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Sri Lanka Chapter

NEWS

LETTER

IEEE COMPUTER SOCIETY SRI LANKA CHAPTER

Content

WELCOME MESSAGES	03
MESSAGE FROM THE IEEE COMPUTER SOCIETY SRI LANKA CHAPTER CHAIRPERSON	03
PERSONALITIES	04
RESEARCH PERSONALITY - PROF. ROSHAN RAGEL	04
TECHNICAL ARTICLES	06
TRANSFER LEARNING	06
TOWARDS A QUANTUM-SAFE INFORMATION AGE	08
STUDENT CHAPTER ACTIVITIES	09
A CONCRETE FOUNDATION FOR A CAREER IN FRONT - END DEVELOPMENT	09
CODIFY V1.0 - WARM-UP HACKATHON SESSION	10
MORAXTREME 6	12
CYBERHAT 1.0	13
HOW TO START A CAREER IN UI/UX	14
CYBERSHIELD 2021	15
HACKTRON V1.0	16
DESINX	18
HIGHLIGHTS EVENTS OF THE IEEE COMPUTER SOCIETY STUDENT CHAPTER OF IIT	19
LET'S TALK ABOUT SOLID PRINCIPLE	21
MONTH OF CODEGENIX	22
INTRODUCTION TO IEEEEXTREME WEBINAR BECAME A SUCCESS	24
LEARN THE FUNDAMENTALS OF THE WORLDS' OLDEST PROGRAMMING LANGUAGE - HELLO C	25
PREPARING AN EFFECTIVE CV & MAINTAINING A GOOD LINKEDIN PROFILE	26
ROAD TO GSOC	27
SLIIT XTREME	28
A GUIDE THROUGH THE BREADTH OF BACKEND DEVELOPMENT	30

Message From The Chairman

Dear IEEE Computer Society Sri Lanka Chapter Members,

First of all, Congratulations to the Editorial team for a job well done. In the history of the IEEE Computer Society of Sri Lanka Chapter (IEEE-CS-SL), the first time we are about to release Volume **ONE** Issue **ONE** is in December 2021. The Newsletter will be published quarterly in March, June, September, and December.

As you know IEEE-CS-SL has a well-earned and highly-respected reputation for innovative conferences, engaged chapter activities, trusted standards, quality publications, and dedicated, diverse volunteers. With this initiation, fulfilling the long-standing need of a Newsletter as a key publication by the IEEE-CS-SL, the proposed Newsletter aims to enrich the knowledge of its readership, within an era of a changing computing landscape through enabling to share knowledge, experience, and perspectives on the computing of a diverse group of contributors. The Newsletter is the result of the work of many volunteer leaders of the chapter who envisioned a publication that appeals to its membership by offering technical features and news and other items of interest that act as a communication vehicle for all members to share.

While encouraging articles from reputed senior academics locally and internationally in becoming a disseminator of scholarly knowledge, the Newsletter will enable IEEE Student branches and Chapters to flourish their contributions.

I encourage you to read the rest of the sections of this Newsletter hoping that the news and opportunities for your professional development presented here are to your liking.

I would like to thank all the members for your continuous support and organizing many programs for the benefit of the membership since September 2021.

We look forward to working with you on issues and notes of interest to you. Please let us hear from you on your technical committee activities, research and developments, inventions, conferences, technical features, and major events in your community.

Thank you for your commitment to the IEEE-CS-SL.

Professor S. Vasanthapriyan,
Chairperson,
IEEE Computer Society Sri Lanka Chapter.



Research Personality



Roshan Ragel is a Professor in the Department of Computer Engineering¹ at the University of Peradeniya, Sri Lanka. He is a seasoned academic with a Doctorate in Computer Science and Engineering and has a passion for innovative teaching, research and administration.

Prof Ragel received his BSc in Engineering from the University of Peradeniya, Sri Lanka, in 2001 and PhD in Computer Science and Engineering from the University of New South Wales, Australia, in 2007. He was appointed a Senior Lecturer in Computer Engineering at the University of Peradeniya in December 2007 and a Professor since October 2017. He has been a Professional Member of the IEEE and IEEE Computer Society since 2005 and a

Senior Member since 2014. He is also a Professional Member of the Association of Computing Machinery (ACM).

With an unmatched passion for teaching, Prof Ragel works on improving his teaching methods focusing on student-centred learning. He has been using blended learning strategies for many years, mainly focused on flipped learning. He has been a resource person for staff development across the University system in Sri Lanka. Being an excellent problem solver, he was instrumental in setting up an Online Proctored Examination¹ system that matches the requirements of the Sri Lankan State University sector during the Covid-19 pandemic.

