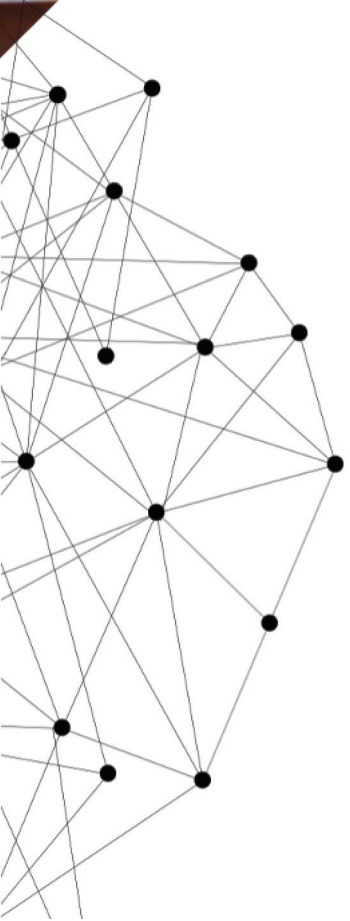


DIGITAL PAKISTAN CYBER SECURITY HACKATHON 2023



Ministry of IT & Telecom
DIGITAL PAKISTAN

Powered By:

Ignite
NATIONAL TECHNOLOGY FUND

ignite.org.pk



As we commemorate our third consecutive annual Hackathon, we remain resolute in our dedication to advancing the vision of a Digital Pakistan.



Solicitation, Engagement & Evaluation Department
Ignite National Technology Fund

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Ignite has been driving cybersecurity excellence with hands-on Training Workshops and exhilarating Cybersecurity Hackathon Competitions across Pakistan for the past two years!

These events have been a game-changer for IT students and learners, providing a golden opportunity to supercharge their cybersecurity skills, put their capabilities to the test, and compete for tantalizing prizes and rewards.

For the first time in the history, Pakistani teams participated in international cybersecurity event 'Black Hat MEA', held at Riyadh, Saudi Arabia. These talented teams have proven their mettle and all set to represent Pakistan on the global stage.



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BACKGROUND

Despite the growing space and sophistication of cyber threats, there are not enough people equipped with the appropriate knowledge, skills, and abilities to protect information technology for strategic advantage. The global risk report 2023, World Economic Forum (WEF) calls cybersecurity one of the top ten key threats of the immediate and next decade.

Digitization is driving growth, creating jobs, increasing human well-being, and force-multiplying defense capability around the world and in Pakistan, whether it is Careem providing jobs and safe transport to women, Telenor mAgri increasing farmer incomes, Siemens controllers modulating electricity generation. Yet all these current and future tech advances are threatened by cyber-attacks, willful or unintentional, that degrade or even destroy digital infrastructure as well as physical and biological assets that may be associated with it are easy targets because they often lack resources and expertise to defend themselves. One effective approach is to create a competitive learning environment, enabling professionals to gain hands-on experience and compete in the dynamic field of cybersecurity.

The Digital Pakistan Cybersecurity Hackathon represents a pivotal and dynamic event at the forefront of Pakistan's digital landscape. In an era defined by unprecedented technological advancements and an increasingly interconnected world, the need for robust cybersecurity measures has never been more critical.



National Hackathon is such an energetic event which is bringing our young cyber warriors in limelight to produce high octane fuel required for any cyber warfare to eventually become cyber power country.

Mehzad Sahar, Group Head Infosec, Engro Corporation



At Cybersecurity Hackathon, participants from diverse backgrounds engages in workshops, networking, and hands-on experiences, all with the shared goal of enhancing cybersecurity awareness, skills, and readiness.

This hackathon serves as a beacon for cybersecurity enthusiasts, professionals, and innovators, who come together to showcase their expertise, problem-solving skills, and creativity in the realm of digital security. It provides a platform for participants to collaboratively tackle pressing cyber threats, develop cutting-edge solutions, and safeguard the digital infrastructure of Pakistan and beyond. As a testament to the nation's commitment to digital transformation and safeguarding its digital future, the Digital Pakistan Cybersecurity Hackathon embodies innovation, collaboration, and the pursuit of a safer and more secure digital landscape.

BUILDING ON SUCCESS: A LOOK BACK AT 2021 & 2022

Ignite has been driving cybersecurity excellence with hands-on Training Workshops and exhilarating Cybersecurity Hackathon Competitions across Pakistan for the past two years.






These events have been a game-changer for IT students and learners, providing a golden opportunity to supercharge their cybersecurity skills, put their capabilities to the test, and compete for tantalizing prizes and rewards.

THE HACKATHON 2021

Ignite, have launched Pakistan's first nationwide Digital Pakistan Cybersecurity Hackathon in the year 2021 which was aimed in improving cybersecurity readiness, protection, and incident response capabilities of the country by conducting cyber drills at the national level.

The Hackathon was a capture the flag (CTF) contest for cybersecurity experts organized in the form of a game, in which the participants solved computer security problems. The competition had attracted a diverse range of participants, including students, enthusiasts, and professionals.

There were 3 preliminary rounds in Islamabad, Lahore, and Karachi. Teams were competed in five categories including application exploitation, mobile device exploitation, network attacks and exploitation, operating systems exploitation, and speed programming. It was a timed competition in which the fastest responses win the round. Each problem solved earned them points to move closer to winning the round and moving forward towards grand finale.

COMPETITION CATEGORIES:		QUALIFIED TEAMS		
		KARACHI	LAHORE	ISLAMABAD
	System Application Exploitation	23	18	50
	Mobile Device & Apps Exploitation	22	24	61
	Operating Systems Exploitation	28	21	47
	Network Attacks & Exploitation	46	27	89
	Speed Programming	26	46	50

The event helped in identifying the problem areas as well as experts to develop their skill sets further and solve the problems of cybersecurity area. The event also comprised of hands-on workshops, talks, panel discussions, quiz competition, display of products and services offered by the industry. Talks and presentations were given by prominent experts from industry and academia.

A total of 1176 teams registered for the hackathon including university students, freelancers, professionals, and hackers from all over the country out of which 475 teams were shortlisted for qualifier rounds in Karachi, Lahore, and Islamabad followed by the final competition in Islamabad. Cash awards of Rs. 6 million were given

to the top 3 teams in 5 categories in a grand finale at Islamabad where the President of Pakistan, Dr. Arif Alvi, gave awards to the winners of the hackathon in different categories.

SYSTEM APPLICATION EXPLOITATION	MOBILE DEVICE & APPS EXPLOITATION	OPERATING SYSTEMS EXPLOITATION	NETWORK ATTACKS & EXPLOITATION	SPEED PROGRAMMING
Lexicans	TheNorthCodes	\$udoers	vap0r	Spartans
SafeCottage	OxNinjas	Local Host	AirOverFlow	Sushi
Shell Shockers	Lexicans	We need control	Local Host	AirOverFlow

Winning Teams of 2021



Winning Teams of 2021 with President Dr. Arif Alvi

Achievements:



- ▶ Enhanced awareness amongst cybersecurity workforce to understand strengths and weaknesses in knowledge, skills and abilities
- ▶ Provided opportunity to work cooperatively with others to obtain common goals in a game situation
- ▶ Promoted the literacy and competencies in cybersecurity area
- ▶ Provided opportunity to identify talented pool of resources
- ▶ Helped in preparing teams to compete in International Competitions



- ▶ **1176** teams registered for the hackathon from all over the country including Gilgit, Peshawar, Abbottabad, Mardan, Haripur, Swabi, Kamra, Wah Cantt, Rawalpindi, Islamabad, Jhelum, Wazirabad, Gujranwala, Lahore, Bahawalnagar, Multan, Khanewal, Nawabshah, Hyderabad, Karachi, Quetta etc.
- ▶ **475** teams were shortlisted for qualifying rounds
- ▶ Top 3 teams in 5 categories qualified from Karachi, Lahore, and Islamabad competed in the final round



- ▶ **1200+** talented resources identified
- ▶ **80%** impact on jobs' creation and promotion



- ▶ **15+** Talks/Presentations and Workshops by Industry Experts
- ▶ **800+** people joined for workshops, talks and panel discussions



- ▶ **23** Teams from different universities participated in Quiz Competitions

THE HACKATHON 2022

The Hackathon 2021 proved to be a great place to help start a career in Cybersecurity or raise an industry profile and eventually helps recruiters and managers to spot budding talent and headhunt existing professionals. In 2022, the second hackathon was held following its overwhelming success.

Cybersecurity training workshops were added to the hackathon in accordance with feedback from the stakeholders. A series of two-days physical as well as online hands-on workshops were held in 10 major cities of Pakistan. The training covered major concepts along with a live environment for solving the related exercises.

A total of 2,280 participants were registered for the training workshops including experts from banks, ICT companies, students, and researchers from leading universities. Following an online test, 826 participants were selected and 612 of them attended the hands-on training workshops.

Feedback:

- ▶ *Training gave us the exposure of introduction and in-depth knowledge of the field. It has given us many future directions in which we can work and polish our skills.*
Danish Hafeez, Sukkur
- ▶ *This was one of the great trainings I have attended so far, in terms of the contents and the instructors and the presentations of the contents. All hands-on is very helpful and the training add so values to my knowledge regarding cyber security. The best thing about the training was that the staff was cooperative and the content was updated.*
Shah Muhammad, Sukkur
- ▶ *Getting knowledge and experience-based training, really added to polishing the skills and knowledge in a systematic way. The whole idea of bringing it to Peshawar and creating an ecosystem of cybersecurity by professionals is the most liked thing.*
Muhammad Asif Shams, Peshawar
- ▶ *Although I'm not a complete beginner but still the event was constructive and learned a few more tools that could potentially help me enhance my skills. I believe the gathering of professionals was something that I liked the most.*
Jawad Ali, Peshawar



The competition was held in Islamabad, Karachi, Lahore, Peshawar and Quetta. A large number of teams consisting of students and professionals related to cyber security area were registered in the competition.

