEO, Farmdar.]



NICL collaborated with the UNICEF and FAO, to design the 'Living Indus - Green Startup Youth Champions Award.' The grant aimed to empower young startup founders in Pakistan, encouraging innovative solutions for environmental protection, resilience, and adaptability in the face of climate change. From a nationwide competition, a winning team and two runners-up were selected.

The winning team, **Husk Cradle**, will receive a **US\$ 2000 prize** (sponsored by UNICEF) after successfully completing the Foundry Programme. Additionally, the two runners-up secured guaranteed seats in the Foundry Programme and will benefit from mentoring by environmental experts from the UN.



The Indus Entrepreneurs (TiE)

The Lahore Chapter of TiE, in partnership with Sustainable Advisory LLP, ran a year-long grant project, Parwan-e-Nisa, focused on steering Pakistani women towards financial independence, funded by the US State Department.

NICL partnered with TiE to provide the participants office space within the NICL co-working facility, and to mentor the participants through NICL-led workshops. Furthermore, NICL hosted the project's closing event, the Investor Summit, where the top 25 participants pitched their business ideas to an audience of investors and venture capitalists, and dignitaries including the U.S. Consul General in Lahore, Mr. William Makaneole.

Amazon Web Services



Fintech Roundtable: In collaboration with AWS, NICL hosted a Fintech Roundtable where a delegation of the AWS Asia Pacific Team, alongside leaders from the fintech ecosystem, and the Pakistani financial sector, gathered to discuss challenges and opportunities associated within Pakistan's financial services sector. The keynote address was delivered by the President of the Bank of Punjab, Mr. Zafar Masud.



AWS Activate: NICL renewed its partnership with AWS to provide startups with access to cloud credits worth US\$ 5000. Before the formal announcement of this offer, an awareness session for the startup community was conducted at NICL focusing on the growth of startups using AWS services. The Head of Business Development at AWS, Mr. Ghazanfar Iqbal, spoke about the benefits of utilising cloud computing for products and services, particularly through AWS.

Techstars Startup Weekend

NICL co-hosted a three-day action-packed event with the LUMS student society SPADES. Aspiring entrepreneurs came to the NICL facility to revamp their business ideas, attend mentoring sessions by the NICL team and alumni, hear from inspiring startup founders, and work rigorously to prepare an investor-ready business plan. The teams ultimately pitched their ideas to a panel of judges, including Dr. Zartash Uzmi, Associate Professor at LUMS, Mr. Nauman Zaffar, Director of NICL, Mr. Usman Butt, Founder of Repair Desk, and Mr. Badar Khushnood, Founder of Fishry.com, Publishrr, and Bramerz. The winners of the Startup Weekend were the health-tech startup, ROZ.

CIRCLE Women Association

NICL and CIRCLE signed an MoU, initiating a partnership focusing on collaborative research, female entrepreneurial networking, and advocacy for women in tech. CIRCLE is a tech-enabled non-profit organisation working towards expanding women's digital literacy, financial inclusion, and entrepreneurial skills in Pakistan. The partnership aims to contribute to better policymaking around women's technological adoption through evidence-based research and reporting. NICL and CIRCLE's first co-produced research article focuses on barriers to female entrepreneurs' adoption of technology in Pakistan and can be read [here](#).

Paymob

NICL signed an agreement with Paymob, an infrastructure technology enabler providing payment solutions which empowers digital financial service providers through innovative mobile wallet technology. The NICL and Paymob partnership entails a referral agreement, through which startups from the Center's network will be referred to Paymob for various fintech services.

NICL Knowledge Hub

In May, the Center launched the 'NICL Knowledge Hub'- a repository of resources related to the entrepreneurial ecosystem in Pakistan. From videos and interviews to research articles and case studies, this digital space will act as a one-stop window to a variety of knowledge products, educating people about the startup industry, creating awareness, and fostering meaningful engagement. _____



NICL Summer Programme 2023

The second edition of the NICL Summer Programme was launched in June 2023, to continue NICL's efforts in encouraging analytical and computational skills in children.

With our partner **The STEM Educators**, Junior Programming and Game Development were offered again, while Programming with Python was a new addition.

Furthermore, we continued our partnership with **Junior Founder** to teach a two-week module, Entrepreneurship for Kids. This activity-based module walked students through the different phases of launching a business and also introduced students to prototyping at the NICL Makers Lab. Students also experienced the exciting world of virtual reality through the NICL AR/VR Lab.

The NICL Summer Programme in 2023 was capped off with a graduation ceremony, boasting eighty-three young graduates.

ENTREPRENEURIAL COACHING TRAINING AT NICL

The Transforming Academic Knowledge to Develop Entrepreneurial Universities in Pakistan (Take Up Pakistan) funded by the EU. This Project aims to develop an entrepreneurial coaching infrastructure in universities across the country. NICL's Learning and Development team underwent training to become certified entrepreneurial coaches, enhancing their ability to support startups in achieving goals.

Meet our Entrepreneurial Coaches



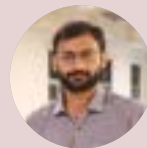
Ms. Saima Rana
Head of Operations, NICL



Ms. Minahil Zia
AM-Community Engagement &
Investor Relations, NICL



Ms. Amina Sheikh
Associate Learning and
Development, NICL



Mr. Arslan Akhtar
Analyst Learning & Development,
NICL



Ms. Mishel Azhar
Analyst Learning & Development,
NICL

Why entrepreneurial coaching is important?

"NICL at LUMS is probably one of the few incubation centers that has a formal learning and development team. What we have realised while working with these entrepreneurs is that they need support and advice throughout their life cycle. It could be support about building up their team, whether to raise investment or bootstrap or whether to change their revenue streams; these are the points where they need specialised entrepreneurial coaches that can guide them in a professional way."

Saima Rana
Head of Operations, NICL

"Entrepreneurial coaching is not a class where you teach students, it is really a one-to-one interaction with an entrepreneur or entrepreneurial team. Coaches will ask you a lot of questions to get a deeper understanding of the specific concern you have as an entrepreneur or startup. Every entrepreneur is so unique, and so are the ideas, which is why we as coaches believe that you're the expert of your environment and of yourself. However, we just try to help you in getting you to solve the problem you are facing."

Theressa Zimmer
Lead, Take Up Project

STARTUP HIGHLIGHTS

KALPAY



Co-founders, Shershah Hassan and Waleed Amjad Islam, were named in Forbes 8th Annual “30 under 30 Asia list” in the Finance and Venture Capital category. Kalpay is a Shariah Aligned Buy Now Pay Later.

AABSHAR



Aabshar, a water-saving company, has helped over 25 mosques save 60% of their water consumption through the installation of their water-saving nozzles retrofitted to water taps.

MILKIFY



Milkify, a fresh buffalo milk delivery service, was selected as one of the top 30 startups worldwide by Kazan OIC Entrepreneurship and were invited to present their startup in Russia.

AYECO



NOW – Naiki On Wheels is a not-for-profit initiative started by AYECo. Pvt. Ltd. – an electronic wheelchair manufacturer. Under this initiative 35 underprivileged and deserving persons have been provided with state-of-the-art sports and electric wheelchairs.



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