



IEEE  
COMPUTER  
SOCIETY

BRACU Student Branch Chapter



IEEE COMPUTER SOCIETY  
BRAC UNIVERSITY STUDENT BRANCH CHAPTER

# NEWSLETTER 2022

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# NEWSLETTER 2022

VOLUME 04

A yearly newsletter from  
**IEEE COMPUTER SOCIETY**  
**BRAC UNIVERSITY SBC**

VOLUME 04

ISSUE 01

DATE 31 DECEMBER 2022



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## ABOUT IEEE BRACU STUDENT BRANCH

The journey of IEEE BRAC University Student Branch started on the 6th of July, 2008. From the very beginning, the student branch is trying to operate its activities with utmost professionalism and is very dedicated to advancing technology for the benefit of humanity. Its recent achievement is winning "IEEE Regional Best Exemplary Student Branch Award 2020" for exemplary performance as an active IEEE Student Branch offering technical programs, activities, professional networking opportunities that enables members in building critical skills.

## WORDS FROM THE COUNSELOR

IEEE Computer Society Brac University Student Branch Chapter (SBC) is the largest and one of the most active branch chapters under the banner of the IEEE Brac University Student Branch. Founded in 2019, this chapter has managed to make a mark and gain the attention of a remarkable number of students at the university. This chapter has been dedicated towards thriving for consistency in arranging various events which cater well to the needs of the enthusiastic learners since its inception for which it has received the prestige of being the Most Promising CS Student Chapter awarded by IEEE Computer Society Bangladesh Chapter in 2021.

This year, post COVID-19 era, the IEEE CS SBC along with the other chapters effortlessly adapted from the online activities. Along with organising multiple on-campus seminars, the Computer Society Chapter took a step ahead and executed its first ever industry visit to provide the members with an opportunity to learn about the growing software industry from the leaders themselves. I would like to appreciate the efforts of the dynamic Ex-com members and their Chapter Advisor for their dedication and perseverance towards the cause of technological and professional development of the student body as it gives me immense delight to see such wonderful activities thrive under my guidance.

**Prof. AKM Abdul Malek Azad**  
Counselor, IEEE BRACU Student Branch

## WORDS FROM THE CHAIR

When I assumed the role as the Chair of the IEEE Computer Society Brac University, I was just a computer science enthusiast looking out for opportunities to widen the scope of research and skill development through building a like-minded community. As the tenure ends, I am delighted to be able to stick to my vision and get on-board over 170 members as well as organise multiple insightful events including the first ever industrial visit of the chapter. I am utterly grateful to my honourable Chapter Advisor for guiding me throughout the tenure and my fellow chapter executives Atanu Roy, Silma Binta Shoeb and GM Arafat Rahman for always having my back in our endeavours. I am also thankful for the unwavering support of our respected Counsellor, our entire Executive Body, and our student members. I hope that the forthcoming executives and members will continue to elevate the scope of the Computer Society and take it to greater heights.

**Azwaad Labiba Mohiuddin**  
Chair, IEEE BRACU Student Branch CS Chapter

## WORDS FROM THE ADVISOR

IEEE Computer Society Brac University Student Branch Chapter (SBC) was founded on April 9th, 2019 to establish a community of young computer science enthusiasts of Brac University. The primary focus of this is to create a network for the professional development of like-minded individuals. The chapter started its journey with a member body of 23 members, and went on to become the chapter with the most members in the IEEE Brac University Student Branch. This year the member count surpassed 175. In the 4 years of its existence, this chapter has always attempted to put forth its contributions towards the growth and betterment of a computer science community. Even during the pandemic, the student body took necessary measures to conduct the activities online with active zeal to aid and attract an audience interested in the field. In recognition and appreciation for that, we received the “Most Promising CS Student Chapter” award for the valuable contribution to IEEE Computer Society Bangladesh Chapter in 2021. This year we made a smooth transition from online to offline activities and managed to gain an equally enthusiastic audience. It is a delight for us to observe and guide such an energetic and passionate group of students towards achieving professionalism and self development.

**Mr. Annajiat Alim Rasel**

Chapter Advisor, IEEE BRACU Student Branch

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# IEEE COMPUTER SOCIETY BRAC UNIVERSITY STUDENT BRANCH CHAPTER

## EXECUTIVE BODY PANEL - 2022



**MR. ANNAJIAT ALIM RASEL**

CHAPTER ADVISOR

SENIOR LECTURER

DEPT. OF CSE

BRAC UNIVERSITY



**Azwaad Labiba Mohiuddin**

**CHAIR**



**Atanu Roy**

**VICE CHAIR**



**Silma Binta Shoeb**

**SECRETARY**



**G.M. Arafat Rahman**

**TREASURER**

**IEEE COMPUTER SOCIETY**  
**BRAC University Student Branch Chapter**

**SEMINAR**



**WEBINAR**

# A seminar on “Impact of Quality Research”

01



**IEEE  
COMPUTER  
SOCIETY**  
BRACU Student Branch Chapter

Seminar on  
**IMPACT OF QUALITY RESEARCH**

			
<b>Dr. Md. Golam Rabiul Alam</b> Professor Department of CSE BRAC University	<b>Dr. Mohammad Kaykobad</b> Distinguished Professor Department of CSE BRAC University	<b>Dr. Md Sadek Ferdous</b> Associate Professor Department of CSE BRAC University	<b>Dr. Farig Yousuf Sadeque</b> Assistant Professor Department of CSE BRAC University

November 19th, 2022 | Brac University | 5:00 PM

On November 19, 2022, the IEEE Computer Society Brac University Student Branch Chapter organized a seminar on the "Impact of Quality Research", with the objective of acknowledging the scarcity of required information during the early stages of research and providing beneficial resources for the successful completion. Independent of major, anyone who wants to pursue higher education recognizes that research is a crucial component on the path to success. The undergraduate thesis is merely a glimpse down that passage. As a result, the first steps are uncomfortable and fraught with uncertainty. The goal of this seminar was to help students navigate the challenge that awaits them all as they enter their final year. The speaker's panel for this seminar included, Dr. Mohammad Kaykobad, Distinguished Professor (CSE, Brac University);

Dr. Md. Golam Rabiul Alam, Professor (CSE, Brac University); Dr. Md Sadek Ferdous, Associate Professor (CSE, Brac University) and Dr. Farig Yousuf Sadeque, Assistant Professor (CSE, Brac University). Coming together of such genius minds was not only groundbreaking but also unforeseen. To indulge themselves in the sparkle of knowledge these bright minds had to offer 100+ graduate and undergraduate engineering students graced the audience rows.