After a marathon of qualifier rounds, the final round was held on 17th December 2022 at Islamabad. The top teams from Quetta, Peshawar, Karachi, Lahore and Islamabad were put into final round of the competition. The participating teams solved computer security problems by capturing (attack/bring down) or defending computer systems and scoring most points for winning the challenge. Cash awards of Rs. 6 million were given to the top 3 teams.

In addition, there were talks, panel discussions, interactive workshops, quiz competition, and an exhibit of the industry's goods and services related to cybersecurity. Prominent professionals from academia and business gave talks and presentations.



*Winning Teams of 2022, 1: Sudoers | 2: Lexicans | 3: SafeCottage
with Prime Minister Mr. Shahbaz Sharif*

Achievements:

- ▶ **903** teams registered for the hackathon from all over the country
- ▶ **315** teams were shortlisted for qualifying rounds
- ▶ **800+** talented resources identified
- ▶ **80%** impact on jobs' creation and promotion
- ▶ **600+** participants from Abbottabad, Quetta, Peshawar, Multan, Sukkur, Lahore, Karachi, Islamabad attended hands-on training
- ▶ **10+** Talks/Presentations and Workshops by Industry Experts
- ▶ **1000+** people joined for workshops, talks and panel discussions
- ▶ **18** Teams from different universities participated in Quiz Competitions

THE 2023 CHALLENGE

The inception of the cybersecurity hackathon event marks a crucial step in Pakistan's journey to address the growing need for cybersecurity professionals. Recognizing the global shortage and the increasing significance of cybersecurity, this initiative by Ignite aims to create a competitive environment where individuals, from hobbyists to students, can hone their skills, tackle real-world challenges, and contribute to the nation's cyber resilience. By fostering a culture of innovation and preparedness, this hackathon event not only offers recognition and rewards but also plays a vital role in shaping the future of cybersecurity in Pakistan.



Objectives:

Objectives of cybersecurity competitions or cyber drills as described by ITU (International Telecommunication Union) are as follows:

- ▶ Enhancing cybersecurity capacity and capabilities through regional collaborations & cooperation;
- ▶ Enhancing the awareness, the capability of countries to participate, to contribute to the development & deployment of a strategy for defeating a cyber threat;
- ▶ Strengthening international cooperation between member states to ensure continued collective efforts against cyber threats;
- ▶ Enhancing member states' incident response capabilities and communication;
- ▶ Assisting member states to develop and implement operational procedures to respond better to various cyber incidents, identify improvements for future planning and CIRT processes and operational procedures.

Benefits:

This competition is beneficial to security researchers and academics who can use the attack data and network traffic generated during competitions as case studies to help model, predict and prevent real-world security incidents.

- ▶ Career kickstart and industry recognition
- ▶ Social networking amidst fierce competition
- ▶ National-level recognition and opportunities
- ▶ Professional talent identification and recruitment
- ▶ Knowledge sharing and goal alignment

Hands-on Training Workshops:

Cybersecurity training is crucial in today’s digital age due to the increasing number of cyber threats, the importance of protecting personal information, enhancing digital literacy, preventing cyberbullying, preparing students for future careers, ensuring national security, protecting educational institutions, and promoting ethical hacking. Students need to understand the global nature of cyber threats and the importance of secure online practices. Cybersecurity training also helps students understand the legal and ethical aspects of cybersecurity, ensuring compliance with laws and regulations. By providing students with the knowledge and skills to protect themselves and others, they can contribute to the development of professionals who can actively work to secure digital systems.

The Hackathon 2022 included eight two-days hands-on workshops in major cities of Pakistan. An overwhelming response was received and more than 600 participants attended the sessions. Keeping in view the interest and enthusiasm of the participants, this year, 5-days intensive hands-on workshops were conducted in 10 cities across Pakistan.

Registration:

The registration of individuals/teams for training workshops and regional hackathons was announced as per following schedule.

	Training Workshops	Regional Hackathons
Opened:	September 1, 2023	September 1, 2023
Closed:	October 30, 2023	September 30, 2023



Posted on Media Channels

Awards and Opportunities:

Subscription coupons for international trainings worth PKR 6 million were awarded to top performers. These coupons represent an opportunity for competition winners to access high-quality international training programs related to cybersecurity. They are essentially vouchers or codes that grant the recipients access to specific online courses, workshops, or training platforms that offer in-depth knowledge and expertise in various aspects of cybersecurity.



Benefits: *International Training | Skill Enhancement | Lifetime Learning*



PARTICIPATION IN INTERNATIONAL COMPETITIONS

Benefits: *Global Exposure | Career Development | Promotion of Cybersecurity Culture*

Ignite, in its commitment to fostering cybersecurity talent and innovation, has allocated a substantial amount as cash prizes for the competition. These cash prizes are a tangible recognition of the exceptional skills and achievements of the participants in the cybersecurity challenge.



Awards: *PKR 1.5 million* *PKR 1.0 million* *PKR 0.5 million*

Our Partners:

We are extremely proud and grateful to introduce our esteemed partners for the Cybersecurity Hackathon 2023. These organizations represent the very backbone of our event, providing invaluable support, expertise, and resources to make this event a resounding success. Together, we are united in our mission to inspire, challenge, and empower the brightest minds in the cybersecurity field. Our partners bring a wealth of knowledge, cutting-edge technology, and a shared dedication to addressing the ever-evolving challenges of the digital age. Their collaboration exemplifies the spirit of unity and innovation that drives the Cybersecurity Hackathon and ensures that it remains at the forefront of cyber defense and resilience. We extend our heartfelt thanks to our partners for their indispensable contributions to this exciting and essential event.



The Team:

The success of any hackathon depends on meticulous planning. It’s evident that Ignite team put in the time and effort to create a structured and well-executed event, ensuring everything ran smoothly.

By providing opportunities for networking and fostering a sense of community among participants, our team inspired individuals to interact, learn, and exchange experiences. One of the key indicators of the event’s success is our team’s ability to secure and maintain strong relationships with sponsors and partners.

Overall, organizing a successful Digital Pakistan Cybersecurity Hackathon in 2023 requires dedication, hard work, and a commitment to advancing cybersecurity knowledge and practices. Our team’s efforts in this regard are highly recognized and commended for contributing to a safer digital environment.



From left to right: Mansoor Gillani (SEED) | Aurangzeb Rao (IT) | Nadeem Nasir (Publication) | Adeel A Shaikh (Corporate Affairs) | Asim Shahryar Hussain (CEO) | Idrees Awan (SEED) | Sohail Tanveer (SEED) | Faizan Mehmood (Publication) | Rizwan Haider (IT)

THE LAUNCH

The event was launched on September 17, 2023 through print and electronic media. The advertisement was printed in national dailies as well as on all social media channels of Ignite.

Ministry of IT & Telecom
DIGITAL PAKISTAN

Powered by:
Ignite
NATIONAL TECHNOLOGY FUND

Digital Pakistan Cybersecurity Hackathon 2023

Pakistan's 3rd Nationwide Cybersecurity Training Workshops and Hackathon

Ignite has launched a National Level Cybersecurity Competition to give hobbyists, hackers, and students a chance to become part of the exciting challenge to earn accolades, win prizes, and build their knowledge base.

TRAINING WORKSHOPS **REGISTER BY:** 30th September, 2023

▶ Karachi ▶ Sukkur ▶ Lahore ▶ Multan ▶ Peshawar ▶ Quetta ▶ Islamabad

REGIONAL HACKATHONS **REGISTER BY:** 30th October, 2023

▶ Karachi ▶ Lahore ▶ Multan ▶ Peshawar ▶ Quetta ▶ Islamabad

Introducing "Blue Teaming"

AWARDS:

- International Training Coupons
Rs. 6 Million
- Sponsorship for International Competitions
- Hackathon Cash Awards
Rs. 3 Million

GET REGISTERED: <https://cyberhackathon.pk>

FOLLOW US: [@cybersecure_pk](https://twitter.com/cybersecure_pk) [/cybersecurepk](https://facebook.com/cybersecurepk)

www.ignite.org.pk | [/igniteNTF](https://facebook.com/igniteNTF) | [@igniteNTF](https://twitter.com/igniteNTF) | [/company/ignitentf](https://linkedin.com/company/ignitentf) | [/ignite.NTF](https://instagram.com/ignite.NTF) | [/ignitentf](https://youtube.com/ignitentf)

Advertised in national dailies on September 17, 2023

HANDS-ON TRAINING WORKSHOPS

There is an appetite in the market due to the high demand for cybersecurity professionals. In order to entertain more participants and comprehensive training, Ignite had planned community-based training in 2023.

A baseline assessment of the individual's understanding of security principles, networking concepts, operating systems etc. was measured through online test. Subsequently, a plan including a mix of classroom training, hands-on labs, and self-paced study was developed.

Ten (10) training workshops were conducted between October 4, 2023, and November 5, 2023, with the objective of enhancing expertise and skills of participants in cyber security. Each session lasted for five days. The growing significance of cybersecurity in Pakistan's digital ecosystem was highlighted by this training program.



Classroom training involved a structured learning environment with a certified instructor, where individuals learned about the concepts and principles of various areas. Hands-on labs and real-world case studies provided practical experience in identifying and exploiting vulnerabilities.

During the five days of the training workshop, participants explored a wide range of cybersecurity areas including the following:

- ▶ Security fundamentals
- ▶ Web application security
- ▶ Network security
- ▶ Cloud security
- ▶ Cryptography
- ▶ IoT & OT hacking
- ▶ Penetration testing methodologies
- ▶ Wireless network security
- ▶ Mobile device security
- ▶ Social engineering
- ▶ Incident response
- ▶ Malware threats & analysis
- ▶ Linux Exploitation
- ▶ Incident response

The training partner was selected to lead the training sessions by means of competitive bidding against a "Request for Proposal (RFP)" duly published by Ignite and PPRA.



