



Shifa Tameer-e-Millat University

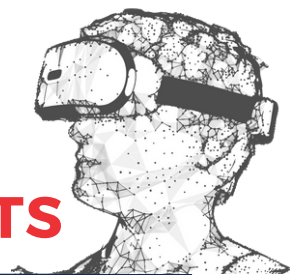
شفا تعمیرِ ملت یونیورسٹی

Year  
2022-23



DEPARTMENT  
OF  
COMPUTING

## A BYTE CHRONICLES: AN YEAR OF REMARKABLE ACCOMPLISHMENTS



- PhD in Computer Science (HEC Approved)
- MS in Data Science (HEC Approved)
- BS in Computer Science (NCEAC Approved)
- BS in Software Engineering (NCEAC Approved)
- BS in Artificial Intelligence (NCEAC Approved)
- BS in Cyber Security (NCEAC Approved)



I am pleased to extend a warm welcome to all readers to this composition, which encapsulates the remarkable achievements of Department of Computing within the Faculty of Computing at Shifa Tameer-e-Millat University (STMU), situated in Islamabad, Pakistan. STMU, renowned for its excellence in the realm of healthcare, and as a federally chartered university duly recognized by the Higher Education Commission (HEC), has recently inaugurated the discipline of computing. The field of computing at Shifa has undergone a prodigious transformation, garnering significant recognition and acclaim.

In this edition, readers will have the opportunity to peruse the department's endeavors and accomplishments during the academic year 2022-2023. It is worth mentioning that all academic programs within the computing department have received official approval from both HEC and Computing Council. Notably, the department has initiated programs such as the Doctor of Philosophy in Computer Science, Master of Science in Data Science, Bachelor of Science in Computer Science, Bachelor of Science in Software Engineering, Bachelor of Science in Artificial Intelligence, and Bachelor of Science in Cyber Security. The Department of Computing at STMU has tirelessly devoted its efforts to attract a cadre of exceptional computing faculty, establish state-of-the-art laboratories, develop purpose-built infrastructure, curate industry-oriented curricula, and foster collaborations at both the national and international levels, spanning academia and industry alike.

Our first-year students have achieved a remarkable feat by emerging victorious in nine prestigious national competitions, triumphing over their counterparts from distinguished national universities. Furthermore, these students have displayed their entrepreneurial acumen by embarking on entrepreneurial endeavors, securing employment with esteemed international corporations, and securing coveted internships within renowned national and international institutions.

Our commitment to providing students with cutting-edge knowledge is unwavering, as evidenced by our routine organization of seminars, Webinars widely known as "Educational Baithak", hands-on sessions, and practical workshops, all designed to equip our students with the latest and most relevant expertise. Hope you will enjoy reading this document!

## MESSAGE FROM THE DIRECTOR



**BY PROF. DR. TANVIR AFZAL**  
DIRECTOR & PROFESSOR,  
DEPARTMENT OF COMPUTING  
DIRECTOR CAMPUS, PARK ROAD  
CAMPUS - SHIFA TAMEER-E-MILLAT  
UNIVERSITY, ISLAMABAD



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# ACADEMIC PROGRAMS OFFERED FOR FALL 2023



The Department of Computing at Shifa Tameer-e-Millat University (STMU) offers a comprehensive range of graduate and undergraduate programs in the field of computer science and other related disciplines. The department takes pride in offering the following HEC and NCEAC approved programs:

- 1. PhD in Computer Science (PhD, CS):** This is a rigorous research-based program aimed at producing scholars and researchers, who can contribute to the advancement of knowledge in the field of Computer Science. The program offers specialized courses and provides mentorship to students pursuing edge cutting research topics.
- 2. MS in Data Science (MSDS):** This program intends to provide students with advanced knowledge and skills in the field of data analysis, machine learning, and data visualization. The program focuses on practical applications of data science techniques. Thus, preparing students for careers in data-driven industries.
- 3. BS in Computer Science (BSCS):** This undergraduate program in CS provides students with a solid foundation in core computer science concepts, algorithms, programming languages, and software development methodologies. The program emphasizes on problem-solving skills and preparing students for various career paths in the IT industry.
- 4. BS in Software Engineering (BSSE):** This program is designed to train the students in the principles and practices of software development, and testing, as well as project management while making students proficient in expertise of designing and building robust and scalable software systems.
- 5. BS in Artificial Intelligence (BSAI):** This program focuses on developing students' understanding and skills in areas such as machine learning, natural language processing, computer vision, and intelligent systems. Students learn to create AI-powered solutions and explore the potential of AI in various domains.
- 6. BS in Cyber Security (BSCySec):** This undergraduate program prepares students to protect digital systems, networks, and data from cyber threats. The students would learn about network security, cryptography, ethical hacking, and incident response, hence acquiring the knowledge and skills needed to address emerging security challenges.



The aforementioned offered programs at STMU are designed to meet the highest academic standards, providing students with a strong theoretical foundation and practical experience. The dedicated faculty, state-of-the-art facilities, and industrial collaborations ensures that graduates are well-equipped to excel in their chosen careers on their way to contribute towards the advancement of the field of computing.



Achievements



On March 18, 2023, semester one students from Department of Computing, enthusiastically participated in the 19th edition of National-Level Robotics competition, called as Visio Spark'19, which is a yearly event organized by COMSATS University Islamabad. This competition featured various categories that included RoboRace along with other Engineering Project competitions. Students from various universities such as Air, COMSATS, UET Taxila and those working on their final year projects took part in the event. However, these were the students of STMU that distinguished their basis, hence securing three remarkable positions in this competition. While emerging as the "Winners" and "Runners Up" in the RoboRace category, along with being the "Runners Up" in the Engineering Project category.

## Visio Spark-19



## Success Story of Mr. Zafar Rehman



Semester 2nd

Get ready to be moved by the story of Mr. Zafar Rehman, a bright star who cherishes his achievements to his time at STMU. While being enrolled in semester one, Mr. Zafar Rehman managed to land a coveted internship at a top software firm. Not only this but he in-fact launched a successful startup by the name "Bird Vision". Which provides various services like web development, SEO, and Shopify. Rehman's narrative is the eye catching reality that lies within commitment, dedication, and perseverance, served at STMU. Come study with us at STMU and join the ranks of those determined to make their dreams a reality.