The very first speaker from the distinguished panel was Prof Dr. Mohammad Kaykobad. He started first sharing his glorious work days in Russia and his encounter with brilliant student minds all around the world.

## A seminar on “Impact of Quality Research”

01

As celebrated as he is for sharing his unconventional and fun yet educational stories, leaving the audience entangled in provoking thoughts, this time wasn't any different. Rather than indulging into topics or any specific theoretical concept he shared his precious knowledge on the entirety of conducting well-thought research. He implied a dedicated emphasis on starting the research rather than dwelling on the thoughts of unnecessary uncertainty. He additionally emphasized sharpening the writing skills as presentation is equally important as the actual process. Utilizing the available resources is also a vital part of the successful completion of the process, which includes reaching out to professionals, faculties, or any individual concerning that area, he concluded.

Thereafter, distinguished Professor Golam Rabiul Alam, who's been well acknowledged by students for his incredible in-depth knowledge of emerging technologies Machine Learning, Deep Learning as well as Artificial Intelligence, graced the audience by sharing his expertise. He illustrated the current

research he's contributing to along with bright students of graduate and undergraduate studies. He tried to explain the complex algorithms, and layered models in an understandable way encouraging them to take interest utilizing such tools. His works in Convoluted Neural Networks, and Deep Learning algorithms had everyone in total awe of admiration. Then the stage was lit up by the presence of Associate Professor Dr. Md Sadek Ferdous. He enlightened the audience on Blockchain technology and the top research being done in this area. Blockchain is a distributed, unchangeable ledger that facilitates the ability to record transactions and track assets within a business network. The terminologies were unfamiliar to many because it is a field of emerging technology. The specifics of this developing field were expertly explained by Sadiq. He added, the application blockchain now includes Supply chain, Healthcare, Government, Retail, Media and advertising, Oil and gas, Telecommunications, Manufacturing, Insurance, Financial services, Travel, and Transportation.



## A seminar on “Impact of Quality Research”

01

He has been working in this field for quite a while, so it is highly encouraged and welcomed for any student to choose to include it in their final thesis. A fresh breath of air in the intense, difficult information exchange was Assistant Professor Dr. Farig Yousuf Sadeque. As a recent Ph.D. graduate, Prof. Farig was best capable of empathizing and connecting with the students. He addressed the very dilemmas that each and every prospective student faces as they work on their senior thesis. Furthermore, he did a fantastic job of describing the entire brainstorming process, from ideation to completion to publication. He added something very enticing, saying that anyone starting a thesis should properly recognize what or why they are doing it and what challenges it solves before they begin. The eagerness to publish research is yet another prevalent trait among research students, addressing which he quoted, “Publication is not the ultimate goal of a research, it’s always a by-product’.

Then the discussion session concluded into the question-answer segment, and the stage was open for queries. The students were actively involved in the event’s successful conclusion. Addressing various segments throughout the event, students placed their thoughts and concerns and the gracious panel speakers gave prompt and considerate answers. Lastly, at the close of the day, our guests are presented with beautiful crests and refreshments and thanked heartily for their incredible contribution to making this seminar as a success as it was and for renouncing their precious time.



# A seminar on “Impact of Quality Research”

01



# A seminar on "Importance of Competitive Programming and an Introduction to IEEEXtreme"

02



**Seminar On**  
**Importance of Competitive Programming & An Introduction to IEEEXtreme**

**SPEAKERS**

**Dr. Mohammad Kaykobad**  
 Distinguished Professor  
 Department of CSE  
 Brac University

**Shaily Roy**  
 Lecturer  
 Department of CSE  
 Brac University

**JUNE 8TH, 2022**  
**5 PM-6 PM**  
**UB21913**

Organized By  
 

The IEEE Computer Society Brac University Student Branch Chapter organized a seminar titled "Importance of Competitive Programming and an Introduction to IEEEXtreme" on June 8th, 2022. The seminar was focused on understanding the basics of competitive programming as well as making the students aware of various coding contests around the world including the 24-hour long IEEEXtreme programming competition. This seminar turned out to be a successful event with more than 120 registrations and a participation of about 100 learners from Brac.

Competitive coding has always been a crucial part of Computer Science. It helps a learner to get a better hold of the programming basics and contributes to making them a better problem solver. It is a skill which challenges enthusiasts to solve mathematical as well as logical problems by focusing on writing efficient code in a short amount of time. The problems may range at different levels and may be solved with or without the application of data structures and algorithms. To master the skill of competitive programming not only does one need to practice hard and on a regular basis but also understand the tricks and tips

on how to get a better hold of it.

The Chief Guest for the seminar was computer scientist, educator, author, and columnist, Dr. Mohammad Kaykobad who is currently serving as a Distinguished Professor at Brac University. He is a pioneer in introducing competitive programming to Bangladesh. He has inspired and encouraged students to participate in contests as competitive programmers for years. While serving as a professor in BUET, he led several teams from the university to the ACM International Collegiate Programming Contest (ICPC) and reached the finals multiple times. In the year 2000, a team led by him finished 11th in the world ranking at ICPC. Dr. Mohammad Kaykobad was awarded the Best Coach Award at the ACM ICPC Finals in 2002 and the Senior Coach Award at the ACM ICPC Finals in 2013 at St. Petersburg. Along with competitive programming he also initiated various olympiads on Math and Science in Bangladesh.

## A seminar on "Importance of Competitive Programming and an Introduction to IEEEXtreme"

02

The event was also adorned by Ms. Shaily Roy, Lecturer, Department of Computer Science and Engineering, Brac University as the Keynote Speaker. She is an ardent programming enthusiast and coordinates all the competitive programming activities at Brac. She has an experience of solving over 125 problems from UVA and over 500 problems from other online judges like Vjudge, Codeforces, Codechef, Hackerrank, Lightoj, A2oj, Hackerearth and so on. During her student days, she managed to participate and win various prizes at different programming competitions.