Over the past two years, these events have become a consistent beacon of opportunity for IT students and learners across Pakistan.

Dr. Shehzad Khalid, Principal of Bahria Institute of Engineering and Applied Sciences at Bahria University Islamabad



Locations:

Previously, training workshops were conducted in major cities only. The popularity and success of these trainings led to its expansion to other cities in KPK and AJK. A series of hands-on training workshops were held in following cities of Pakistan.



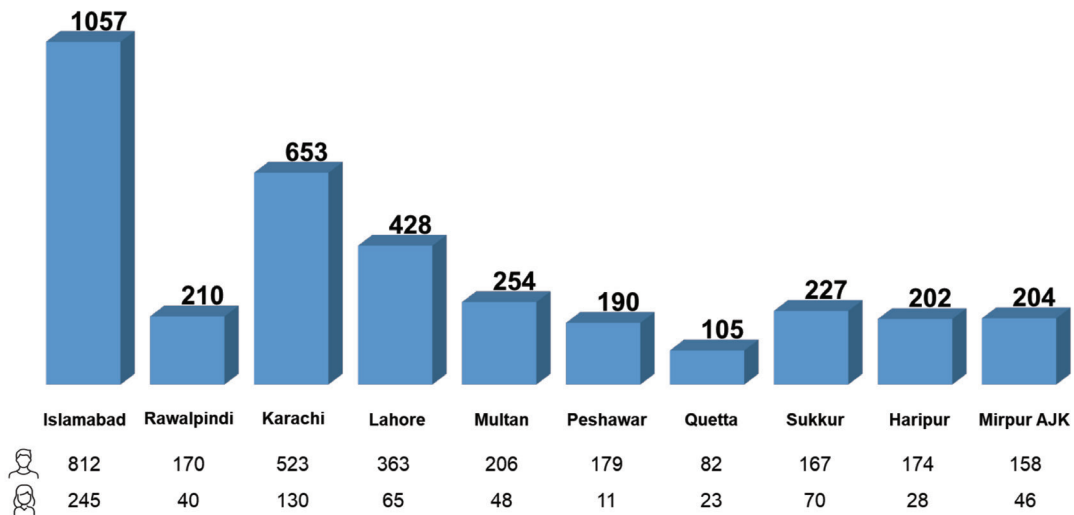
Karachi | Sukkur | Lahore | Multan | Peshawar

Quetta | Islamabad | Haripur | Mirpur AJK | Rawalpindi

Registration:

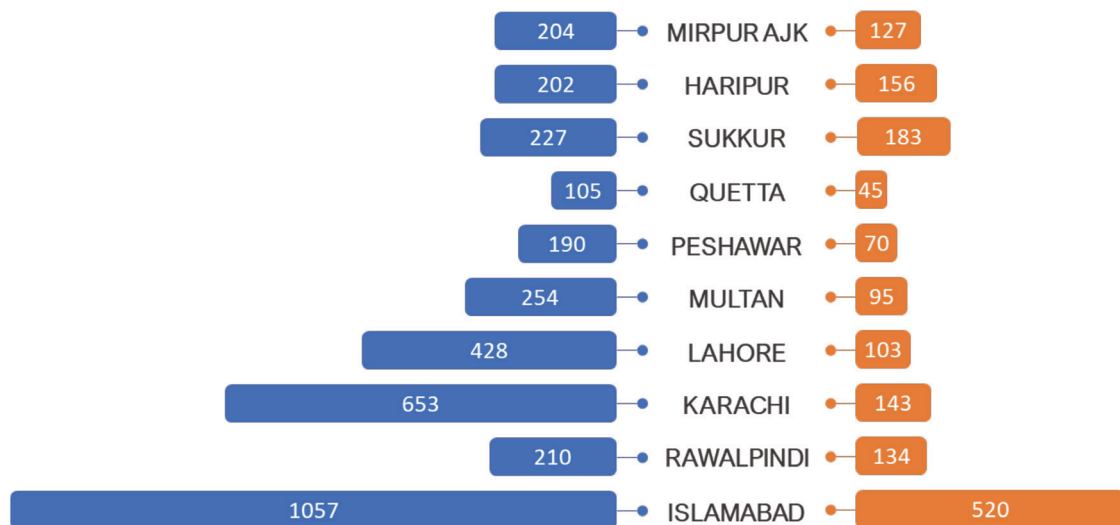
The registration for the hands-on training workshops was opened on September 1, 2023 and was closed on September 30, 2023. The hobbyists, hackers, students and entry level professionals were invited to register for hands-on training workshops across the country. The filtering round was held online on October 8, 2023.

A total of 2,280 participants showed interest and registered for the training workshops including students, startup teams, and researchers from leading universities.



Training Registrations 2023 Gender wise Distribution

Our eager participants took part in thorough training sessions that would prepare them for success in the cybersecurity industry. Under the guidance of business leaders, they committed to a life-changing educational journey where they honed critical digital competencies for the future.



Training Registrations vs Attendance

Our Prestigious Partners:

	<p>COMSATS University, Islamabad Facilitation in training venue, regional and final competition, and allied services</p>
	<p>Bahria University, Islamabad Facilitation in training venue, and allied services</p>
	<p>Military College of Signals, NUST, Rawalpindi Facilitation in training venue, and allied services</p>
	<p>NED University of Engineering & Technology, Karachi Facilitation in training venue, and allied services</p>
	<p>Al-Khwarizmi Institute of Computer Science (KICS), UET, Lahore Facilitation in training venue, and allied services</p>

	<p>MNS University of Engineering & Technology, Multan Facilitation in training venue, regional competition and allied services</p>
	<p>Institute of Management Sciences (IMSciences), Peshawar Facilitation in training venue, regional competition and allied services</p>
	<p>National Incubation Center (NIC), Quetta Facilitation in training venue, regional competition and allied services</p>
	<p>National Incubation Center (NIC), Lahore Facilitation in training venue and allied services</p>
	<p>IBA Sukkur University, Sukkur Facilitation in training venue and allied services</p>
	<p>Pak-Austria Fachhochschule Institute of Applied Sciences & Technology, Haripur Facilitation in training venue and allied services</p>
	<p>Mirpur University of Science & Technology (MUST), Mirpur AJK Facilitation in training venue and allied services</p>

TRAINING WORKSHOP AT QUETTA

Students of Balochistan, despite facing unique challenges, demonstrate resilience and determination. Their diverse community reflects the region's rich cultural heritage, contributing to a dynamic educational landscape. They pursue education as a means of empowerment, exploring emerging fields and pursuing progress. Educational institutions nurture these talents, fostering cultural identity and equipping students for global success.



National Incubation Center, Quetta



October 4 – 8, 2023



45 of the 105 registered candidates showed up for the training workshop.

National Incubation Center hosted the workshop where our enthusiastic participants from Quetta region were fully engaged in interactive sessions, eagerly honing the skills demanded by our digital future. Collectively propelling the mission for a fortified Digital Pakistan.



TRAINING WORKSHOP AT PESHAWAR

Despite occasional security challenges, students of Peshawar are a vibrant and diverse academic community. With a rich history and cultural heritage, the city attracts students from various backgrounds, fostering an environment of academic excellence and cultural exchange. Their energy and dedication shape the educational landscape of the KP province, promoting optimism for a brighter future.



Institute of Management Sciences (IMSciences), Peshawar

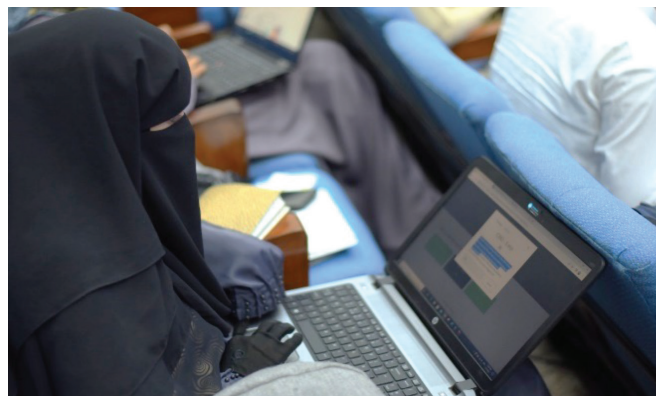


October 4 – 8, 2023



Out of the 190 candidates registered for training, 70 attended the training workshop.

The session was held at the prestigious Institute of Management Sciences, where excited participants dove headfirst into interactive sessions in an effort to grasp the skills that our digital future would require. Under the guidance of business leaders, they committed to a life-changing educational journey where they honed critical digital competencies for the future.



TRAINING WORKSHOP AT RAWALPINDI

Rawalpindi, a vibrant city in Pakistan, has a diverse academic community with diverse institutions catering to various disciplines. The students are enthusiastic, active, and civically responsible, benefiting from cultural influences and proximity to Islamabad. Educational institutions shape students' character, prepare them for leadership roles, and instill pride in their city's cultural and historical legacy.



Military College of Signals, NUST, Rawalpindi



October 11 – 15, 2023



134 of the 210 registered candidates showed up for the training workshop.

Witness the thrilling images from the workshop held at Rawalpindi's esteemed Military College of Signals. Devoted attendees were completely absorbed in lively workshops, refining their abilities for the digital age.



TRAINING WORKSHOP AT ISLAMABAD

Islamabad's students are a diverse and motivated academic community, embracing a curriculum that spans traditional and contemporary fields. With a cosmopolitan atmosphere and modern infrastructure, they strive for excellence in academics and contribute to the nation's progress. They engage in extracurricular activities, cultural events, and community service, shaping the city's identity as an educational hub.



Bahria University,
Islamabad



October 11 – 15, 2023



Out of 1057 candidates registered from Islamabad, 520 of them attended the training workshop.