## Intra Departmental Programming Competition '23

Department of Computing at STMU places great emphasis on fostering a competitive and healthy programming environment among its undergraduate students. In line with this objective, the department organized an engaging Intra Departmental Programming Competition (IDPC) on June 21, 2023. The primary goal of the IDPC was to provide students, especially those of first semester, with a platform to showcase their programming skills in C++ programming language. A total of 95 students enthusiastically participated in the event. This competition served as an excellent opportunity for the students to not only demonstrate their proficiency in coding but to also showcase their problem-solving abilities.



In the evaluation process, the judges recorded the number of students who successfully completed all problems. Over 70% of students have accomplished the basic and intermediate level problems, which showcased their commendable performances. Among them, four students had solved all three problems that displayed exceptional programming skills. To determine the winner, the judges considered the time taken by each student. However, a tie occurred when two students occupied the same time. To resolve this tie, the judges assigned weights to the problems based on their complexity: Basic (weight = 1), Intermediate (weight = 2), and Hard (weight = 3). After analyzing their performance, it was found that the first student completed the first two problems earlier, while the second student finished the third problem earlier. Consequently, both students had the same weight of 3, grounded on the early task completion criterion.

Further evaluating the submissions, the judges critically analyzed the code written by both students and checked whether it adhered to the standard conventions of C++. Based on this evaluation, they identified that one student got the edge in code readability and have followed the recommended programming practices. Taking this into consideration, the judges declared **Mr. Hasnain Ali Chohan** as the "Winner", while **Mr. Muhammad Fawad** got the "2nd Position".

Director Campus, Prof. Dr. Muhammad Tanvir Afzal, honored the event with his presence and recognized the participants' efforts and talents. Prof. Afzal appreciated the dedication and hard work of all that took part in the competition. While emphasizing the importance of programming skills in computing. As a gesture of recognition, he presented the winners with shields and certificates, that symbolizes their outstanding performances while serving as a token of appreciation.



## RoboCust

### Best Engineering Award

On January 4, 2023, the students of Department of Computing took part in RoboCust, a national-level Robotics competition, specifically in the Line Following Robotic Competition. Where a total of 16 teams, from various Universities of Pakistan participated that included Bait-us-Slam, CUST, COMSATS, and FAST-NUCES. Impressively, "Best Engineering Design Award" was secured by none other than our students from semester one.



## Robo Race

The student's participation in the Robo Race competition (held on January 4, 2023) which proved to be a remarkable experience. The achievements of our First Semester students brought great pride to the Department of Computing and STMU as a whole. In recognition of their dedication, teamwork, and technical expertise, they were awarded multiple prizes, further celebrating our success. The competition's theme, "Line Follower Robots" showcased the intricate handcrafted nature of the developed robots, utilizing components such as the Micro-Controller (Arduino), IR Sensors, Motor Driver L298, DC Motors, Batteries, and other specialized equipment. This combination of ingenuity and technical skill enabled our robots to effectively navigate and follow lines greater precision. The "Runners-Up" was successfully hijacked by our remarkable students of semester one.

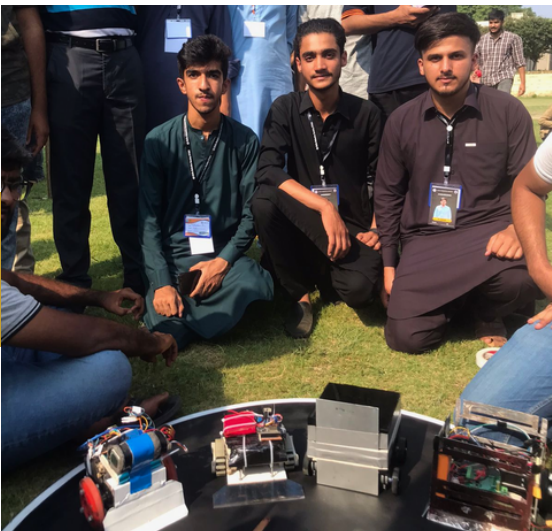




## NERC '23

On July 11, 2023, the 2nd semester students of Department of Computing at STMU enthusiastically participated in the **National Engineering Robotics Contest (NERC'23)**, a prestigious national-level Robotics competition. NERC is a collaborative effort between the National University of Sciences and Technology (NUST) and the STEM Careers Program HEC, aimed at promoting robotics research in Pakistan. The 19th edition of NERC 2023 was hosted by the Department of Mechatronics Engineering at NUST, and provided an exceptional platform for evaluating and comparing various robotic designs, control algorithms, and architectures.

Students from STMU showcased their skills in different categories at NERC'23 including "Ready to Race," "Sumo War," and "Aero Exhibition." The event witnessed participants equipped with the most advanced robotics kits. On the other hand, students of STMU worked hard developing their robot kits all by themselves, which they utilized in the event and did put up a remarkable fight thus qualifying for a semifinal match in the "Ready to Race" theme.





Entire Competition Winner

# ANSEC '23

On March 15, 2023, the first-semester students of Department of Computing participated with great enthusiasm in the Abasyn National Science and Engineering Competition (ANSEC'23). Remarkably, the students of STMU demonstrated their exceptional abilities by achieving great success in the Robo Race theme, they significantly outperformed their competitors and secured both the coveted "Winner" and "1st Runner-up" positions. Winning the entire competition is a significant accomplishment, and it showcases the talent, hard work, and dedication of the fresher's team from the Department of Computing. Their impressive performance in the ROBO race theme demonstrates their proficiency in designing and operating robots that excelled in the competition.



## Success Story of Mr. Tajjudin



Semester 3rd

In the realm of extraordinary achievements, let us introduce you to Mr. Tajjudin, a shining star in the vast galaxy of potential. While still in the second semester of his BSCS program, Mr. Tajjudin has defied all odds and embarked on an awe-inspiring journey towards success. His unwavering determination and relentless pursuit of knowledge have propelled him to unprecedented heights. Today, Mr. Tajjudin works alongside the finest minds in a prestigious company's Search Engine Optimization team in Canada's heart. From optimizing algorithms to unlocking the secrets of digital visibility, Mr. Tajjudin's prowess knows no bounds. His meteoric rise is a testament to the transformative power of education and the unwavering support provided by STMU. Join us in this extraordinary institution that nurtures brilliance and unlocks potential. Let Mr. Tajjudin's story ignite the fire within you, inspiring you to chase your dreams fearlessly. Enrol at STMU and set your sights on a future filled with infinite possibilities. Start your journey of academic excellence today and script your remarkable success story.