The first speaker for this 2-hour long seminar was Dr. Kaykobad. He took the stand and spoke about how programming competitions have been getting exceedingly important over the years as they ignite the spirit of the young programming enthusiasts. Progress is not visible unless there is a final reward and competitive programming provides the sense of achievement which further acts as a fuel for the coders. He then went on to say that the students must participate in multiple contests and express their peak potential. He diligently believes in the endless capabilities of the youth of Bangladesh and how much they have to offer. He further adds that teamwork may not always be the dream work, the willingness to try again is important. He then acknowledges the progress of our current programming teams and how far they have achieved. Leaving us on a motivating note, Dr. Kaykobad concludes that although circumstances might go adverse, we should always think of them as opportunities rather than drawbacks.

The motivation torch lit by Dr. Kaykobad is carried further by Shaily Roy. She started her speech with a fun coding problem and by the end of it she managed to take the audiences aback by showing a wondrous trick of solving a tricky problem in a never seen way, Magic, as she calls it. She provided a deeper insight into the field of programming competitions and the activities that were effective in Brac University to train the students enthusiastic about competitive programming. She advised and encouraged everyone to start

competitive programming and participate in it irrespective of the stage they are in. She further says that in competitive coding it is just consistent problem solving and critical thinking that matters, not the language, be it C++, Python, or Java. "Practice, Practice, and Practice. Don't do it because you have to. Do it for the fun of it. Critical thinking will help you excel in any field irrespective of what you choose to do. However, while all these go along, we must take care of our studies as academics are equally important", she concludes.



## A seminar on "Importance of Competitive Programming and an Introduction to IEEEXtreme"

02

By the end of the session, a Q/A was introduced where concerns from newbies, seniors, and active programmers were addressed. During that Q/A, concerns about having a dedicated programming lab were also raised by the students. With all the extended facilities Brac University already provides, including an active programming community, instructors, tutors, guidelines, and sponsorships, a programming lab will be the icing on the cake. All and all, the session was highly informative and enlightening as freshers tend to get highly confused about where or how, to begin with, programming. The in-depth information and insight by the instructors themselves will help them to pave the way in the field of Competitive Programming.



# Seminar on "Seminar On A Road Show To Blockchain Olympiad Bangladesh "

03



**IEEE**  
 BRAC UNIVERSITY STUDENT BRANCH

**BCOLBD**  
**BLOCKCHAIN OLYMPIAD BANGLADESH 2022**  
**Seminar On**  
**A Roadshow to Blockchain Olympiad Bangladesh 2022**  
**Call for participation**

**Mr. MD. Shamsul Haque**  
 Head of Technology, BRACNet Limited

**Mr. K Atique-e-Rabbani**  
 Managing Director, The Computers Ltd. Chief, Blockchain Academy of Research Education and Development (BARED)

**Mr. Misha Ali**  
 Head of Growth, Fasset

**Dr. Muhammad Iqbal Hossain**  
 Assistant Professor  
 Department of Computer Science and Engineering  
 BRAC University

26th APRIL 2022 | PLACE UB21913, BRAC University | AT 1 PM

Email: [info@bcolbd.org](mailto:info@bcolbd.org) | Visit: <https://bcolbd.org/>

Sponsors: FBCI, BASIS, IBA, ICT Division, Bangladesh Computer Council, International Blockchain Olympiad, Technohaven Company Ltd., The Business Standard, Business Times.

On April 26th, 2022, IEEE Computer Society Brac University Student Branch Chapter arranged a seminar on Blockchain Technology in association with BCOLBD titled "Blockchain Technology And Call For Participation in BCOLBD 2022". The event was organized for the students in the STEM who are interested in the field of blockchain technology to introduce them to the decentralized, distributed ledger that records the provenance of a digital asset known as blockchain and how it can lead to new opportunities and escalate their professional careers through greater transparency, enhanced security, and easier traceability.

Our first speaker, Mr. Mishaal Ali, went through the basics of Blockchain, including its purpose, what participants are required to accomplish on the Blockchain, and the crypto token money. A blockchain is a decentralized distributed ledger system that records the ownership of a digital asset. He also discussed

how we might achieve decentralized exchange, noting that to do so, we must first enter, then the operating system of Blockchain, and last, we must do this via equilibrium modification. Blockchain has the benefit that we may invest now and start earning interest on our investments immediately. The first layer on which Blockchain excesses are taught to understand what Blockchain is about is the decentralized exchange layer. Blockchain technology incorporates not just digital access but also the stock market and traditional forms of wealth. These are the types of challenges that are faced by all of the services that are transitioning to the Blockchain, including banking and finance. This innovative technology has the potential to provide improved data security and privacy at a cheaper cost and with more speed than is now available. A cryptocurrency

## Seminar on "Seminar On A Road Show To Blockchain Olympiad Bangladesh "

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token or a fractionalized unit of a cryptocurrency is referred to as a crypto token. It is a representation of a tradable asset or utility that is stored on its blockchain and gives the possessor the ability to utilize it for economic or investing objectives. Assistant professor Dr. Muhammad Iqbal Hossain discussed the academic side of Blockchain, stating that there are many work possibilities related to Blockchain and that we need to employ our people to develop these jobs. We must get ourselves ready to expand our horizons intellectually and communicate our ideas. He said that blockchain would become a significant business over the next five years. This olympiad provides a wonderful platform for us to talk about our ideas on Blockchain technology. Additionally, Mr. MD Shamsul Haque discussed Blockchain and its technological applications. He instructed us on how to understand Blockchain. Learn the fundamental notion of Blockchain and then its technical features. Blockchain allows distributed ledger technologies to be implemented (DLT). The result of Blockchain is that none of its information is stored centrally.