Everyone assembled at Bahria University Islamabad in order to start this incredible adventure. Our enthusiastic attendees were fully absorbed in stimulating workshops, carefully honing their abilities for the digital age. While our talented instructors graciously shared their knowledge and perspectives on the expanding field and pressing needs of cybersecurity.



TRAINING WORKSHOP AT KARACHI

Having diverse backgrounds, Karachi's students are a vibrant academic community in Pakistan's economic and cultural hub. They navigate a competitive academic environment while embracing the city's multicultural atmosphere. Their resilience and ambition contribute to the city's thriving industries and contribute to its status as a center for education, commerce, and cultural exchange.



NED University, Karachi



October 18 – 22, 2023



143 of the 653 registered candidates showed up for the training workshop.

The esteemed NED University of Engineering and Technology in Karachi hosted this intense session, where enthusiastic participants came together to strengthen Pakistan's digital defense. Our passionate attendees were deep in concentration during immersive workshops, polishing their abilities for the future digital environment.



TRAINING WORKSHOP AT MULTAN

Multan, a city in Punjab province, is home to a diverse academic community of students who blend traditional values with modern education. These students are determined to contribute to the community and regional development. The city's educational institutions nurture these aspirations, providing a platform for personal growth and contributing to its cultural and historical legacy.



MNS University of Agriculture, Multan



October 18 – 22, 2023



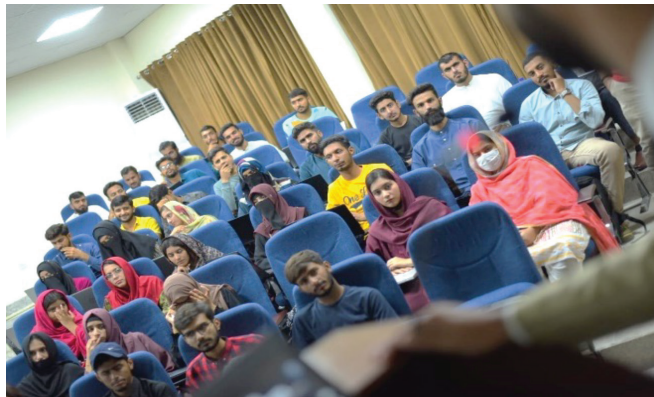
Out of 254 candidates registered from Multan region, 95 of them attended the training workshop.

MNS University of Agriculture hosted the training session where our passionate participants were deeply immersed in dynamic sessions, keenly refining skills for our digital tomorrow.



Nothing leads to nothing, unless it is about cybersecurity where doing nothing leads to cyber incident.

Dr. Johannes Drooghaag



TRAINING WORKSHOP AT SUKKUR

Sukkur, renowned for its historical landmarks and Lansdowne Bridge, offers limited educational institutions. The diverse student body reflects the city's fusion of customs, aiming to address social concerns and contribute to regional development. Sukkur's students symbolize Pakistan's potential for growth and creativity.



IBA Sukkur University,
Sukkur



October 25 – 29, 2023



183 of the 227
registered candidates
showed up for the
training workshop.

Our eager participants took part in thorough training sessions that would prepare them for success in the cybersecurity industry.



Ignite is developing a cybersecurity ecosystem In Pakistan. Professionals and students alike should take advantage of this wonderful opportunity to learn and develop their abilities in thwarting cyberthreats.

*Mr. Qazi Abdul Wahid, Director
CDC at Sukkur IBA University*



TRAINING WORKSHOP AT LAHORE

Pakistan's cultural center, Lahore, is home to a varied academic community that combines modern and traditional perspectives. Pupils from all backgrounds engage in a range of extracurricular and academic pursuits with the aim of contributing to the creative and intellectual heritage of the city. The educational institutions in Lahore mold students' academic paths by encouraging originality, critical thinking, and social responsibility.



Al-Khwarizmi Institute of Computer Science (KICS), UET, Lahore



October 25 – 29, 2023



103 of the 428 registered candidates showed up for the training workshop.



I want to commend and thank Ignite for their continued efforts, which include exciting hackathon challenges and hands-on cybersecurity training workshops which have made their mark across Pakistan, offering an invaluable platform providing a priceless opportunity for IT learners and students to enhance their cybersecurity knowledge.
Dr. Waqar Mehmood, Director at KICS, UET, Lahore



TRAINING WORKSHOP AT HARIPUR

Haripur, a town in Khyber Pakhtunkhwa, Pakistan, is home to a vibrant academic community of students. They reflect the city's tranquility and cultural heritage, blending tradition with a thirst for knowledge. They exhibit perseverance and commitment to their studies in spite of obstacles. Their determination and community-focused aspirations contribute to the town's academic vibrancy and represent the potential for progress in the region.



Pak-Austria
Fachhochschule Institute
of Applied Sciences &
Technology
Haripur, KPK



November 1 – 5, 2023



A total of 202 candidates
registered from Haripur
and 156 of them
attended the training
workshop.

Pak Austria Fachhochschule,
Haripur, KPK graciously hosted
the training session where
enthusiastic participants were
fully engrossed in intensive
sessions, diligently preparing
themselves for the ever-evolving
digital landscape.



TRAINING WORKSHOP AT MIRPUR (AJK)

The Himalayan town of Mirpur is home to a wide range of educational institutions catering to a heterogeneous population of students. These students reflect the region's traditions and contemporary aspirations, contributing to the town's academic vibrancy and showcasing potential for progress in Azad Jammu and Kashmir.



Mirpur University of Science & Technology (MUST), Mirpur AJK



November 1 – 5, 2023



127 of the 204 registered candidates showed up for the training workshop.

The intensive workshop took place at the renowned Mirpur University of Science and Technology where our passionate individuals came together to refine their skills for our digital tomorrow.



Information is the oxygen of modern age. It seeps through the walls topped by barbed wire, it wafts across the electrical borders.

Ronald Reagan



CAPACITY BUILDING OF GOVERNMENT EMPLOYEES

Resilient digital infrastructure development starts with a knowledge-based economy. Trained individuals possessing the necessary knowledge and abilities are vital for safeguarding this infrastructure, as they can adapt to evolving threats and technologies. Thus, for the long-term stability and prosperity of a knowledge-based economy, investment in education and training in the domains of information technology and digital security is vital.

An exclusive cybersecurity hands-on training workshop for Government officials was scheduled from December 19-21, 2023 at COMSATS University Islamabad. This specialized program was designed exclusively for government officials, giving them a deep dive into cybersecurity knowledge to improve their proficiency and safeguard the security of Digital Pakistan.

Participants for the training workshop were nominated by the Ministry of Information Technology and Telecommunications, which aims to improve cybersecurity knowledge and capabilities among professionals working with ministries and divisions. The training was conducted in collaboration with Trillium Information Security Systems, ECS Innovation, and Comsats University Islamabad. The workshop was attended by 83 individuals representing different government organizations; a few of them listed below.

- Electronic Certification Accreditation Council	- Ministry of Science & Technology
- Federal Directorate of Education	- National Database & Registration Authority
- Federal Investigation Agency	- National Electric Power Regulatory Authority
- Finance Division	- National Heritage & Culture Division
- Ministry of Aviation	- National Information Technology Board
- Ministry of Defence	- National Security Division
- Ministry of Energy Power Division	- National Telecommunication & Information Technology Security Board
- Ministry of Finance	- National Telecommunications Corporation
- Ministry of Human Rights	- Pak-Arab Refinery Limited
- Ministry of Industries & Production	- Pakistan Agricultural Storage & Services Corporation Ltd.
- Ministry of Federal Education & Professional Training	- Pakistan Agricultural Research Council
- Ministry of IT & Telecommunication	- Pakistan Civil Aviation Authority
- Ministry of Law & Justice	- Pakistan Meteorological Department
- Ministry of Poverty Alleviation & Social Safety	- Pakistan Museum of Natural History
- Ministry of Religious Affairs & Interfaith Harmony	- Prime Minister's Office
- Ministry of National Food Security & Research	- Pakistan Scientific & Technological Information Center
- Ministry of National Health Services, Regulations & Coordination	- Pakistan Telecommunication Authority
	- Securities & Exchange Commission of Pakistan
- Ministry of Planning Development & Special Initiatives	- State Bank of Pakistan

As an expert from the industry, Dr. Fateh ud Din B. Mehmood, CEO of Lunesys, was specially invited to give a talk on the topic titled “Is Open Source Secure?”. He fervently promoted open source as the means of strengthening Pakistan’s IT industry, stressing that it’s not only safe but also a major economic force that saves billions of rupees when compared to closed-source alternatives.

Feedback:

I extend my sincere appreciation for the well-organized Cyber Security Workshop for government officials. Ignite’s efforts in delivering a valuable and relevant workshop have been commendable.

The expertise of the trainers and the comprehensive coverage of cyber security topics were particularly noteworthy.

I recommend and encourage Ignite to conduct practical workshops to fortify government institutions against cyber threats.

Thank you for your commitment to enhancing cybersecurity awareness, and I anticipate more successful initiatives in the future please.

*Abdul Razzaq
Network Administrator
Pakistan Agricultural Research Council*

The training was really informative and well organised with professional resource persons.

*Amanullah
Director MIS
Pakistan Agricultural Research Council*

I would like to thank you for this wonderful session. No doubt cyber security is a very big industry but managed well in very short period of time.

*Hafiz Tahir
Network Administrator
Ministry of Aviation*

I want to express my sincere appreciation for the recent cybersecurity workshop. The joint effort showcased a commitment to addressing digital threats. The practical insights and various viewpoints provided valuable knowledge. These initiatives play a crucial role in the improvement of the cyber skills of government employees. Thank you for organizing this impactful event.

*Zulfiqar Ali
Assistant Director,
Cyber Crime.
FIA HQ*

I would like to express my appreciation for the recent 3-day Cyber Security Workshop. The expertise of the presenters, comprehensive coverage of topics, and interactive approach made it an informative and engaging learning experience. However, providing comprehensive workshop materials and allocating more time for practical exercises would further enhance the overall value of the workshop.