# HSRC '23



A remarkable achievement was made by Mr. Taha Akhtar, a student from the Department of Computing on March 11, 2023. While competing against a total of 35 teams of various Universities across Pakistan, this exceptional student showcased outstanding skills and determination in the Head Start Robotics Competition (HSRC'23), Line Follower Race despite all odds, thus bringing home the award of the "Runners-Up" for the season.

His accomplishment is truly commendable as Mr. Taha took on the challenge single-handedly, demonstrating his exceptional talent and expertise in the field of robotics. The ability to surpass teams from other universities, speaks volume.



## Success Story of Mr. Tayyab



Semester 3rd

Meet Mr. Tayyab, an exceptional student of the Department of Computing at STMU. During his time at our university, Mr. Tayyab's dedication and passion for digital marketing caught the attention of recruiters from a leading company in Canada. Impressed by his profound understanding of SEO principles and the quality education he received at STMU, they offered him an opportunity that would change his career trajectory. His remarkable achievements stand as a testament to the comprehensive curriculum and expert guidance our esteemed faculty at STMU provides. Join us at STMU and embark on a journey towards limitless possibilities, just like Mr. Tayyab. Together, we can turn your dreams into reality!



## CUSTBIC '23

Our students left no stone un-turned marking their way from Computing to the field of business. Our brilliant pupils entered CUST Business Idea Competition (CUSTBIC'23) held on May 24, 2023. With a startup, known as "Follow Bot Innovations," that specializes in developing affordable home assistance robots. The range of their products included vacuum cleaners, home automation systems, roti makers, dishwashers, and cost-effective robotic assistants like Alexa. It was a neck to neck competition with alumni and shining stars from other institutes, where our students showcased their exceptional abilities thus they were quite close to secure the competition as their's.

## BUSINESS IDEA COMPETITION



The students' success can be attributed to their outstanding dedication and hard work. They showcased their creativity, critical thinking, and problem-solving skills by developing innovative and autonomous robots that effectively addressed real-world challenges which reflected in CUSTBIC'23. Their creations were aimed at enhancing efficiency, safety, and productivity across different industries, showing their deep understanding of the needs and demands of the market.



# Students' Demographics

The Department of Computing of STMU proudly boasts a student body that is rich in diversity, representing various regions of Pakistan. The students from all provinces of the country choose STMU as their educational destination, creating a vibrant and multicultural learning environment. Whether hailing from Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, Gilgit-Baltistan, Azad Jammu and Kashmir, or any other province, these students bring their unique perspectives, experiences, and cultural backgrounds to the university. This diversity fosters a dynamic exchange of ideas, promotes cultural understanding, and nurtures an inclusive atmosphere where students can learn from one another and develop a broader worldview. STMU takes pride in its commitment to providing quality education to students from across Pakistan, fostering unity through the celebration of diversity.

Below is the comprehensive representation from all parts of Pakistan such as:

- Students from Punjab
- Students from Federal Islamabad
- Students from Khyber Pakhtunkhwa (KPK)
- Students from Azad Jammu and Kashmir
- Students from Sindh
- Students from Balochistan



# AI Task Force: Solving Complex Medical Real-World Problems using Computing Technology



Shifa International Hospital (SIH) and STMU have formally established an AI task force comprising esteemed researchers from the medical and computing fields. The primary aim of this collaboration is to tackle intricate real-world medical challenges by employing state-of-the-art technologies. Our research students are privileged to work on the real-world problems and gaining an invaluable experience in the health sector domain. Likewise, our undergraduate students are offered internship opportunities that provided the necessary skills to meet the demands of the industry.

Students of Department of Computing at STMU have excelled in their academic journey by securing diverse internship opportunities at SIH. In total, five internships have been awarded. These internships provide them with invaluable practical experience and a chance to apply their computing knowledge in a real-world healthcare setting. Being interns at SIH, these students had the opportunity to work alongside experienced professionals, contributing to various departments and projects. Through their internships, they gain hands-on experience in healthcare information systems, medical data analysis, software development for medical applications, and other relevant areas. Internships at SIH serves as a bridge between classroom learning and professional practice thereby, preparing the students to become competent computing professionals in the domain healthcare.



# Shifa Asan Earning Program *Workshop*



Under the supervision of Engr. Muhammad Haris Farooq (Lecturer), the Department of Computing organized a practical workshop. This workshop aimed to provide valuable insights into earning opportunities through online platforms. Engr. Muhammad Haris, an experienced professional, shared his expertise and knowledge gained from his personal success in the online realm. With his astute skills, he has earned a commendable amount exceeding \$5000 across various online platforms.



The workshop offered an immersive experience in freelancing across renowned platforms such as Fiverr, Upwork, and Freelancer. This hands-on workshop aimed to inspire students to explore self-employment opportunities and earn online, effectively managing their daily expenses or supporting their university education.

At the culmination of the conducted freelancing practical workshop, an exciting opportunity unfolded as students were given the chance to bid on real projects. Demonstrating the efficacy of the workshop, one student emerged victorious by winning a project. This success story highlights the tangible outcomes and practical skills acquired through the workshop. This achievement not only reflects the students' dedication and grasp of the subject matter but also underscores the workshop's effectiveness in preparing them for successful freelancing endeavors.

STMU has initiated an innovative program tailored for the new generation of freelancers and entrepreneurs called the "Shifa Asan Earning Program (SAEP)". This program empowers students to embark on the path of online earning. Through SAEP, students receive real-time projects sourced from the online market and are tasked with delivering high-quality results within tight deadlines. By participating in this program, students not only can gain valuable skills and experience but can also earn a stipend. SAEP is designed to benefit the faculty, students, and STMU itself. As the program grows, it will expand its tutorial sessions to further enhance the online earning capabilities and overall development of the students.

# MoU with Urdu IT Academy



A significant collaboration took place on August 22, 2022, as Urdu IT Academy and STMU joined hands through a MOU. Mr. Kashif Iqbal (founder) represents Urdu IT Academy. This MOU marked the formalization of a partnership between the two organizations, with a shared objective of fostering IT, AI, and cyber security innovation in the healthcare sector of Pakistan. This agreement solidified their commitment to collectively develop innovative solutions, leveraging the power of technology to enhance and revolutionize the IT landscape within the healthcare industry.