The Blockchain is instead replicated and distributed over a network of computers. Each computer on the network updates its Blockchain whenever a new block is added to the blockchain. How exactly do we determine what we may and cannot accomplish inside the Blockchain project? It is comprehensible due to the conditions and the level of openness. He emphasized that Blockchain and Bitcoin are two separate entities. The technology known as blockchain is responsible for the creation of bitcoin. In addition to that, he went through the Olympic regulations about the submission of work. He said that the writing should be done on white paper and that the writing itself should include difficulties, answers, architectural usage, market companion, income, and the worth of the subject matter. In general, we also talked about the future of Blockchain, and Mr. Mishra Ali mentioned that in the next ten years, we will need to decentralize everything from Blockchain for it to be used by companies like Facebook, Uber, and others, as well as the developing world, which is moving toward the present.



## Seminar on "Seminar On A Road Show To Blockchain Olympiad Bangladesh "

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The involvement of the students in the successful completion of the program drew a lot of attention to itself. Students provide questions to our guests at various points during the day, and our guests respond to the questions in a kind and thoughtful manner. The segment in which we answered audience questions gave our presentation some welcome depth. As a direct consequence of this, the progression of the program seemed to be quite picturesque. At the conclusion of the day, our guests are presented with flowers and thanked profusely for attending our seminar. Many compliments go out to the presenter for their skillful management of the occasion. The most significant aspects of each chapter were carefully summarized and presented so that the general members might become energized. After listening to the Chair's closing comments, this lively gathering came to an end.



# Seminar on "Studying Post Graduation Abroad : Experience From USA"

04



*Seminar On*

**Studying Post Graduation Abroad:  
Experience from USA**

**Speaker**



**Tanvir Rahman**  
*Graduate Research Assistant,  
University of Delaware  
Former Lecturer,  
Brac University*



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BRACU Student Branch Chapter

A webinar session for the Brac University student was organized by the Brac University IEEE student branch in collaboration with the IEEE Computer Society Brac University Student Branch Chapter titled 'Studying Post Graduation Abroad: Experience from USA' scheduled on 19 June 2022 at 8:00pm in its endeavor to educate the student regarding the post graduation process. The speaker of the show was Tanvir Rahman, former lecturer of the BRAC university. This webinar focused on answering the queries related to post graduation in the USA, scholarship and different tests for going through these processes.

Most of the engineering students in our country are going to the USA for post graduation nowadays. Post Graduate degrees from the USA are recognised everywhere and in every country. Moreover, American

universities are renowned for excellent qualities of education and research. Most of the top notch universities of the world are situated in the USA. Therefore, most of the students are inclined toward doing post graduation in the USA. Besides, American Universities give enriched campuses and emphasize in employability which provide different skills. Also, they provide the chances to conduct different research work. These universities conduct different workshops, sessions, and tutorials for their students which give them industrial experience. Students from all over the world come to American universities. Therefore, doing post graduation in the USA gives a chance to come in contact with people from different cultures. But to get into one of

## Seminar on "Studying Post Graduation Abroad : Experience From USA"

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these universities, one has to go through a lot of process. The requirements in different universities are different. But language test, GRE tests are more or less, the requirement of most universities. Besides, there are some other requirements such as statement of purpose, graduation from a renowned university, letter of recommendation etc. Along with that, research or internship projects, any published research paper or any kinds of social or leadership add weights to the application process. However, most of the high ranked universities cost a lot and the tuition fees are quite high in these American Universities. In addition to that, one has the cost of living, accommodation cost outside these tuition fees. To solve these financial problems, most of these universities provide different kinds of partial or full funding to their students in exchange for their work. These international students have the scope to work as teaching assistants or research assistants. Besides, they have the chance to do other jobs on campus. That's why the first choice of most students while going abroad for post graduation is the USA.

The speaker of the webinar was Tanvir Rahman who was a former lecturer of the BRAC university. He is a graduate research assistant in University of Delaware. He has completed his BSC in computer science and engineering from Brac University. Also, he worked as a student tutor during his undergraduate period. Before joining BRAC university as lecturer, he also served as IFIC Bank Limited as their IT consultant.

The speaker addressed the participants about the whole post graduation process. He went on saying that one needs to do great in speaking and writing tests while taking a language test. Reading and listening tests help to get scores, But speaking and listening is going to help him get a job as an instructor or teaching assistant to get funds. While stating about the reasons of writing skill the speaker, in his words, "Because they will want to know if you will be able to publish a paper" He added that, one with more language score is going to get preferred by those foreign universities. Then, he talked about the GRE

test which helps these universities to judge whether a student can work under pressure. He briefly talked about the course based and the research based Masters degrees. Furthermore, He explained the differences in doing Masters and Phd degrees in these universities. He added that when a student gives up doing Ph.d research they are given a Master degree but in that case they have to pass the preliminary exam. He explained how research work and publishing papers help one landing a teaching assistant job. While taking a letter of recommendation, one should take the recommendation from someone who has seen a person's skills and dedication or someone with whom one has worked closely according to the speaker. Finally, he advised the final year and thesis students to keep a decent CGPA, to have some research work or papers, to keep their statement of purpose ready and to prepare well for the GRE test.

The webinar took place on facebook platform and the presenter was Azwaad Labiba Mohiuddin, chair of BracU IEEE CS chapter. All the students of BRAC University were eligible to attend this webinar.. The seminar started around 8:00 pm and continued for 1 hour. Throughout the webinar the speaker answered different queries. Finally, pleasantries were exchanged and the lively session came to an end.

# Seminar on "Preparing For The Software Industry As a Fresher "

05



The poster is dark blue with yellow and white text. At the top left is the IEEE Computer Society logo and 'BRACU Student Branch Chapter'. At the top right is the IEEE logo and 'BRAC UNIVERSITY STUDENT BRANCH'. The main title is 'SEMINAR ON PREPARING FOR THE SOFTWARE INDUSTRY AS A FRESHER'. Below this is a circular portrait of Amirul Islam Al Mamun, a man with glasses in a red plaid shirt. Under the portrait is his name 'Amirul Islam Al Mamun' and his title 'Senior Software Engineer, Supertal, Singapore'. A yellow box contains the date '16<sup>th</sup> OCTOBER 2022' and a black box contains the time '5.30 PM'. A QR code is in the center, with 'SCAN FOR REGISTRATION' below it. The BRAC University logo is in the bottom right corner.