Thank you for organizing this high-quality workshop, and I look forward to future opportunities to expand my knowledge in the field of cyber security.

*Naqash Ali,
National Security Division*



Glimpses of Training:





THE HACKATHON 2023

Ignite has launched third National level Cybersecurity Competition to give hobbyists, hackers, students a chance to become part of the exciting challenge to earn accolades, win prizes, and build their knowledge base.

The competition has attracted a diverse range of participants, including students, enthusiasts, and professionals. The event also included panel discussions, speeches, quiz competition, and a showcase of the industry's products and services. Prominent professionals from academia and business gave talks and presentations.

Methodology:

The competition was managed in a sequential flow where the challenges were designed and developed based on real scenarios and real-life attacks. After completion of testing scenarios, challenges were deployed to Cyber Talent platform (<https://patch.com.pk>) for execution.

The challenges were divided into two major categories, Red Team and Blue Team. Red Team challenges refer to the offensive security challenges where the player assumes the role of a hacker and must attack the given application in order to find security flaws. In the meantime, the player taking part in the Blue Team challenges must pretend to be an information security engineer defending against a real, automated attack while positioned inside a corporate environment.

Each competition round contained 2x APTs (Advanced Persistence Technique) for players. Each attack round consisted of two attack waves with time duration of 2 hours each wave. The end goal of the competition is to uncover maximum TTPs (Tactics, Techniques, and Procedures) of APT.



The significance of events like these cannot be overstated; they are pivotal in fostering innovation and collaboration within the dynamic field of cybersecurity.

Dr. Umer Saif, Caretaker Minister for IT & Telecom



Technical Partner:

Following a competitive bidding process, Trillium Information Security System, Islamabad was awarded the project for the year 2023. For the event to be executed successfully, Trillium was assigned the following tasks.

- Arrangement of all hardware/UPS
- Software/platform to conduct challenges, scoring, live activities, etc.
- End points LAN connectivity
- Internet connection / bandwidth
- Development and testing of challenges for Red teams and Blue teams
- Execution of event rounds i.e., qualification round, regional rounds and final round
- Event reports

Locations:

The following cities hosted the regional hackathons, with Islamabad serving as the venue for both regional round and the grand finale.



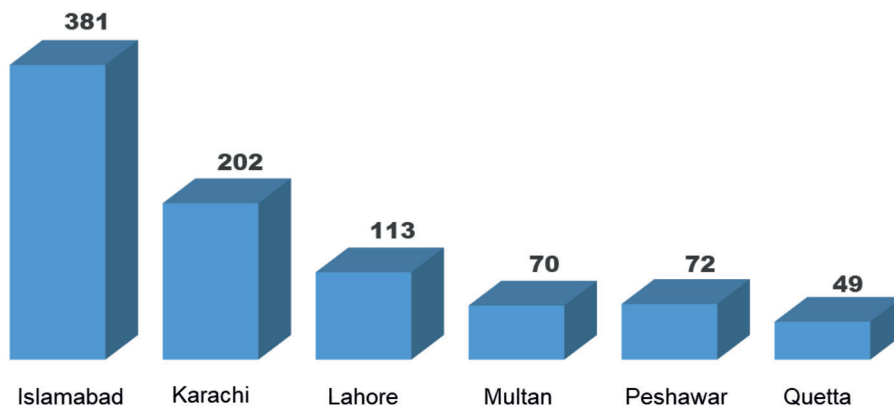
Karachi | Lahore | Multan

Peshawar | Quetta | Islamabad

Registration:

The registration for the competition was opened on September 17, 2023 and was closed on October 30, 2023.

A total of 887 teams comprising of 2-4 members were registered for the competition from designated regions.



Teams' Registered for the Competition

Qualification Round:

An online qualification round was held for registered teams on CyberTalents' platform. The credentials of registered participants were added to the platform enabling them login and participate in the round. Top teams were shortlisted for the next round in their respective cities based on a criterion.



Cyber criminals can use personal details, such as your favorite color, the last four digits of your credit card and your email addresses, to make educated guesses about your sign-in credentials.

Larry Alton



KARACHI QUALIFIER



Karachi, Pakistan's largest metropolis, serves as the country's economic, cultural, and financial center. This bustling metropolis, nestled along the Arabian Sea, is a melting pot of many cultures and traditions, reflecting the country's rich history. Karachi is a city of contrasts, with its dynamic mix of new buildings, historic sites, and vibrant markets. Its vibrant atmosphere is supported by a robust commercial sector, a bustling street scene, and a rich food scene. Clifton Beach, the Quaid's Mausoleum, and the bustling neighborhoods of Saddar and Clifton are among the city's prominent features. Despite obstacles such as growing urbanization and infrastructure problems, Karachi is a resilient city that plays an important role in defining Pakistan's future.



Ramada Marquee, Ramada Plaza, Karachi



November 24, 2023



From the Sindh region, a total of 177 teams were registered in the event while 58 teams qualified for the competition.



Talks/Keynotes

- Mr. Khurram Javed, Director, PKCERT
- Mr. Salman Mufti, Head of Enterprise Security, HBL
- Mr. Razi Farooqui, CISO, K-Electric
- Mr. Fahad Azam, CISO, Meezan Bank



Panel Discussions

- Topic



Quiz Competition

- 14 teams from 7 universities.

The first regional hackathon took place on November 24, 2023, at the Ramada Hotel in Karachi, following the inauguration ceremony featuring keynote addresses, talks, and quiz competition.

Mr. Asim Shahryar Husain, CEO of Ignite, shed light on the growing demand for cybersecurity expertise in today's digital era. He highlighted Ignite's initiatives to protect critical data, with a focus on strategic measures toward digital transformation in Pakistan.

Notable cybersecurity specialists, such as the following, were invited to give keynote addresses at the event:

- Mr. Salman Mufti, Head of Enterprise Security at HBL
- Mr. Khurram Javed, Director (Capacity Building), NCERT
- Prof. Dr. Bilal Ahmad Alvi, Vice Chancellor, Nazeer Hussain University, Karachi
- Prof. Dr. Rabia Enam, Director ORIC, Sir Syed University of Engineering and Technology

A cybersecurity quiz competition began in the morning between 14 teams from seven different colleges. The university quiz competition was a thrilling demonstration of talent and creativity in the rapidly evolving area of cybersecurity. The participants were put through intense rounds of questions covering everything from penetration testing and ethical hacking to network security and cryptography. Universities sent their best teams, promoting camaraderie and healthy competition. Students had the opportunity to network with experts in their field and professionals. Our partners distributed prizes and certificates to the top three teams in the competition.

The opening round of the competition featured talented teams from Sindh province. The qualified teams were allotted ten hours to finish Red and Blue teaming challenges. Participants bravely confronted problems, resulting in a dynamic mix of innovation and skills.

In the first session, Blue Team challenges related to offensive security was given to participating teams. These challenges were divided into categories including Web, Mobile/Reverse/Exploitation, OSINT, Network, Crypto, and Forensics with difficulty levels ranging from easy, medium, and hard. The second session belongs to Red team challenges related to defensive approach. In order to flag or answer to challenges, the players had to identify, defend, and investigate the facts.

Three top teams moved to the final round based on the quickest responses. The event also included a cybersecurity quiz competition in which 14 teams participated from seven universities. The top three teams in the competition were awarded prizes and certificates.

Winners of Quiz Competition:

1. Stay Hard - FAST National University of Computer & Emerging Sciences
2. We Don't Need Memories - FAST National University of Computer & Emerging Sciences
3. NUST ALPHA - National University of Sciences & Technology

Winners of Karachi Hackathon:

1. revolt
2. m4lware
3. Sigma4

“
It takes 20 years to build a reputation and few minutes of cyber-incident to ruin it.
Stephane Nappo

”

A Peek at the Contest:

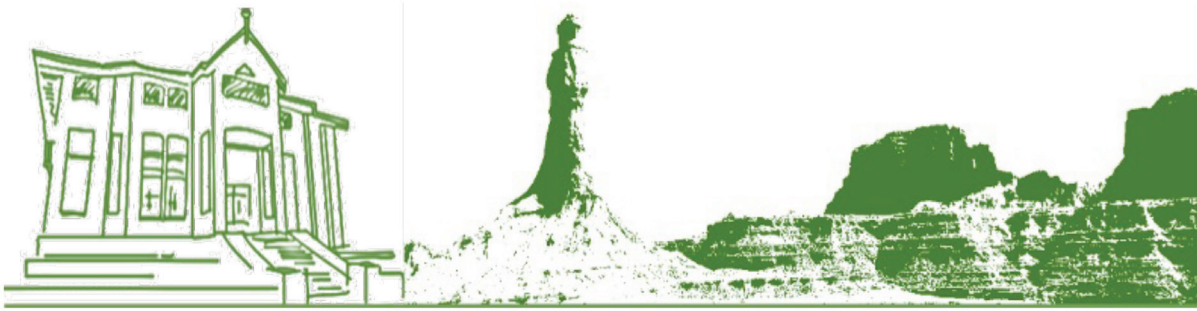


Winners of Karachi Qualifier Round



Winners of Quiz Competition

QUETTA QUALIFIER



Quetta, the capital city of Pakistan's Balochistan province, is set in a magnificent setting of steep mountains and wide-ranging valleys. Quetta has been a crossroads of numerous civilizations throughout its history, and is known for its rich cultural heritage and historical significance. The local bazaars are bustling with activity, selling a diverse range of commodities from traditional handicrafts to spices and fabrics. The strategic location of Quetta near the borders of Afghanistan and Iran has helped mold its character as a significant trade and business hub enchanting visitors with its warmth, unique blend of cultures, and raw beauty.



National Incubation Center, Balochistan University of Information Technology, Engineering and Management Sciences, Quetta



November 28, 2023



23 teams from the Quetta region qualified for the competition out of the 49 teams who registered for it.