Prof Ragel has co-authored more than 150 peer-reviewed articles in topics including Micro-Architectural Support for Reliability and Security in Embedded Processors (SoC), Internet of Things (IoT), Side-Channel Attacks and Countermeasures, Application Specific Processor Design, High-Performance Computing such as Hardware/Software Acceleration of Bioinformatics Algorithms, Wearable Computing, and Format-Preserving Digitisation and OCR of Local Language Text. He has won several best paper awards in conference papers, the most prolific Sri Lankan author award from Elsevier Research in 2017 and the Presidential award for scientific publication in Sri Lanka in 2018. He is also named the Top Scientist in Computer Science in Sri Lanka by AD Scientific Index 2021. With his present h-index¹ of 20, he is also recognised as a Tier 4* awardee by the University of Peradeniya for Research Excellence under the Transparent Research Performance Scheme introduced by the University Grants Commission (UGC) Sri Lanka. He was a visiting research scholar at the UNSW - Sydney, QUT - Brisbane, UIUC - Illinois and ANU - Canberra.

Prof Ragel is also the consulting Chief Executive Officer at the Lanka Research and Education Network (LEARN), the national NREN, since 2017. LEARN is a Company Limited by Guarantee, owned by the UGC and the State Universities in Sri Lanka. At LEARN, he works on establishing an effective organisational structure to achieve corporate strategic goals. He has spent many years building and managing Information and Communication Technology infrastructure dedicated to supporting the research and education communities in Sri Lanka. With his involvement, LEARN¹ was able to step up for a significant milestone by launching the Asi@Connect Project¹ in Sri Lanka in 2017, which brings many opportunities for the LEARN Research and Education (R&E) network

community to get involved utilise the project resources and funds. The Asi@Connect project, co-funded by the European Union, offers a dedicated regional high capacity and high-quality internet for R&E communities across Asia-Pacific and Europe. He has represented Sri Lanka in the Asi@Connect Governors meeting and has been a Council Member of Asia Pacific Advanced Network (APAN¹) since 2017. Since 2020, he is also the Vice-Chair of the Asi@Connect Steering Committee. With Covid-19 lockdowns under his leadership, LEARN is helping the university community in the country connect and engage in productive research and education activities online. At the National level, Prof Ragel was a Core Group member for Higher Education at the Presidential Task Force for Education set up in 2020. He is a member of the UGC Standing Committee on the Development of IT Infrastructure and Online Education and UGC appointed committee to develop the Concept on Virtual / Hybrid University.

¹ <http://www.ce.pdn.ac.lk/academic-staff/roshan-g-ragel/>

¹ <http://proctored-exam-handbook.ragel.net>

¹ <https://scholar.google.com/citations?user=UTYj8usAAAAJ&hl=en>

¹ <http://learn.ac.lk>

¹ <https://www.tein.asia/main/?mc=0>

¹ <https://apan.net>

Transfer Learning

Selvarajah Thuseethan | Deakin University | Australia.

Transfer learning is a recently emerged machine learning paradigm, where the knowledge learned while solving a problem is appropriately reused in a set of related tasks. It is been extensively utilized in the area of computer vision and image classification. Using the knowledge learned during the recognition of vehicles in recognizing different kinds of aeroplanes is an example of transfer learning. Recent research manifests that transfer learning between different domains can also obtain benchmark results. For instance, the models trained to detect a variety of real-world objects (i.e., jellyfish, slug and crane) are effective to be transfer-learned in affect recognition.

The transfer learning of the neural network concept was first explicitly addressed by *Stevó Bozinovski* and *Ante Fulgosi* in 1976 [1]. In this paper, the transfer learning technique is described as a geometrical and mathematical model, which is later used to implement transfer learning applications. As an important milestone, in *NeuRIPS 2016* conference, one of the widely popular computer scientists Andrew Ng said that transfer learning is going to be the next driver for the commercial success of machine learning, after supervised learning. Since then, many machine learning researchers have realized the importance of transfer learning and its applicability in regression, classification and clustering tasks [2].

Unlike other traditional machine learning models like training from scratch, transfer learning not only requires less training data but also faster and efficient. Another key advantage of transfer learning is that the researchers do not need to build the deep networks from the scratch, which is often a time-consuming task. Transfer learning is a two-step process involving pre-training and fine-tuning. Figure 1 compares the transfer learning and the training from scratch pipelines for a classification task. As shown in the figure, the deep network is trained on the domain data and then fine-tuned on the target data to perform the classification task.