IEEE Computer Society Brac University Student Branch Chapter organised a seminar titled 'Preparing for the Software Industry as a Fresher' on October 16th, 2022 at UB2 19th floor, BRAC University for recent graduates securing the desired job in the fast-paced tech industry, addressing requisite preparation, pipeline and employment prospects overall.

Focusing on insights and work methodologies of the software industry the informative seminar was conducted by Keynote Speaker, Mr. Amirul Islam Al Mamun, a bright BRAC University alumnus, who is currently working as a Senior Software Engineer at Supertal, Singapore. With Amirul's vivid knowledge and experience working in the software industry he enlightened his audience, 50+ graduate and undergraduate engineering students, on how to enter the industry even as a fresher with acquired skill sets.

At very first, he begins by classifying the positions and employment opportunities available for graduate engineering students. He addresses the most commonly sought-after job in the Bangladeshi software industry, web development. For anyone who is targeting that particular area, Amirul shared a comprehensive roadmap with all necessary pieces of information from the required programming language to framework everything.

Later he moved on to the emerging engineering job arenas such as AI/ML, cyber security, blockchain, database admin, etc both nationally and internationally. Not only that, Amirul explores opportunities for graduates who are not much interested in extensive coding while

# Seminar on "Preparing For The Software Industry As a Fresher "

05

suggesting a plethora of non-coding work opportunities.

Deciding on the desired job or jobs, the next question that arises is preparation. For this, our speaker explains a three-phase preparation process that starts with gaining expertise in the required programming language, then learning data structure and algorithms, OOP, and OS problem-solving subsequently, and then doing different projects and frameworks for practice. While all the technical skills are being acquired it's also very important to focus on soft skills i.e. communication and leadership to survive in the software or any industry in general, says Mr. Amirul.

Then again, networking and social media platforms such as LinkedIn, and Twitter play a vital role in the job search. Besides, communication and connection with people in a similar job arena also increase the chances of getting better job referrals. Therefore, Amirul emphasises creating a presentable resume and adding projects on the go for a better acceptance rate.

Interviews are also a very crucial part of the entire hiring process. Some interviews can be week-long and can have multiple examination steps which include both coding and non-coding tasks. Amirul advises to complete each assigned task diligently and appear for the interview with prior research and confidence. The aspirants can go through commonly asked questions, and tasks for beforehand preparation to boost their confidence.

Finally, Mr. Amirul addresses the big question of whether or not academic grades matter. The answer is NO. In the software field, what is most important is that the hired candidate can meet the needs of the hiring company in simple words if he/she can perform the assigned task. For this reason, especially in this engineering field, skill wins over grades. Therefore, Amirul speaking from his years of experience and expertise focuses on enhancing one's skill set as much as possible.



## Seminar on "Preparing For The Software Industry As a Fresher "

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And to become proficient in those skills, Mr. Amirul advises participating in coding competitions as frequently as one can. One way to improve coding proficiency and sharpen analytical and problem-solving abilities is through Competitive Programming. Therefore, it is highly recommended to try oneself in competitive programming regardless of the academic stage to ace interviews with both national and international tech giants.

Gladly, IEEE offers such platforms as IEEEExtreme for students to test and show their capabilities and earn recognition. Students should avail such resources as much as they can. By the end of the seminar, the floor was open to the audience to place their queries and receive immediate responses.

To sum it all up, it was a very educational and uplifting session for both graduate and undergraduate students. Thanks to Mr. Amirul Islam Al Mamun's capabilities which are proven by his eminent success the takeaway from this seminar is nothing but immense knowledge.



# Webinar on "Investigating Bias in Natural Language Processing (NLP)"

06



**IEEE BRAC UNIVERSITY  
STUDENT BRANCH**

**IEEE  
COMPUTER  
SOCIETY**  
BRACU Student Branch Chapter

## WEBINER ON Investigating Bias in Natural Language Processing

**Keynote Speaker**

**Dr. Farig Yousuf Sadeque**  
Assistant Professor, BRAC University  
Former Associate Research Scientist, Educational Testing Service, New Jersey  
Former Research Fellow, Harvard University

**THIS WEBINAR IS FREE AND OPEN FOR ALL**

Platform:  **zoom**

Registration Ends on 2nd March

Date : 3rd March, 2022  
Time : 7.00 PM - 8.00 PM

On March 3, 2022, the IEEE Brac University Computer Society Student Branch Chapter successfully held an insightful and interactive webinar on "Investigating Bias in Natural Language Processing." This webinar paved the scope for many students with the opportunity to investigate the meaning of Natural Language Processing and comprehend its bias. This webinar, which was free and open to the public, drew a large number of students from various universities. Within one week of the promotional phase, students had registered. A total of thirty-nine students attended the webinar.

Dr. Farig Yousuf Sadeque, currently an Assistant Professor at Brac University, presided over the webinar. He previously worked as an Associate Research Scientist at the Educational Testing Service, New Jersey, and a Research Fellow at the Computational Health Informatics Program at Harvard Medical School and Boston Children's Hospital. In May 2019, he received his Ph.D. from the University of Arizona, where his research focused on user behavior analysis in social media using cutting-edge machine learning and natural language processing techniques.

Natural language processing is the next generation of device communication, and it has largely reinvented human-machine interactions. Language is how people communicate with one another, form relationships, and foster a sense of community. "NLP combines computational linguistics (human language rule-based modeling) with statistical, machine learning, and deep learning models. These technologies, when combined, allow computers to process human language in the form of text or voice data and 'understand' its full meaning, complete with the speaker's or writer's intent and sentiment. Natural language processing strives to build machines that understand and respond to text or voice data—and respond with text or speech of their own—in much the same way humans do," IBM writes. The ambiguities in human language make it extremely difficult to write software that precisely determines the desired understanding of the text or voice data. Homonyms, homophones, sarcasm, idioms, metaphors, grammar and usage exceptions, sentence structure variations—these are just a few of the human language discrepancies that take humans years to understand,

## Webinar on "Investigating Bias in Natural Language Processing (NLP)"

06

but that programmers must teach natural language-driven applications to recognize and understand appropriately from the beginning if those applications are to be beneficial.