Urdu IT Academy, a free e-learning charitable platform has emerged as a prominent player in the realm of learning. It had showcased the technological expertise by developing an advanced Quiz Engine. This quiz engine serves as a powerful tool for assessments, evaluations, and interactive learning experiences. Moreover, it allowed the users to create and take quizzes on various subjects that provided an engaging and effective way to test knowledge and enhance understanding. Prof. Dr. Tanvir Afzal, an esteemed academic advisor, plays a pivotal role as being academic consultant of Urdu IT Academy and undertaken the mentorship of developing a Quiz Engine.



This workshop was conducted by the esteemed Mr. Kashif Iqbal, an accomplished Cyber Security specialist with a distinguished career at leading international organizations. Mr. Kashif is a graduate from University of Cambridge and University of West London. He currently serves as as Director of Corporate Technology and Cyber Security at SEGA Europe. Mr. Kashif's vast experience extends to mentoring numerous PhD and MS theses at prestigious UK universities.

## Modern Cyber Landscape & Career in Cyber Security

On August 22, 2022, an enlightening workshop titled "The Modern Cyber Landscape & Career in Cyber Security" held at the Park Road Campus of STMU. This workshop proved to be a resounding success, attracting a diverse audience comprising industry professionals specializing in cyber security, IT administrators, and prominent faculty members of twin cities eager to delve into the realm of cyber security. Notably, the participants hailed from other universities, including COMSATS, FAST-NUCES, and Air University and industrial partners, bringing together a rich blend of expertise and enthusiasm.

During the workshop, the participants were immersed in a comprehensive exploration of the modern cyber landscape and the diverse career opportunities available in the field of cyber security. Through engaging discussions, real-world case studies, and practical insights shared by Mr. Kashif Iqbal, the attendees gained valuable knowledge and insights into this rapidly evolving domain.



# Make YouTube Like Apps in Two hours using Drupal

## Hands On Workshop



On August 22, 2022, Shifa Computing Society organized a Drupal training workshop at the Park Road Campus of STMU in Islamabad. Drupal, a powerful open-source Content Management System and Web Development Framework, offers a flexible and scalable infrastructure suitable for a wide range of projects, from simple websites to complex web applications. The focal person of the workshop was Mr. Muhammad Iqbal Sheikh, a senior Drupal developer with 12 years of experience. Currently, he is serving as Drupal senior web developer at Land Portal, Amsterdam, Netherlands. With expertise in Drupal bootstrap and responsive website development, Mr. Muhammad Iqbal shared valuable insights and techniques for building Drupal 7 and Drupal 8 themes.

During the workshop, the attendees learned about the capabilities of Drupal and its potential applications. They were introduced to various features and functionalities, exploring how Drupal can be leveraged to build dynamic and engaging websites and applications.

Several popular apps and websites have been successfully developed using Drupal. The examples are: Economist Espresso, a news app; Timex, a commerce platform for watches; Dallas Cowboys, a platform for fans to connect; Care International UK, an international NGO; and Red Hat, a website for open-source software.

Diverse audience, comprised of senior faculty, principles and students from different colleges, appreciated the knowledge gained during the workshop, recognizing the potential of Drupal for their future projects and endeavors. This event provided a platform for learning and exploration, equipping attendees with the skills and understanding to harness Drupal's capabilities for their web development needs.



# Creation of a Line Follower Robot Workshop

## Workshop



The Department of Computing at STMU organized a workshop centered on the theme of "Creation of a Line Follower Robot." This session witnessed active participation from faculty members and students of STMU.

During this workshop, Engr. Muhammad Haris enlightened the students on the fundamentals of Robotics, exploring its core mechanisms, and discussed the future prospects and applications within the field.

The workshop provided a comprehensive understanding of building and operating a Line Follower Robot. The students were introduced to the practical aspects, starting with a detailed explanation of how to use microcontrollers and program them effectively. The presenter guided them in selecting the appropriate body for the robot including the wheels and motors necessary for its functioning. An essential segment of the workshop focused on programming the robot that covered every basics of the programming languages ensuring that the students gained a solid foundation in this crucial aspect was the main goal of the presenter.

A sample robot code was shared that enabled the students to observe how programming is applied to control the robot's actions. Using the software "Proteus", the students were able to perform all project operations without the need to purchase hardware components. This demonstration emphasized the importance of programming skills, software simulations, research, and automation in the field of robotics.



# Welcoming Honorary Professorship:

*Prof. Dr. Ijaz Shafi Gillani  
Joins STMU as an Esteemed  
Honorary Professor*



We are delighted to announce that Prof. Dr. Ijaz Shafi Gilani has joined STMU as an honorary professor, who holds the distinction of being the first Pakistani graduate of the Massachusetts Institute of Technology (MIT). MIT is a research university established in 1861 and ranked as one of top IT University. Prof. Dr. Gilani has an illustrious career, serving as a Professor and Dean of the Faculties of Social Sciences and Management Sciences at the International Islamic University, Islamabad, and the Founder and Chairman of Gallup Pakistan. With an honorary senior fellowship at the Pakistan Institute of Development Economics, Islamabad, Prof. Dr. Ijaz Shafi Gilani brings a wealth of knowledge and experience to his role. He also served as an Adviser to the Prime Minister and chaired the Prime Minister's Committee for Research and Analysis, an in-house think tank that he established at the Prime Minister's Secretariat.



We anticipate that he will play a crucial role in further enhancing the academic and intellectual environment at STMU with his diverse personality. Extending our warmest welcome to Prof. Dr. Ijaz Shafi Gilani, looking forward to the positive impact he will undoubtedly have on STMU.

**What  
Our  
Students  
Say  
About  
Us?**



**MR. AHMAD LAK**

Semester 3

STMU taught me how to live a confident life emended with chasing goals and the willingness to accept new ideas and ideologies. With a diversity of variations in the computing field, the institute focuses not only on self-grooming but holds weekly workshops reflecting the market activities and is a set ahead to prepare us for international interactions and achievements.

# The Student's Societies



## Shifa Computing Society

Shifa Computing Society was constituted on February 7, 2022 with the main underlying intention of conducting curricular and co-curricular activities in the Department of Computing. The society Convener Mr. Muhammad Saqib supervises all events and also selects other members of the Society representing students of the Computing department.