The National Incubation Center (NIC) at the Balochistan University of Information Technology, Engineering, and Management Sciences (BUIITEMS) served as the host in Quetta.

A one-day competition was held between teams who solved offensive security-related Red Team challenges in the first session. While in second session, participants had to solve Blue team challenges related to defensive approach.

The hackathon was a true cybersecurity extravaganza, with every moment brimming with energy and an innovative spirit. Ten hours were allotted to the participants to compete and solve the challenges. Based on the quickest responses, the top teams of Quetta Qualifier won their places in the grand finale held in Islamabad.

Winners of Quetta Hackathon:

1. Hundred Thieves
2. Hacking Ninjas
3. Team Secret

A Peek at the Contest:



Winners of Quetta Qualifier Round

LAHORE QUALIFIER



Lahore, known as the “Heart of Pakistan,” is a dynamic and historical city that serves as the provincial capital of Punjab. Lahore, known for its rich cultural legacy, flawlessly combines the historic and the new. The city is filled with architectural marvels, such as the Lahore Fort, the Badshahi Mosque, and the Shalimar Gardens, which together display the majesty of Mughal architecture. With its busy bazaars, street food stalls, and burgeoning arts scene, Lahore is a cultural and culinary hotspot. The Lahore Museum is a rich mine of artifacts that document the history of the region. The city is also noted for its friendliness and hospitality, which makes visitors feel at ease. Lahore is a city that celebrates history, diversity, and resilience.



National Incubation Center (NIC), Lahore University of Management Sciences (LUMS), Lahore



December 4, 2023



From the Lahore region, a total of 113 teams were registered in the event while 34 teams qualified for the competition.



Talks/Keynotes

- Bug Bounty | Hacking for Profit, M Khizar Javed
- Keynote Address: Mr. Ahrar Naqvi, CEO Ebryx
- Cybersecurity at the Core of Digital Transformation: Mr. Awais Ejaz, Head of IT Security, UBL
- Cybersecurity Local Trends: Mr. Asher Faisal Khan, CEO, Commtel
- Navigating the Cybersecurity Frontier - Trends & Challenges in Digital Forensics: Mr. Kokab Jamal Zuberi, Director, DFRSC
- Dr. Ali Cheema, Vice Chancellor, LUMS



Panel Discussion

- Skill Shortage – The Ultimate Cybersecurity Challenge
- Panelists:
- Mr. Mahir Mohsin, CEO, Trillium
 - Ms. Suman Siddique, CISO, MCB
 - Mr. Muhammad Ahmed, Head IS, FINCA
 - Mr. Yasir Mirza, CIO, SNGPL

Along with the competition, NIC-Lahore hosted an event that featured a variety of cybersecurity knowledge sessions delivered by seasoned speakers and trainers. The event drew a broad crowd, including distinguished visitors, who all shared a passion for cybersecurity. The seminar also included insights from Ignite management on the most recent cybersecurity initiatives.

Mr. Asim Shahryar Husain, CEO of Ignite, interacted with the audience and visitors, responded to questions, and took the stage to shed light on Ignite’s activities and the new approaches being explored to modernize cybersecurity skills in Pakistan.

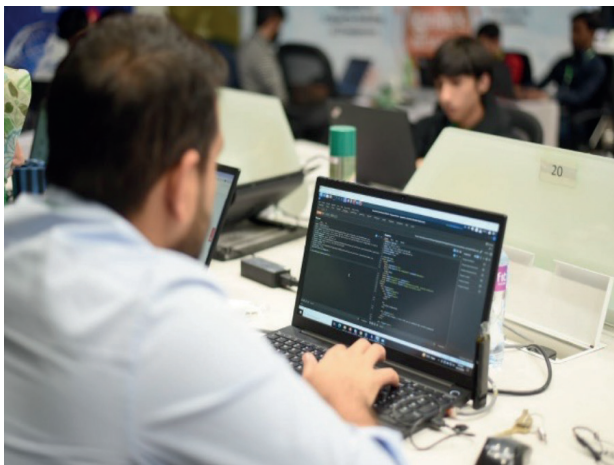
The qualified teams from Lahore region were given offensive security-related Red Team challenges during the first session which lasted for four hours. While in 6-hours long second session, participants had to solve Blue team challenges related to defensive approach in order to flag or answer to challenges.

Ten hours were allotted to the participants to compete and solve the challenges. Based on the quickest responses, the top teams of the Lahore Qualifier won their places in the grand finale held in Islamabad.

Distinguished cyber warriors, prestigious visitors, seasoned speakers, professional trainers, and the frontline Ignite team received certificates from Mr. Asim Shahryar Husain, CEO of Ignite, at the ceremony.

Winners of Lahore Hackathon:

1. Lexicans
2. SafeCottage
3. localhost



MULTAN QUALIFIER



Multan is a historic and culturally rich city in Pakistan's Punjab province. Multan is one of South Asia's oldest continually inhabited cities, stretching back thousands of years. It has historically been an important center for trade, commerce, and Sufi mysticism. The city is well-known for its numerous shrines and graves, which attract both pilgrims and tourists. Multan's vibrant bazaars, such as the busy Ghanta Ghar market, highlight the city's economic bustle and offer a broad array of local handicrafts, fabrics, and, of course, the region's famous delicious mangoes.



MNS University of Agriculture, Multan



December 7, 2023



Multan: 22 teams qualified for the competition out of the 70 teams who registered for it.
Sukkur: 25 teams were registered while 2 teams qualified for the competition.

MNS University of Agriculture, Multan hosted the event where the cyber warriors triumphed and showcased their real-time expertise.

A day long competition was held between teams who solved offensive security-related Red Team challenges in the first session. During the second session, participants were given the opportunity to respond to Blue team challenges using defensive approach.

The players were allotted ten hours to compete and complete the tasks. Based on the quickest responses, the top teams of Quetta Qualifier secured their places in the grand finale.

During the concluding event, the outstanding winners and runners-up received certificates from Mr. Idrees Awan, Project Manager at Ignite, and Dr. Aamir Hussain, Head of Computer Sciences Department at MNS University, Multan.

Winners of Multan Hackathon:

1. Beluga Returns?
2. M4rkH0r
3. Brokers

A Peek at the Contest:



Winners of Multan Qualifier

PESHAWAR QUALIFIER



Peshawar, the capital city of KPK province, is a bustling and historically rich metropolis perched at the edge of the Khyber Pass. Known as the “City of Flowers” for its lush gardens and attractive surroundings, Peshawar has a centuries-long cultural legacy. From the ancient Gandhara culture to the Mughal era and beyond, the city has served as a crossroads for numerous civilizations. Its busy bazaars, such as Qissa Khwani, are well-known for their lively ambiance and broad selection of items. Peshawar is also known for its traditional Pashtun hospitality, which is evident in its people’s kindness. The city is a fascinating location for both locals and visitors since it is a melting pot of history, culture, and commerce



Institute of Management Sciences (IMSciences), Peshawar



December 12, 2023



From the KPK region, a total of 72 teams were registered in the event while 12 teams qualified for the competition.

IMSciences Peshawar hosted the day-long event. The hackathon was a veritable cybersecurity spectacle, bursting with inventive spirit and boundless enthusiasm at every stage.

The qualified teams from KPK region took part in the competition. During the first four-hour session, Red Team challenges pertaining to offensive security were given to the participating teams. In the second six-hour session, participants were required to complete for the defensive approach-related Blue team challenges.

The dedication of cyber warriors, passionate individuals committed to safeguarding the crucial data of our digital world was remarkable. Based on the quickest responses, the top teams of the Peshawar Qualifier had secured their places in the grand finale held in Islamabad. Mr. Idrees Awan, Project Manager at Ignite, took the stage with pride and awarded certificates to our exceptional winners.

Winners of Peshawar Hackathon:

1. T3M4n6
2. Team 8bit
3. Hunter313



“Dadada”
Mark Zuckerberg’s password, as revealed after data breach.
6th June 2016



A Peek at the Contest:



Winners of Peshawar Qualifier

ISLAMABAD QUALIFIERS



Pakistan's capital city, Islamabad, is a remarkable example of modern architecture combined with the natural world. Greek town designer and architect Constantinos Apostolou Doxiadis created this planned community, which is tucked away against the scenic Margalla Hills. Islamabad is the country's political and administrative hub and is renowned for its clean, green, and contemporary architecture. Important diplomatic missions, government buildings, and cultural organizations are located in the city. Adding to the skyline of Islamabad, the Faisal Mosque is a prominent emblem of the city and one of the biggest mosques globally. With its well-kept parks and calm atmosphere, the city offers a distinct combination of urban sophistication and tranquility in South Asia, making it an enjoyable place to visit and live.



COMSATS University, Islamabad



December 16 – 17, 2023



169 teams from the Islamabad/Rawalpindi qualified for the competition out of the 381 teams who registered for it.

Due to large number of qualifying teams from Islamabad and Rawalpindi regions, two qualifying rounds were held to select the top teams.

The event was hosted by COMSATS University Islamabad. The competition was held between teams who solved computer security problems by capturing (attacking/bringing down) or protecting computer systems and scoring most points for winning the challenge. Four hours were allotted to the participants to compete blue teaming session and four hours were given for CTF tasks.

A one-day competition was held between teams who solved offensive security-related Red Team challenges in the first session. While in second session, participants had to solve Blue team challenges related to defensive approach.

The hackathon was a true cybersecurity extravaganza, with every moment brimming with energy and an innovative spirit. Ten hours were allotted to the participants to compete and solve the challenges. Based on the quickest responses, the top teams of Islamabad Qualifier won their places in the grand finale held in Islamabad.

Based on the quickest responses, the top teams of the Islamabad Qualifier had secured their places in the grand finale held in Islamabad.