As an avid NLP enthusiast, our honorable speaker ensured that the webinar was interactive and informative enough to keep the participants' attention without becoming monotonous to the subject matter. He discussed some major biases that can be observed while studying NLP. He began the webinar by displaying some pictures. He prompted the attendees to make connections between their everyday experiences and decisions, as well as to make interpretations on various issues. Dr. Sadeque's key point showed how our interpretations have biases and how these biases translate to the models we train. He explained how gender biases, religious biases, and other factors enter into such models. He used social media comments to demonstrate such bias. If social media comments are used to train a model, not only positive but also negative comments will be processed. When a society's mental bias is expressed through these comments, the machine is also trained in that manner. For example, if mental illness is perceived to be negative and silent, the model will recognize mental illness as a negative event. In a nutshell, the models represent our society, our way of thinking about various issues, and what we write, spread, and believe. Finally, he concluded that, while we as computer scientists cannot control societal biases, we should focus on developing machine learning models that are not a reflection of our flawed society.

Overall, the webinar provided attendees with an excellent learning opportunity. The interactive session broadcasted a widespread academic discussion session with dynamic and constructive findings. Finally, IEEE Brac University Computer Society Chapter Chair Azwaad Labiba Mohiuddin delivered her closing remarks, thanking everyone for their attendance. Pleasantries were shared, and thus a lively webinar came to an end.

**IEEE COMPUTER SOCIETY**  
**BRAC University Student Branch Chapter**



# Workshop on "Software Development with Flutter"

01



Workshop On  
**Software Development with**  


**27, 28, 29 MARCH**  
7PM TO 9PM

PLATFORM: 

REGISTRATION DEADLINE: 24 MARCH

Organized by  
 **IEEE**  
BRAC UNIVERSITY STUDENT BRANCH

 **IEEE  
COMPUTER SOCIETY**  
Empowering the people who drive technology

**INSTRUCTOR DETAILS**



**Md Al Imran Sefat**  
Founder, Coding with Imran  
Software QA Engineer at Enosis Solutions  
Flutter Developer and Trainer



SCAN ME!!

The IEEE Computer Society Brac University Student Branch Chapter organized a three-day online seminar titled "Introduction to App development with Flutter" from March 27th to March 29th, 2022. The session covered Flutter basics, app design, app styling, animations, and building an app from the ground up. Despite the fact that this was an online event, the turnout was impressive. Every day, an average of 30 people attended the workshop.

Application development is one of the most progressive sectors in the world of technology. A framework is essential to construct an application. Different operating systems require different toolkits to develop apps for them. For building a wide range of applications, Android requires toolkits such as AVD, AVD manager, android studio, Eclipse, Fabric, Flowup, and so on, whereas IOS requires toolkits such as XCode, AppCode, Coderunner, Appypie, Buildfire, and so on. As a result, using two distinct development tools to design the same application is inconvenient. Also, it is common to see an app that is only available for Android users because developing apps for Android users is very simple, whereas developing the same app for IOS users is more complex. Apps such as

AirDroid, Muzei, ADV screen recorder, solid explorer, and others are exclusively available on Android. To address these issues, Google released flutter in May 2017 as an open-source platform for developing apps for both Android and iOS users. Flutter is a popular software development platform for both Android and iOS. It isn't a programming language in the traditional sense. It is a Google frontend development platform that allows for cross-platform app development while maintaining a uniform user experience. The same program may be written for Android, iOS, Linux, macOS, Windows, Google Fuchsia, and other platforms using the same code. Flutter is mostly used to create mobile apps, but it has the potential to expand beyond that. It sped up the application development process because one code could be used to create apps for numerous operating systems. On this platform, customizing widgets is a lot easier. However, there are several limitations to this platform, such as a limited range of tools and libraries, poor IOS feature compatibility, and the lack of a password manager. Despite its

# Workshop on "Software Development with Flutter"

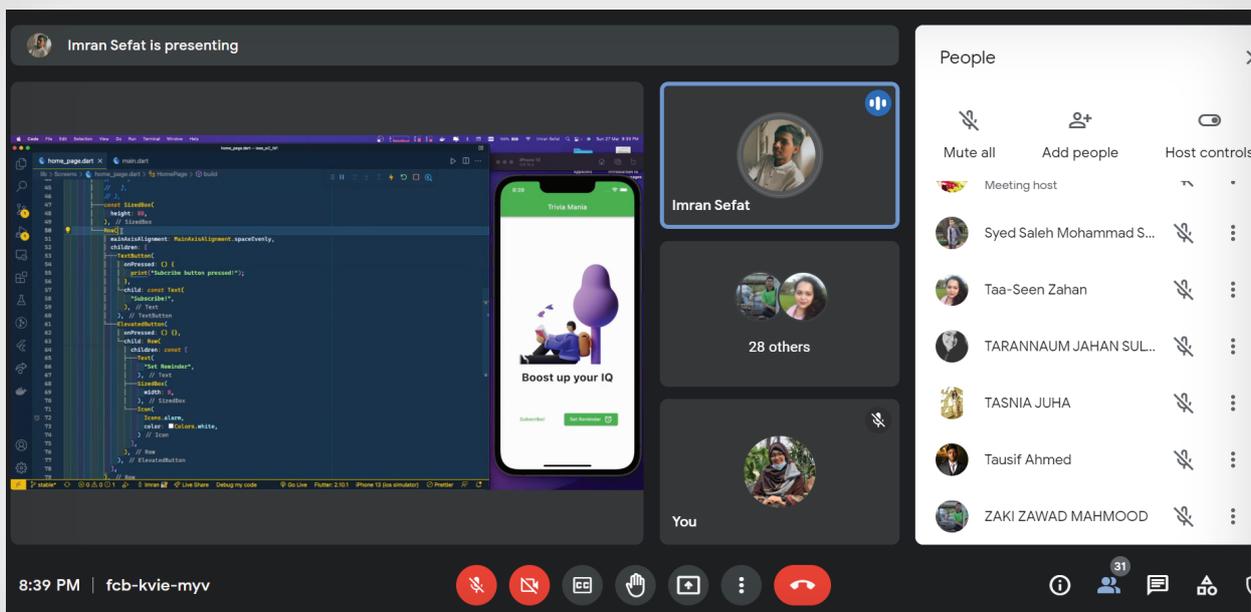
01

flaws, it is an excellent tool. Flutter apps include Goggle ad, klister me, Reflectly, Xianyu, Postmuse, Hamilton, lunching, paring, and many more noteworthy apps.