### Members:

Convener: Mr. Muhammad Saqib (Senior Lecturer, Dept. of Computing, STMU)

President: Mr. Abdul Munam

Secretary: Mr. Shahzada Fathurrahman

The core objectives of Computing Society are listed as follows:

- To provide professional development opportunities essential to enhance the student's skills and knowledge in computing through educational programs, and competitions.
- To facilitate networking and collaboration among students in the computing field. The computing society creates platform for members to connect, exchange ideas, share experiences, and collaborate on projects.
- To establish and promote ethical standards and best practices in computing.
- To collaborate with industrial partners to bridge the gap between academia and industry. The computing society facilitates internships, job placements, and industry-academia partnerships to foster practical application of computing knowledge and enhance career opportunities for the members.



## Success Story of Ms. Rinad Anwar



Semester 6th

Witness the extraordinary journey of Ms. Rinad, a true testament of the power of education and passion. Stepping away from MBBS, she fearlessly embraced the world of Computer Science, unveiling a world of boundless possibilities. Today, Rinad shines at Systems Limited, a prestigious software house, where her coding brilliance and innovative mindset drives groundbreaking solutions. Her power extends beyond coding, as she masters the art of design with expertise in Figma. Rinad's story serves as a powerful inspiration to all dreamers. Join STMU, where we foster brilliance and ignite possibilities. Embark on your extraordinary path – apply now!

# The Student's Societies



## Shifa Robotics Society

A student-run society dedicated to fostering interest and education in the field of robotics among the STMU students was established on March 10, 2023. It mainly focuses on providing hands-on learning opportunities, conducting workshops, and organizing national-level events that permits the students to gain valuable experience in the field of robotics. The society is led by an executive team comprising of all the main hierarchy members.



### Members:

Convener: Engr. Muhammad Haris Farooq  
(Lecturer, Dept. of Computing, STMU)  
President: Mr. Ali Imran Chauri  
Secretary: Mr. Abeer Ghafar

The main objectives of Robotics Society are:

- To organize events and lectures on the latest developments in robotics and related fields.
- To foster collaboration and networking among students interested in robotics and related fields.
- To provide mentorship and guidance for students who are interested in pursuing a career in robotics, AI and related fields.

## Success Story of Mr. Shahbaz



Semester 3rd

In the bustling halls of STMU, Mr. Shahbaz's passion for programming ignited a spark of entrepreneurial ambition. He was able to turn his aspirations into a successful reality by taking advantage of the cutting-edge instruction and counsel offered by our outstanding staff. Shahbaz boldly founded his own tourism company in his third semester of college, embarking on a wonderful adventure to arrange unique excursions and experiences. Shahbaz is a shining example of the transformational power of education and the limitless possibilities awaiting our students after establishing a solid academic grounding in relevant subjects at our university. Come study with us at STMU and see your dreams take flight as we provide the tools to make your own way.

# The Student's Societies



## Shifa Freelancing Society

Shifa Freelancing Society was established on April 19, 2023 with a main focus of providing the knowledge to select the projects (as per their skills), clients, and work schedule; ultimately, allowing a better work-life balance. Mr. Amer Zaheer supervises all events and conducts workshop for a broader skill set to foster the freelancing-related knowledge essential for professional growth.



### Members:

Convener: Mr. Amer Zaheer (Senior Lecturer, Dept. of Computing, STMU)

President: Mr. Abdullah

Secretary: Mr. Ahmad Mumtaz

The core objectives of Freelancing Society are listed as follows:

- To provide resources and guidance on various aspects of freelancing including client acquisition, project management, marketing, contracts, and financial management.
- To offer resources, training, and educational opportunities to help the members in enhancing their skills, stay updated with industry trends, and improve their business acumen.
- To facilitate the exchange of knowledge, best practices, and insights among members; thereby, promoting professional growth and learning.
- To recognize and celebrate the achievements and contributions of members through awards and accolades.

## What Our Students Say About Us?



### MS. MUSKAN QURESHI

Semester 2nd

STMU is one of the best institutes with highly educated teachers, a place where practical work is the first preference. With highly educated faculty members the knowledge delivered here holds no bounds; an institute where etiquette and mannerism runs through the veins and the walls. STMU is a home away from home.

# SUCCESS IN THE DIGITAL AGE: Learn, Connect, Excel with E-Commerce Leaders & Entrepreneurs!



On April 13, 2023, the Department of Computing, in collaboration with **Connected Pakistan**, conducted an interactive session on "**Success in the Digital Age**" at STMU Park Road Campus, Islamabad. This initiative reflects their commitment to youth development and introducing new implementations for constructive outcomes.

The session aimed to inspire youth by showcasing successful CEOs who have contributed to various aspects of the digital landscape including connectivity, digital solutions, coding, education, and craftsmanship. The attendees had the opportunity to learn their secrets, principles, and how they motivated over 100,000 young people to achieve financial success. The remarkable invited presenters built million-dollar businesses through hard work, strategic planning, and unwavering dedication to their vision. The workshop featured notable industry professionals:

1. Ms. Lubna Ali (CEO of Digital Essential Pakistan)
2. Ms. Ansa Javed (Data & AI Technical Sales Specialist)
3. Mr. Fahad Murtaza (CEO of ISuperCoder/Gravixar UAE)
4. Ms. Dania Khan (Founder of Dankash)
5. Mr. Yasir Sharar (CEO of HandMade Mafia)



This session provided a platform for students and young professionals to acquire the skills and strategies necessary for success in the digital age. The attendees gained insights from industry experts, networked with like-minded individuals, and explored new implementations in technology and computing. This workshop effectively bridged a gap between academia and industry, fostering a collaborative environment for sharing knowledge and developing practical skills.



# LIFE AT STMU

STMU offers a vibrant and enriched learning environment, where students embark on a journey of personal growth and academic excellence. Life at STMU is characterized by a perfect blend of rigorous learning, diverse co-curricular activities, and a supportive community. The students are provided with state-of-the-art facilities and resources to foster a learning environment conducive to holistic development.

Inside the classrooms, the students engage in interactive sessions, facilitated by experienced faculty members who are dedicated to imparting knowledge and nurturing critical thinking skills. The curriculum is designed to be rigorous yet comprehensive, ensuring students to gain a deep understanding of their chosen fields.