Winners of Islamabad Hackathon:

- | | Day – 1 | Day – 2 |
|----|-----------------|---------------|
| 1. | AirOverflow | Port Knockers |
| 2. | PsychoTherapist | Cyberbullies |
| 3. | 1njectors | Griffyns |

A Peek at the Contest:

DAY – 1



Winners of Day-1 Islamabad Qualifier

DAY – 2



Winners of Day-2 Islamabad Qualifier

“

**Security used to be an inconvenience sometimes,
but now it's a necessity all the time.**

Martina Navratilova

”

THE GRAND FINALE



COMSATS University, Islamabad

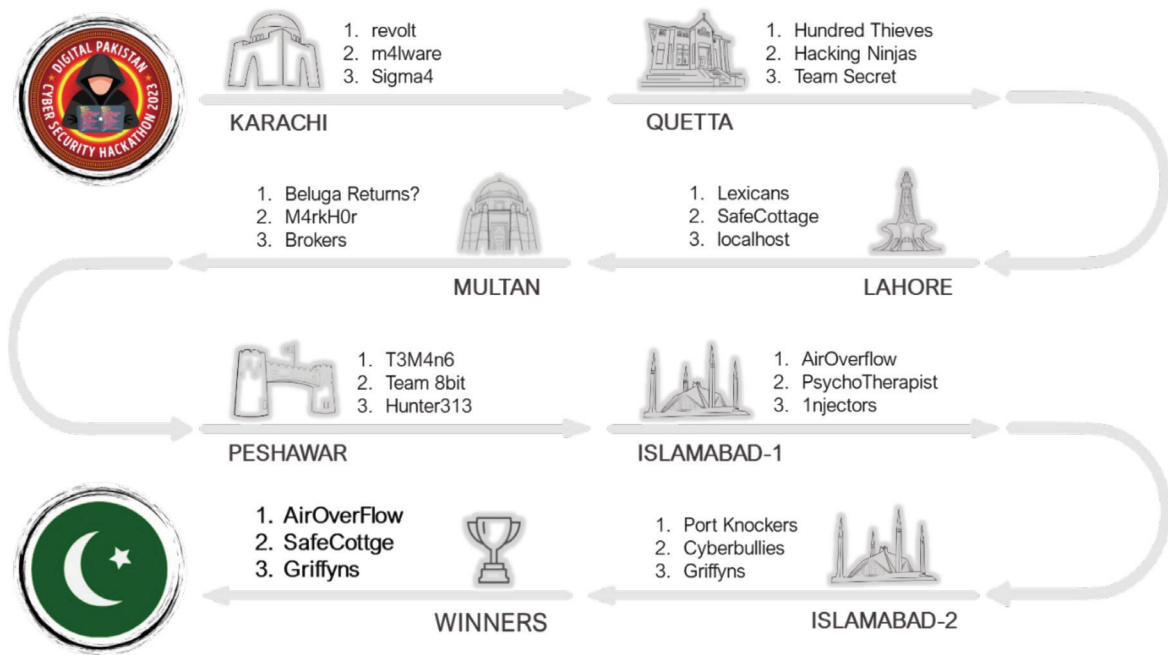


December 25-26, 2023



Twenty-one team from 6 regions made it to the final round.

Following an extensive series of qualifying rounds, the final round took place at COMSATS University in Islamabad from December 25-26, 2023. The winners from Lahore, Karachi, Islamabad, Quetta, Peshawar, and Multan converge at Comsats University Islamabad, for the ultimate showdown.



Journey of Teams in Cybersecurity Hackathon 2023

There were 21 teams from all around Pakistan that competed in the final round, and the top 3 teams were selected as winners. The participating teams were given Red Team and Blue Team challenges. The final round was spanned over two days.

The teams competed in an Attack & Defense format on the first day. Red Team challenges are offensive tasks designed to put offensive security skills to the test. They require participants to identify security flaws and vulnerabilities in applications and networks in order to breach access levels that have been assigned. In this manner, the challenge is finished by the participants by reading text-style flags. Participants were given seventeen tasks ranging in difficulty from easy to hard for multiple categories.

On day two, participants take on the role of security experts stationed within the organization to defend against ongoing attacks as part of Blue Team challenges. They are defensive in nature. Participants must carry out specific defensive actions utilizing the most recent APT (Advanced Persistence Technique) scenarios. The attacks are generated by automated Red Team activities within the cyber range. This challenge category puts SOC-L1 and SOC-L2's abilities to the test. Eight waves of four APTs made up the final round.

Based on the correct solutions and fastest responses, weighted average of Blue and Red team challenges was calculated. As a result, three teams were selected as winners of the Digital Pakistan Cybersecurity Hackathon 2023.

Winners:



SafeCottage
Lahore



AirOverFlow
Islamabad



Griffyns
Islamabad

A Peek at the Contest:



THE AWARDS CEREMONY



Serena Hotels, Islamabad



December 27, 2023



Talks/Keynotes

- Mr. Waqas Haider, CISO, HBL Microfinance Bank
- Mr. M. Khizer Javed, Bug Bounty Hunting

Panel Discussions

- Challenges in Adapting Indigenous Cybersecurity Products



Panelists:

- i. Mr. Mahir Mohsin, CEO, Trillium (Moderator)
- ii. Mr. Jawed Khalid, CISO, Askari Bank
- iii. Mr. Kashif Kafaet, NCCS
- iv. Mr. Ammar Jafri, Ex-ADG, FIA
- v. Mr. Khurram Rahat, CEO, Botnastic Solutions
- vi. Dr. Mehreen Afzal, Director Security & GRC, NCERT



Quiz Competition

- 17 teams from 10 universities.

Beginning with hands-on workshops in ten cities, the Digital Pakistan Cybersecurity Hackathon 2023 journey progressed through regional hackathons in six cities before reaching a jubilant grand finale in Islamabad. Prominent industry leaders, the chief guest, and the cyber community extended their commendation for Ignite's successive initiatives.

The event was attended by officials of the IT Ministry, Ignite, Chief Information Security Officers (CISOs), cybersecurity experts, and professionals from industry, academia, winning teams, and the youth with an interest in cybersecurity.

A cybersecurity quiz competition with 17 teams from ten universities kicked off the event in the morning. The university quiz competition was an exciting display of skill and innovation in the rapidly evolving discipline of cybersecurity. Intense rounds of questioning with topics spanning from network security and cryptography to ethical hacking and penetration testing were held with the participants. The competition tested the participants' problem-solving abilities in addition to their theoretical knowledge. Universities entered their best teams, encouraging friendly rivalry and unity among competitors. Students were able to network with professionals and subject-matter experts. The top three teams in the competition were awarded certificates and prizes from our partners.

Bug Bounty Hunting spokesperson, M. Khizer Javed presents an insightful session on Hacking for Profit.

He expressed his gratitude to the Federal Minister for Information Technology and Telecommunication, Dr.

Umar Saif, for the award and shield, as well as to Ignite and the Ministry of IT & Telecom for organizing this remarkable competition and series of events. Mr. Khizer wished the students preparing for the tournament next year all the best and congratulated all the winning teams from this year.

“

Had an amazing time speaking about Bug Bounty Hunting at the Digital Pakistan CyberSecurity Hackathon 2023 award ceremony. Thank you Ignite, MoITT for organizing this remarkable competition and series of events. Special thanks to Dr. Umar Saif for the recognition and Shield. Congratulations to all the triumphant teams this year! Wishing the best to the students gearing up for next year's competition.

Muhammad Khizer Javed, Bug Bounty Hunting

”

In his welcome address Chief Executive Officer Ignite, Mr. Asim Shehryar Hussain said, the IT Ministry and Ignite are on a relentless pursuit of identifying and nurturing talent capable of thwarting malicious cyber attempts on our national networks.

Our progress is evident in the establishment of operational readiness for Pakistan's National Computer Emergency Response Team (NCERT) and the imminent institutionalisation of a Cyber Security Authority. Creating awareness about cyber security among the public was also essential, Mr. Hussain added.

He informed that six teams represented Pakistan at Blackhat's cyber-security competition in Saudi Arabia in November this year and four of them were ranked in the top 35 teams out of 250 international teams who participated in the event. He added that education plays a crucial role in shaping a safer digital space.

He added that this achievement reflects the high caliber of our participants and the success of our ongoing initiatives.

Mr. Waqas Haider, CISO, HBL Microfinance Bank was invited to deliver a talk. He discussed the extensive scope and crucial role of cybersecurity skills for a robust Digital Pakistan. He spoke on the rising importance of cybersecurity and the steps government, academia, and industry can take to train IT graduates and professionals to guard its cyber networks in the future.

A panel discussion on “Challenges in Adapting Indigenous Cybersecurity Products” was also featured at the event. Mr. Mahir Mohsin, CEO of Trillium moderated the debate. Among the panelists were Mr. Khurram Rahat, CEO of Botnastic Solutions; Mr. Ammar Jafri, Ex-ADG, FIA; Mr. Jawed Khalid, CISO of Askari Bank; Mr. Kashif Kafaet, NCCS, and Dr. Mehreen Afzal, Director Security and GRC, NCERT.

Dr. Umar Saif, Caretaker Minister for IT & Telecom had graced the events as Chief Guest. Following the arrival of the chief guest, the award ceremony got underway. Ignite showcased a documentary on the complete journey of the hackathon in different cities of Pakistan which was very much appreciated by the audience.

While addressing the event, Dr. Umar Saif said that there was no specific organization to combat cybercrime, so a cybercrime wing was created in FIA to look after these issues. He added that first National Cyber Emergency Response Team (National CERTS) has been established in Pakistan and Sectoral CERTS would be organized under this group.

“The significance of events like these cannot be overstated; they are pivotal in fostering innovation and collaboration within the dynamic field of cyber security. The prevalence of malware and malicious attacks in our increasingly digital environment highlights the vital importance of cybersecurity.” Dr. Saif continued, “The dynamic nature of cyber threats demands constant innovation to outpace malicious actors.”