Md Al Imran Sefat, ex-Secretary of the IEEE Brac University Student Branch, was the speaker. He has completed his B.S.C in Computer Science and Engineering from Brac University. Currently, he is working as a software QA engineer at Enosis solution. He is a flutter developer and trainer. Moreover, he is a full-stack developer and firebase expert. He is also the founder of Coding with Imran.

On the first day of the session, the speaker delivered a quick overview of Flutter. He also explained how to use it. Following that, he discussed Dart, a programming language used in Flutter. He then went on to talk about

the various parts of this UI framework. Then he went over themes, simulators, fantastic extensions, hot reload, widgets, and other folder types. He also explained how hot reload helps with problem fixes. Also covered how to make a homepage, style it, create buttons and use a counter program. Finally, he demonstrated the breakdown of the project structure. On the second day, the lecturer concentrated on the designing aspect and demonstrated how to use dribbling to achieve the desired design. He also discussed padding, classes, storing, and counting data. There were complex UI and UX designs on display. He talked about APK connection formation on the last day. After that, he demonstrated how to create an API key and use it, as well as how to create a data model. He also demonstrated the process of adding animations, graphics, and icons. During these three days, the speaker demonstrated how to build a whole application from the ground up.



## Workshop on "Software Development with Flutter"

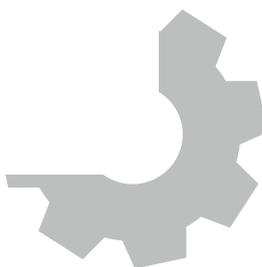
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The seminar took place on the google meet platform and the presenter was Azwaad Labiba Mohiuddin, Chair of the Brac University IEEE Computer Society Student Branch Chapter. All Brac University students were entitled to attend this seminar. On all three days, the session began at 7:10 p.m. and lasted 1.5 to 2 hours. Throughout the three-day lectures, the speaker fielded questions from the audience and clarified their problems and misinterpretations. Finally, the spirited discussion came to a conclusion with niceties exchanged.

**IEEE COMPUTER SOCIETY**  
**BRAC University Student Branch Chapter**

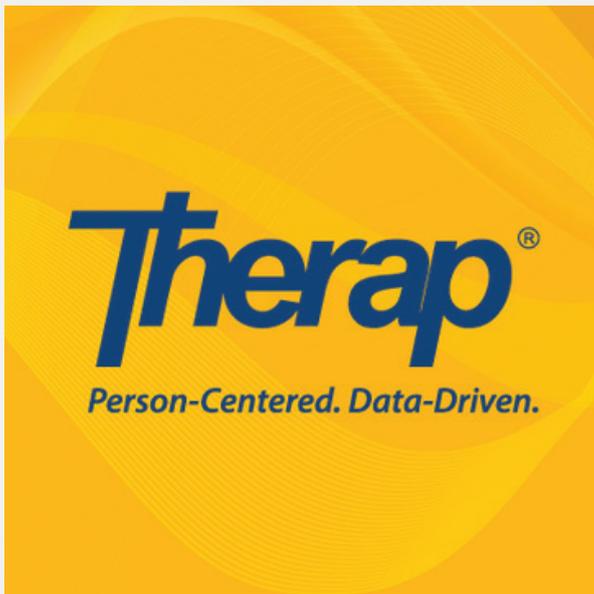


**INDUSTRIAL  
VISIT**



## IEEE CS industrial Visit

01



IEEE Computer Society Brac University Student Branch Chapter has successfully managed to organize their first ever Software Industry tour this year. The visit was conducted in two phases at two of the leading software companies of our country, Therap (BD) Ltd on November 28th and Kona Software Lab on December 2nd. The registration for the visit was open for all the members of IEEE Brac University and then they were selected according to their eligibility for the visit because of the limited availability of the seats. The visitors got to know about how the industry functions through the eyes of the mentioned companies as well as how fresh graduates can prepare themselves for the industry.

Industrial tours are often offered by different institutions to enhance students' practical knowledge and hands-on skills.

Such visits help them get an idea of real-world working schemes and their implementation. Besides, these help them to go beyond academics and give them first-hand knowledge of the functioning of an industry. These industrial visits show the students the practical implementation of their academic knowledge. Moreover, through these visits, they get the chance to meet the current employee and employer. They can have an insight into the recruiting process by interacting with them. By exposing them to current working practices, these tours help them to furnish their future goals.

## IEEE CS industrial Visit

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On 28th November 2022, IEEE CS Brac University Student Branch Chapter members had their visit to Therap BD LTD. Therap BD LTD is a US-based software company. Their Bangladesh headquarter is in Banani. After a warm welcome on arrival, they were taken to the conference room. The main program consisted of a presentation session with the Human Resources (HR) representatives of the company where they gave an overview of their industry, talked about their work, mission, and vision. Furthermore, they talked about the way they treat their employees as well as the indoor and outdoor facilities given to their employees. Therap has fifteen (15) departments. All non-technical departments are located from the first to the third floor and the main working area for the company, the technical department, which includes the software development department, QA, android and IOS application department, machine learning department, and others, was located on the fourth and above floors.

The participants got to explore all the floors as a part of their visit and see all their working processes. After some light refreshments, there was a question-answer session with some of the team leads and senior developers of Therap BD. They answered questions from the students and encouraged them to be passionate about the subject they chose to apply for. Besides, they encouraged them to develop their analytical and problem-solving skills. Finally, after some exchange of gratitude and a photo session, this part of the industry visit came to an end.