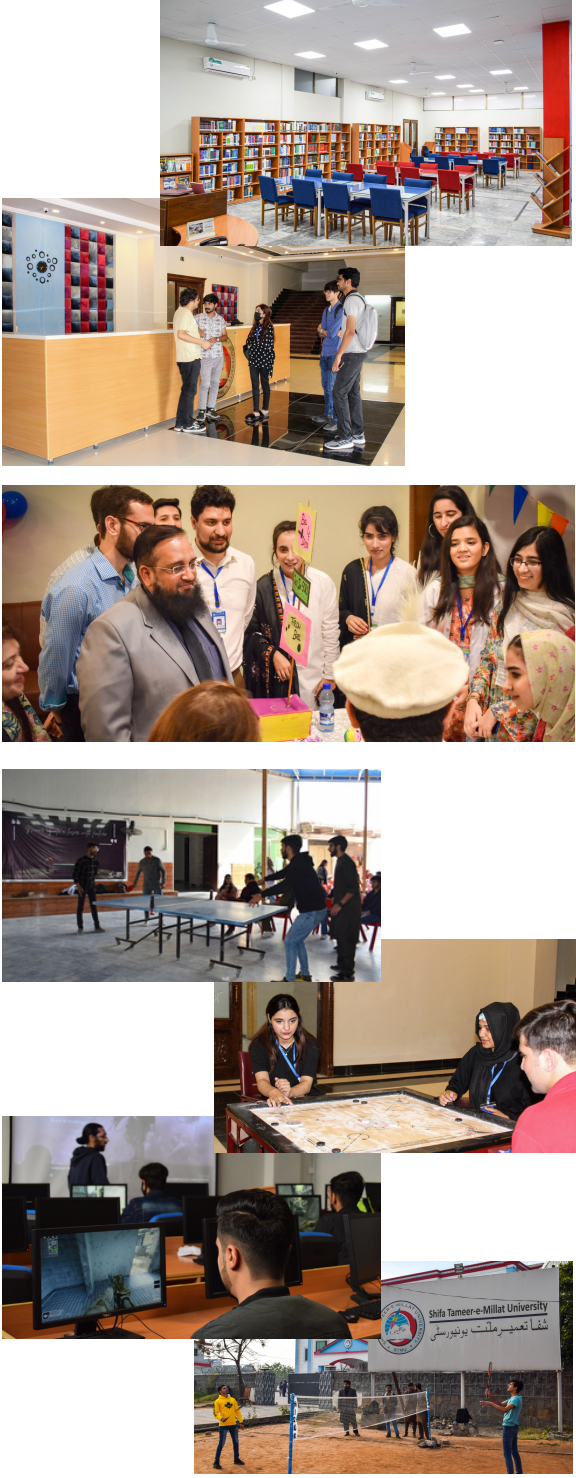
Beyond academics, STMU offers numerous opportunities for extracurricular involvement. Students can participate in clubs, societies, and student-led initiatives that cater to a wide range of interests including sports, arts, culture, and community service. These activities not only promote personal growth but also foster leadership skills and a sense of social responsibility.

The campus itself provides a welcoming and inclusive atmosphere, with modern infrastructure and well-maintained facilities. Libraries, laboratories, research centers, and other academic resources are readily available, enabling students to excel in their studies and pursue their research interests.

STMU also emphasizes the importance of holistic well-being. Various support services are in place to address the physical, mental, and emotional well-being of students. Counseling services, health clinics, and recreational facilities are provided to ensure a nurturing and balanced environment.

Additionally, the university organizes seminars, workshops, and guest lectures, inviting experts from various fields to share their knowledge and insights. These events foster intellectual curiosity and facilitate networking opportunities for students to connect with professionals in their respective industries.

Overall, life at STMU offers a comprehensive and enriching experience, empowering students to become well-rounded individuals equipped with the knowledge, skills, and values to make a positive impact in the society.





# MoU

## Empowering Financial Opportunities: Collaborating with Ihsan Trust for Interest-Free Loans

The signing of a MoU between **STMU** and **Ihsan Trust** signifies a major milestone in facilitating interest-free loans for students. This collaborative effort reflects their shared dedication to promoting equal access to education and alleviating financial burdens. The partnership between STMU and Ihsan Trust stands as a commendable initiative that aims at empowering the students by eliminating financial barriers that may hinder their academic aspirations. By providing interest-free loans, this pioneering collaboration ensures that deserving students have the opportunity to pursue their educational dreams, unburdened by the constraints of traditional interest-based loans. This transformative step highlights the commitment of STMU and Ihsan Trust to foster an inclusive and accessible educational environment, where every student has an equal chance to thrive and succeed.



# Scholarship and Hostel

## *Details*



STMU is committed in recognizing and supporting the exceptional academic achievements of its students through the Merit-Based Scholarship program. This scholarship serves as a testament to the university's commitment to nurturing and encouraging brilliant minds. The students who attain an impressive 85% or above in their Higher Secondary School Certificate (HSSC) examinations are eligible for this prestigious scholarship. By meeting this criterion, the students receive a remarkable benefit - 100% waiver of their tuition fees. This significant financial relief allows them to focus on their studies and pursue their academic goals without the burden of tuition expenses.

To retain the Merit-Based Scholarship, the students must maintain a specified Cumulative Grade Point Average (CGPA) throughout their academic journey at STMU. This requirement ensures that scholarship recipients maintain a consistent level of academic excellence and dedication to their studies. By maintaining a strong CGPA, the students not only continue to receive the financial benefits of the scholarship but also uphold the high academic standards set by STMU.

In addition to the Merit-Based Scholarship, STMU has collaborated with Ihsan Trust to provide another valuable opportunity for students in the form of interest-free loans. This scholarship program acknowledges the financial challenges that students may face while pursuing their education. By offering interest-free loans, sponsored by Ihsan Trust, STMU provides students with the means to fund their education without the burden of accumulating interest on their loans. This initiative ensures that deserving students have access to the financial resources they need to achieve their academic goals while alleviating the stress of student loans.

Looking ahead, STMU is committed to expanding its scholarship offerings in the future. With the goal of supporting a greater number of students, the university has additional scholarships in the pipeline. These forthcoming scholarships will further empower students and provide them with more opportunities to pursue their education with financial ease. STMU's dedication to providing a supportive and inclusive educational environment is reflected in its ongoing efforts to enhance scholarship programs and ensure that deserving students have access to quality education and equal opportunities for success.