He said that as informed, 6 teams represented Pakistan at Blackhat’s cyber security competition in Saudi Arabia this year and 4 of them were ranked in the top 35 teams out of 250 international teams who participated in the event.

He stated, “I hope we have at least one team in the top 10 teams at next year’s Blackhat competition,” praising Pakistan and Ignite for their commendable first step. The Minister of IT emphasizes the need of a relationship between the public and private sectors as well as academia, recognizing the need for strong collaboration.

Dr Umar Saif, extended his gratitude to all participants, sponsors, and organizers who played an instrumental role in making the Digital Pakistan Cybersecurity Hackathon an undeniable success. In addition, he praised Team Ignite for their efforts in organizing hackathons and training sessions since October.

The winners of the hackathon received rewards including cash prizes of Rs. 3 million, coupons for international training worth Rs. 6 million, international sponsorships worth Rs. 6 million, and worldwide exposure.

Winners of Quiz Competition:

1. **OFF-FAST**
FAST National University of Computer & Emerging Sciences
2. **IMU-FAST**
FAST National University of Computer & Emerging Sciences
3. **BANDITS-VII**
Air University

Hackathon 2023 Winners:

Following a ferocious battle with the winners of the six regional cybersecurity hackathon 2023, team AirOverFlow unleashed an explosion of victory. Well-deserved cash prize of Rs. 1.5 million was awarded to the winning team. A thrilling journey of skill development and advancement has begun for them as they have also secured sponsorships for international competition and international training coupons.

With their outstanding performance as the first runner-up, team Safe Cottage has won an incredible monetary award of one million rupees. Additionally, they have received international training coupons, paving the way for them to display their skills on a global level.



With a great finish as the second runner-up, team Griffyngs has won an amazing Rs. 500,000 cash reward. Not only that, but they have also secured sponsorships for international competition and international training coupons, opening doors to a global platform where they may continue to shine and inspire us.



Sponsorships for International Competitions:

Three teams from Pakistan were sponsored by Ignite to participate in Black Hat MEA, a prestigious international competition, which was hosted in Riyadh from November 14-16, 2023. These teams were ranked amongst top 35 out of 250 international teams.



Subscription Coupons for International Trainings:

Vouchers for international training were provided to participants of hackathon for practicing and enhancing their skills. These vouchers aid in exam preparation for globally recognized exams such as the Offensive Security Certified Professional (OSCP).

HACKTHEBOX is a premium platform with global recognition featuring sophisticated simulated labs with increasingly difficult CTF challenges and real-world scenarios. As such, it's a great resource for cybersecurity enthusiasts and professionals looking for practical experience. A dynamic learning environment is generated by the platform's learning paths, ranking system, and vibrant community.

HACKTHEBOX Pro Labs extends the HTB experience, providing users with advanced penetration testing environments that closely emulate complex enterprise networks. Pro Labs offers realistic and challenging scenarios, allowing users to enhance their skills in professional-level penetration testing engagements. With an emphasis on hands-on experience and real-world applicability, Pro Labs caters to users looking to deepen their expertise in cybersecurity by tackling intricate networks and overcoming sophisticated challenges. **A total of 50 vouchers were provided to top performers in the training workshops.**



HACKTHEBOX Academy is a platform by HTB which has academy labs. The academy contains all the learning material and content which helps learn new skills and get introduced to the world of cyber security in different domains. **A total of 30 vouchers were provided to top performers in the training workshops.**

A Peek at the Award Ceremony:



Dr. Umer Saif, Caretaker Minister for IT & Telcom



Winner: Team AirOverFlow



1st Runner-up: Team Safe Cottage



2nd Runner-up: Team Griffyngs



Panel Discussion addressing the Challenges in Adapting Indigenous Cybersecurity Products



Champions of Digital Pakistan Cybersecurity Hackathon 2023

Special thanks to the Chief Guest, Dr. Umar Saif, Caretaker Federal Minister of IT & Telecom, for gracing the event, and a heartfelt felicitation to all participating teams, quiz contestants, trainers, and our valued industry and academia representatives for making this event a resounding success!

THE IMPACT

Highlights:



- ▶ Enhanced knowledge and expertise amongst cybersecurity community for a more secure and resilient digital Pakistan



- ▶ 6 teams from Pakistan got selected amongst 250 teams worldwide to compete in an international competition
- ▶ 4 of them were ranked in the top 35 teams



- ▶ 887 teams registered for the hackathon from all over the country
- ▶ 320 teams were shortlisted to compete in regional rounds



- ▶ 31 Teams from 17 universities participated in Quiz Competitions



- ▶ 1200+ talented resources identified
- ▶ 82% Males, 18% Females



- ▶ 1650+ participants attended hands-on training workshops held at 10 cities across the country
- ▶ 10+ Talks/Presentations by Industry Experts
- ▶ 1000+ people joined for talks and panel discussions

Promotion of Cybersecurity Awareness:

The hackathon contributed to increasing public awareness of cybersecurity risks and the significance of effective cybersecurity measures. This made it easier to educate enterprises and the public about potential threats and the importance of security measures.

Fostering a Cybersecurity Community:

A vibrant and collaborative cybersecurity community has been built in Pakistan. This sense of community encouraged continual collaboration, sharing of knowledge, and collective efforts to tackle cybersecurity issues.

Talent Identification:

Hackathon served as a talent hub where organizations and cybersecurity experts find emerging talent. This resulted in potential job opportunities, internships, and collaborations between participants and industry experts.

Networking:

Participants had the opportunity to connect with industry experts, mentors, and fellow cybersecurity enthusiasts. It has been demonstrated that networking is crucial for professional development, teamwork, and staying updated on the latest industry trends and challenges.

Innovation and Solutions:

Hackathon encouraged participants to think creatively and come up with novel solutions to cybersecurity challenges. The event led to the development of new tools, techniques, and strategies that can be applied in real-world cybersecurity scenarios.

Skill Development:

The primary objectives of the training sessions were accomplished and participants went away from the sessions more knowledgeable and equipped to handle cybersecurity issues. In order to contribute to a more secure digital environment in Pakistan, numerous participants stated that they intended to use the knowledge they had learned during the training sessions in both their personal and professional life.

It made a significant contribution to the cause of cybersecurity awareness and education, making Pakistan's digital infrastructure safer and more resilient. The event demonstrated Pakistan's dedication to developing a robust cyber security workforce and community.



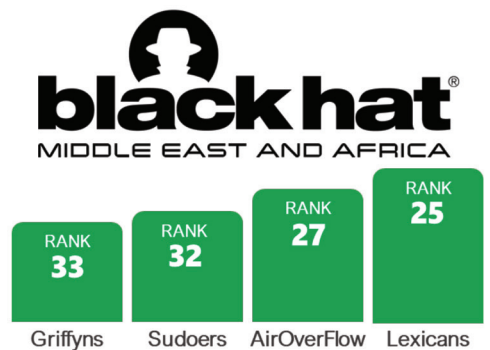
Over the past three years, these events have become a consistent beacon of opportunity for IT students and learners across Pakistan.
Dr. Shehzad Khalid, Principal of Bahria Institute of Engineering and Applied Sciences at Bahria University Islamabad



Expanding Globally:

Four incredible teams from Ignite's Cybersecurity Hackathons have earned their places in the prestigious Black Hat International Competition held at Riyadh, Saudi Arabia. These talented teams have proven their mettle and represented Pakistan on the global stage. Earlier, out of 250 teams worldwide, six teams from Pakistan were selected to participate in the competition.

Their outstanding cybersecurity prowess and knowledge were much appreciated for this outstanding accomplishment on a global scale.





Congratulations to the amazing “AirOverflow” team from Ignite’s Digital Pakistan Cybersecurity Hackathon for their outstanding accomplishment at “Black Hat MEA” in Riyadh, Saudi Arabia: they cracked a Linux Docker in an astounding 4 minutes and 50 seconds in a challenge given by the Academy of Learning.

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Computer hackers do not need to know each other’s real names, or even live on the same continent, to steal millions in mere hours.
Robert Mueller
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IN CONCLUSION

As the Digital Pakistan Cybersecurity Hackathon 2023 draws to an end, we take a moment to consider the amazing journey of creativity, teamwork, and skill development that took place at this occasion. The hackathon demonstrated the participants' unwavering commitment to addressing the evolving cybersecurity landscape.

Participants engaged in a variety of ethical hacking training sessions and skill development seminars during the hackathon, which enhanced their knowledge base and equipped them for the continuously evolving cybersecurity landscape. Participants were encouraged to share information and make contributions to the wider cybersecurity community by emphasizing on open source tools and platforms, thus fostered a collaborative spirit.

The wide range of talented individuals who participated in this hackathon demonstrated their expertise across multiple cybersecurity domains, including digital forensics and online application security. Their enthusiasm and dedication to solving real-world issues were incredibly motivating, and it serves as more evidence that skilled cybersecurity experts are in charge of safeguarding our digital future.

In addition to providing a stage for technical skill, this hackathon has served as a means of bringing attention to the vital significance of cybersecurity. By incorporating cybersecurity awareness programs, we intend to foster a sense of ownership and comprehension in both the community at large and the individuals involved.

In conclusion, the success of the Digital Pakistan Cybersecurity Hackathon 2023 has been attributed to the commitment of the participants, the knowledge of mentors, and the support of partners. As we move ahead, we are firmly dedicated to developing Pakistan's cybersecurity ecosystem, fostering innovation, and giving individuals the tools, they need to safeguard our digital world. Together, we are building a secure and resilient digital future for Pakistan and beyond.

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Hacking just means building something quickly or testing the boundaries of what can be done.

Mark Zuckerberg

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Ministry of Information Technology & Telecommunications
Government of Pakistan
3rd Floor, TF Complex, 7 Mauve Area, G-9/4, Islamabad
Tel: (+92 51) 910 7441 – 46 | Fax: (+92 51) 910 7447 | ignite.org.pk