## IEEE CS industrial Visit

01

The next part of the industrial visit was at KONA Software Lab LTD. It is a Korea based company having their Bangladesh office in Police Plaza, Hatirjheel. KONA SL has a great contribution to the banking system of Bangladesh and is considered one of the pioneers of fintech in our country. It is the end-to-end solution provider of Nagad, the fastest-growing DFS in Bangladesh. Also, Nexus, the digital wallet of the Dutch Bangla Bank was developed by this software company. On 2nd December 2022, the team from IEEE CS BracU Student Branch Chapter arrived at the Brac University campus around 9 am and the bus left for the venue at 9:30 am. After a 40-minute journey, we reached the KONA SL premises at Hatirjheel. After their cordial reception, the participants were taken to the conference room. The speaker for the session was Mr. Aflatun Kaiser, Chef of the People Care department of Kona SL. After giving his brief introduction he started discussing the company and the functioning of this industry. The discussion also included the current situation of our education system and how a student can prepare for the software industry on their own regardless of the flaws in the curriculum.

After a short refreshment break and a tour of the premises, he gave his precious advice on developing different skills. He mentioned briefly the recruiting process at Kona SL. Lastly, the visit was concluded with a very interactive question-answer session that cleared a lot of the confusions of the attendees.

Through these industrial visits, the students got the chance to meet the recruiters directly as well as got to learn a lot about the software industry situation of our country. Both visits demonstrated the technical and managerial sides of these software industries and what they seek from a fresh graduate when they look for new recruits. This advice gave them the insights to plan for their future jobs and they got a glimpse of a practical work environment inside the software industry.



**IEEE COMPUTER SOCIETY**  
**BRAC University Student Branch Chapter**

# IEEEXtreme

## Promotions for IEEEXtreme

01



The poster features the IEEE Computer Society and IEEEXtreme logos at the top. It includes a circular portrait of Mashaba Nawrin, the campus ambassador. The text promotes the registration for the IEEEXtreme 16.0 Programming Competition, highlighting that it is a 24-hour international event for IEEE members only, held on October 22nd, 2022, from 00:00:00 UTC. A QR code is provided for registration, and the event details are listed in a light blue box.

IEEE COMPUTER SOCIETY  
BRACU Student Branch Chapter

IEEEXtreme 16.0 Programming Competition



Mashaba Nawrin  
Campus Ambassador  
Brac University

Registration **LIVE** Now!!

- 24 Hours International Programming Competition.
- Only for IEEE members (Student member or Graduate Student member only).
- Teams of 1-3 members.



SCAN To Register!

Date : 22nd October, 2022  
Time : 00:00:00 UTC.

This year IEEEXtreme 16.0 was held on the 22nd of October 2022 from UTC 00:00 am to the 23rd of October, UTC 00:00 am. This 24-hour programming competition was held entirely online. A total of 12 teams from Brac University participated in the competition this year.

Brac University is under Region 10 on the map of IEEE. It was witnessed that this year 54% of sign-ups for the competition were from Bangladesh and Brac University was one of the leading universities whose IEEE members and graduate students participated. The proctor from our university was our respected Annajiat Alim Rasel sir, who monitored the participation of students and the scoreboard throughout the competition.

The Judges of this event were Dr. Jeremy Blum (Pennsylvania State University), Prof. Oded Margalit (Citi's University), Dr. Nikolaos S. Papaspyrou (Google-Germany), Kuida Liu (TuSimple), Douglas Gischlar (IEEE), Zhiruo Zhou (University of Southern California), Bryan Cipriano Tarazona (NEORIS), Alfonsus Raditya Arsadjaja (Dekoruma).

Speaking about the Executive Committee, we had Luis Fernandes as Committee Chair, George Michael as Committee Vice Chair, Dr. Jeremy Blum as Technical Lead, Adwaith S as Public Relations Lead, Craig Scratchley as Rules Lead, John Benedict Boggala as Sponsorship lead, Omar Bishtawri as Webmaster, Robert Sacks as IEEE Staff, Program Specialist and Student Activist,

## Promotions for IEEEXtreme

01

Dimitrios Lyras as Advisory Member, Prasanth Mohan as Advisory Member, Monika Bhole as Counseling Member, Dr. Heba Hassan as Consulting Member, Henan Nina Hanco as Consulting Member.

To make this event successful, it was divided into 10 regions along with a design team with skilled IEEE Members. Speaking about the design team, we had Sahabzada Betab Badar as Design Team Lead, Remajothi S as Design Team Co-Lead, Mihin Himsara Kariyasam, Gerardo Martinez, Md. Moynul Islam, Mehammed Shabeeb Kt, Krishna Varshney, Mohammad Rahman, and Vaishnav S in the Design team.

How were the problems formed? The tasks are developed and judged by our respected judge panel. Entrants agree and acknowledge the fact that the sponsor is the owner of all tasks and the associated code. Entrants further agreed that they won't without written permission from the sponsor, use the tasks or any associated code for any reason other than the event. The panel of judges was made up of higher-grade IEEE members from both academic and industrial backgrounds. Tasks were categorized as easy, medium, hard, and hardest to assist teams of all experience levels to participate and help them prioritize the order in which they would resolve said tasks. An individual task was answered in any of the supported programming languages, which are indicated at a specific URL : (currently <https://csacademy.com/about/environment/>). All the tasks had time and memory limitations, and it was also possible that certain programming languages would have a different time limit to adjust for factors such as virtual machine overhead.

We talked with some participants about their experience in the competition. According to them, the problems were standard enough with sufficient time, and they had a nice experience participating in the contest. Almost all of the teams had 3 members. Regarding signing up, contestants got almost 1.5 months for signing up and the procedure was easy to complete.

Participants did not face any difficulties during the competition. The difficulty level of the questions was an average of 4.5 out of 5. And the overall experience among the participants was 5 out of 5 and they were satisfied with the event. One thing participants suggested was that organizers should provide prizes who ranked well in the region section.

This competition was created to provide IEEE Student Members and Graduate Student members with an interesting IEEE activity, giving competitors an opportunity to embrace teamwork- which is an important skill to develop for career success. And lastly to increase awareness among IEEE students around the IEEE core activities related to information and technology topics.



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