STMU offers convenient and comfortable hostel facilities for students, located in the I-8 and H-8 sectors. These well-equipped hostels provide a welcoming and supportive environment for students to reside during their academic journey. Additionally, the students have the option to avail themselves of the hostel facilities in Hostel City, which is conveniently located just a few steps away from the Park Road campus. This proximity ensures that students can easily access their classes, library, and other campus resources, while enjoying the benefits of a secure and conducive living environment. The hostels are designed to provide students with a sense of community and promote a healthy work-life balance, offering amenities that cater to their daily needs and fostering a vibrant social atmosphere. STMU's commitment to providing comfortable hostel facilities underscores its dedication to creating a holistic and enriching experience for its students, supporting their personal and academic growth throughout their time at the university.


A graphic of a piece of light brown paper with a yellow paperclip, pinned to a dark blue background. The text 'Professional Engagements' is written on the paper in a dark blue, handwritten-style font.

# Professional Engagements

Three horizontal, wavy yellow lines on the left side of the page.

**Prof. Dr. Muhammad Tanvir Afzal** received the PhD degree with highest distinction in Computer Science from the Graz University of Technology, Austria, secured Gold medal in his M.Sc Computer Science from Quaid-i-Azam University, Islamabad, Pakistan. He has been associated with academia and industry at various levels for the last 20 years, and currently he is serving as Director and Professor, at Department of Computing, Faculty of Computing and Director Campus at one of the largest campus of Shifa Tameer-e-Millat University at park Road Islamabad, Pakistan. Previously, he has served Namal Institute Mianwali as Director (QEC) and Professor. He has served Capital University of Science and Technology, Islamabad as Professor, Associate Professor, and Assistant Professor of CS. Furthermore, he has served NESCOM, COMSATS University Islamabad, and JinTech Islamabad. He is also serving as editor-in-chief for reputed impact factor journal known as: Journal of Universal Computer Science. Dr. Afzal authored more than 125 research papers including over 60 published papers in impact factor leading journals in the field of Artificial Intelligence, Data Science, Information retrieval and visualization, Semantics, Digital Libraries, and Scientometrics. He has authored two books and has edited two books in Computer Science. His cumulative impact factor is 140+, with citations over 1,500. He played pivotal role in making collaborations between STMU-JUCS, MAJU-JUCS, MAJU-IICM, and TUG-UNIMAS. He served as PhD symposium chair, session chair, finance chair, committee member, and editor of several IEEE, ACM, Springer, Elsevier international conferences and journals. Dr. Afzal conducted more than 100 curricular, co-curricular, and extra-curricular activities in the last 5 years including seminars, workshops, national competitions (ExcITeCup) and invited international and national speakers from Google, Oracle, IICM, IFIS, SEGA Europe etc. Under his supervision, more than 70 post grad students (MS and PhD) have defended their research theses successfully and a number of PhD and MS students are pursuing their research with him. He served as Master trainer and a program director at a national level training for a public sector organization in Pakistan on Human Factors Engineering and conducted the training of over 150 hours for experts from the industry. He has trained senior management of over 15 companies on Digital Transformation, Data Analytics for Leaders, HR Analytcs, Sentiment Analysis, Artificial Intelligence. He is the recipient of multiple international research funding.

**Dr. Majid Mumtaz** have provided cyber security consultancy services to national and international clients in a comprehensive way to protect their digital assets from evolving cyber threats. For national clients, the unique challenges faced within the country's regulatory framework and industry-specific requirements, especially when we talk about the health sector or academia. On a national level, social media poses multiple challenges to our younger lot like cyberbullying or cyber espionage etc. In health/academia as a cyber-security expert, Dr. Majid have conducted extensive assessments of their digital infrastructure, identified vulnerabilities, and developed robust strategies to mitigate risks including network security, data protection, incident response planning, and employee awareness training. The goal was to strengthen their cyber security posture, ensuring the confidentiality, integrity, and availability of their sensitive information. When it comes to international clients, he has provided tailored cyber security consultancy solutions remotely that are aligned with international standards and best practices including threat intelligence analysis, implement advanced security controls, and assist in building resilient cyber security frameworks.


A yellow starburst graphic in the bottom right corner of the page.



## Professional Engagements


**Dr. Saif Ur Rehman Khan** is an accomplished professional who has provided exceptional research services to students from various prestigious universities including COMSATS University Islamabad (CUI) and FAST-NUCES. Over the course of the year 2022 to the present, he has successfully supervised more than 40 MS theses in the field of Software Engineering that demonstrates his expertise and commitment to academic excellence. In addition to his research contributions, Dr. Saif has actively served as the Program Chair for several international conferences including 22nd IEEE QRS 2022 and 11th WCIST 2023. This significant role highlights his dedication to fostering a platform for the exchange of cutting-edge research and ideas in the field. Furthermore, Dr. Saif has also made valuable contributions as a Technical Program Committee member for various national and international conferences including 24th IEEE INMIC'22, 19th IEEE FIT'22, 4th ComTech'23, EASE'23, and DEXA'23. Dr. Saif Ur Rehman Khan's expertise has also been recognized by numerous top-ranked journals in the field. He has served as a reviewer for esteemed high-impact factor journals such as Future Generation Computer System, Soft Computing, Journal of Systems and Software, Applied Soft Computing, Information and Software Technology, Journal of Software Evolution and Process, Software Testing, Verification and Reliability, IT Professional, Software Quality Journal, and Automated Software Engineering. His role as a reviewer showcases his meticulous attention to detail and his dedication to ensuring the quality and rigorousness of scholarly work.

**Mr. Amer Zaheer** is a highly skilled professional offering freelance services and consultations in the dynamic fields of computer networks and cyber security. With an extensive range of expertise, he provides a comprehensive suite of services to both local and international clients. His areas of specialization include network design, configuration, troubleshooting, ethical hacking, vulnerability testing, and risk management. As an esteemed member of the Office of Research, Innovation, and Commercialization (ORIC) at Capital University, Mr. Amer Zaheer has conducted multiple Ethical Hacking trainings. Through these training sessions, he shared his wealth of knowledge and expertise, equipping individuals with valuable skills for their professional endeavors. His dedication to promoting responsible cyber security practices is evident in his efforts to educate and provide tools to organizations, helping them safeguard their systems against malicious attacks. Mr. Amer Zaheer holds the esteemed certification of Huawei Certified ICT Associate (HCIA) with a specialization in Routing and Switching. His commitment to professional growth is demonstrated by his successful completion of the Huawei train-the-trainer program in March 2022. This achievement further solidifies his expertise and qualifies him as a certified Huawei Certified ICT Associate in Routing and Switching.





## Professional Engagements



**Mr. Sana Ullah** is a highly qualified professional with certifications as a Cisco Network Associate (CCNA) and Cisco Network Professional (CCNP). With a commendable track record, Mr. Sana Ullah has made significant contributions to the well-reputed ISP, Wi-tribe, located in the twin cities. As a technical head, he plays a crucial role in providing exceptional technical services to high-profile individuals, including foreign ambassadors' residences and offices. Mr. Sana Ullah's responsibilities encompass a wide range of IT-related tasks, such as network support, installation and updating of internet devices, and troubleshooting PCs and laptops. His extensive hands-on experience in installing Point-to-Point (P2P) connections at various organizations in Islamabad further solidifies his expertise in network infrastructure. As a Certified Cisco Network Professional, Mr. Sana Ullah possesses a deep understanding of advanced networking concepts and solutions. This knowledge enables him to offer reliable and efficient technical support to ensure smooth operations.

**Mr. Muhammad Saqib** embarked on his professional journey at Netsolace Inc., Islamabad office, a multinational company. Throughout his three-year tenure, he excelled as a Network Engineer and later took on the responsibility of leading the Network Support team. His exceptional skills and expertise were instrumental in effectively managing and optimizing the network infrastructure for over 1500 locations of Edible Arrangements across the United States and Canada. Muhammad Saqib has consistently demonstrated his commitment to professional growth by acquiring specialized training and certifications, including CCNA, CCNP, MCSE, and TMG. These qualifications have enabled him to develop comprehensive expertise in network administration and security. Furthermore, he has gained valuable experience working with renowned firewall systems such as SonicWall and Palo Alto, which further strengthens his ability to create and maintain secure network environments. Mr. Saqib's notable achievements serve as a testament to his capabilities. As part of a dedicated team effort, he successfully deployed a RUCKUS managed WiFi solution at prestigious locations like the Prime Minister House in Islamabad and the PTA office in Islamabad. These projects highlight his ability to deliver effective networking solutions even in high-profile settings. Moreover, Mr. Saqib has generously shared his knowledge and expertise by conducting network training sessions at Riphah International University in Islamabad, contributing to the development of aspiring networking professionals. Additionally, his expertise and insight have been sought after in evaluating numerous BS Final Year projects at COMSATS Islamabad. This involvement showcases his dedication to nurturing future talent and supporting the growth of the networking field.



## Professional Engagements

**Mr. Saad Ilyas** has an impressive track record of projects showcasing his expertise and dedication to advancing knowledge and innovation. One notable project involves validating the Beat-to-Beat AI algorithm developed by the esteemed Stanford team, which utilizes deep neural networks to accurately estimate Left Ventricular Ejection Fraction. This validation process includes applying the algorithm to four chamber ECHOs of patients at SHIFA INTERNATIONAL HOSPITAL; thereby, paving the way for improved efficiency in ejection fraction estimation. Additionally, Mr. Saad collaborates with the Psychology Department at STMU on an innovative Android Apps designed to assist in controlling anger and promoting emotional well-being among individuals. This interdisciplinary project demonstrates highlights Mr. Saad's versatility and commitment to address complex societal challenges through the integration of technology and psychology. He actively shares his expertise through engaging workshops (e.g., Android application development) and mentorship, fostering the growth of aspiring developers and leaving a commendable impact.

**Mr. Abdullah** is a highly skilled professional who offers technical services to a range of national and international organizations. One notable example of his work is his contribution to UrduIT Academy (UITA), where he has played a key role in developing training materials and video tutorials for JavaScript software stack, particularly MERN. UITA Academy is a renowned online platform that provides free technology training without the need for physical classrooms. It boasts an impressive subscriber base of 63.7k, which highlights its popularity among the users. In addition to his work with UITA, Mr. Abdullah also provides comprehensive full-stack developer services to two prominent UK-based companies, namely Sunrise Energy Solutions ([sunriseenergysolutions.uk](http://sunriseenergysolutions.uk)) and Hi Domestic Electricals ([hidomesticelectricals.uk](http://hidomesticelectricals.uk)). His primary responsibilities involve the development, deployment, and maintenance of their websites. He excels in configuring domain settings for email services and ensures the establishment of professional communication channels. Moreover, Mr. Abdullah's expertise extends to server-side management of Amazon Web Services (AWS). He collaborates with a Mexico-based organization where his primary focus lies in creating and managing EC2 instances. He demonstrates proficiency in granting developers' access using FTP and RDP protocols to deploy web applications. Additionally, he takes charge of maintaining a conducive environment for the development of web applications including PHP and .NET.



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<https://doi.org/10.1007/s10515-022-00371-9>
2. G. Mustafa, A. Rauf, A. S. Al-Shamayleh, M. Sulaiman, W. Alrawagfeh, **M. T. Afzal**, A. Akhuzada: "Optimizing Document Classification: Unleashing the Power of Genetic Algorithms", *IEEE ACCESS – 11*, 2169–3536, 2023 (IF: 3.476)  
<https://doi.org/10.1109/ACCESS.2023.3292248>
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9. M. Asmat, **S.U.R. Khan**, and S. Hussain, "Uncertainty Handling in Cyber-Physical Systems: State-of-the-Art Approaches, Tools, Causes, and Future Directions", *Journal of Software: Evolution and Process (Special Issue: Cyber Security)*, Vol. 35, Issue. 7, 2023. (IF 1.864)  
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<https://doi.org/10.1109/QRS-C57518.2022.00093>
23. **A. Nazir** and Y. Rao, "IAOTP: An Interactive End-to-End Solution for Aspect-Opinion Term Pairs Extraction", ACM SIGIR International Conference on Research and Development in Information Retrieval (SIGIR'22), pp. 1588-1598, Madrid, Spain, July 11 - 15, 2022.  
<https://doi.org/10.1145/3477495.3532085>

\*The Complete List of Publications have been Discarded due to Space Constraints.



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