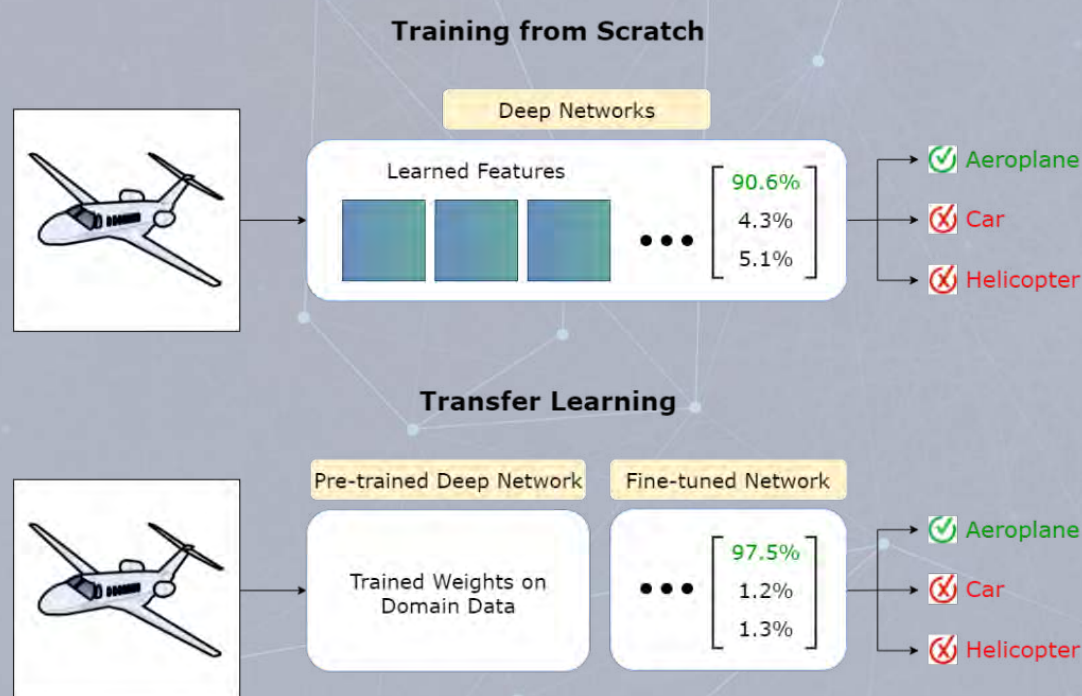


Figure 1: Comparison of training from scratch and transfer learning pipelines

Further, three important questions need to be considered while performing transfer learning: **what**, **when** and **how** to transfer? The first and essential question is which portion of the knowledge learned from the domain need to be transferred to the source in order to enhance the model performance. In doing this, the common knowledge in both domain and source is fetched. The second and most important question is at which point the knowledge needs to be transferred. More importantly, researchers should decide when the knowledge transfer should not be done as it oftentimes tends to degrade the target's performance. Finally, the required changes to the algorithms must be addressed carefully.

Having these three questions in mind, the real-world implementation of the transfer learning is carried out in a 5-step process as shown in Figure 2. Obtaining a suitable pre-trained model is the first and foremost step in the transfer learning scheme. The researchers who perform transfer learning-based image classification tasks often use various state-of-the-art deep networks with pre-trained weights of the ImageNet dataset. The VGG variants, Inception V3, Xception, ResNet-50 are some popular deep networks used as pre-trained models for computer vision problems. Once the model is selected, the last few layers need to be replaced by new layer configurations. These new layers are then trained using the target data while freezing the early layers of the model. As the final step, the model hyper-parameters are fine-tuned until the best model is achieved.

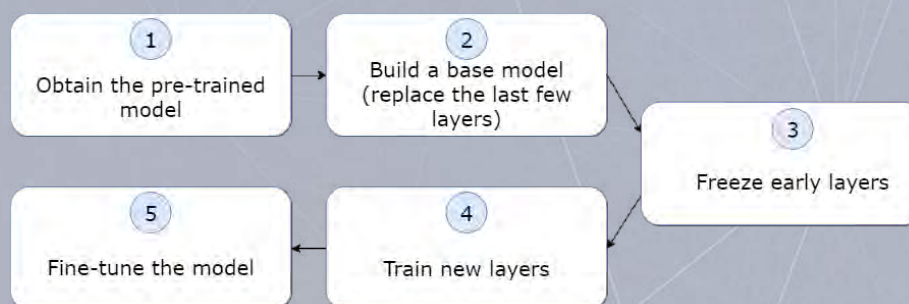


Figure 2: Implementation steps of transfer learning

Both *Tensorflow*¹ and *PyTorch*² machine learning frameworks extensively support the transfer learning of neural networks. For example, a state-of-the-art model can be loaded with ImageNet weights as given below:

```

model = tensorflow.keras.applications.MODULES( ...,
                                          ...,
                                          weights='imagenet')
  
```

where, the MODULES can be replaced by the keywords (e.g., densenet, efficientnet, mobilenet_v2, etc.) to load the specific models.

¹<https://www.tensorflow.org/>

²<https://pytorch.org/>

In summary, transfer learning has become a prominent machine learning model that has shown significant improvements in many areas including computer vision. It is perhaps known as the next driver for the industrial success of machine learning and deep learning techniques.

References

- [1] S. Bozinovski and A. Fulgosi, 1976. The influence of pattern similarity and transfer learning upon training of a base perceptron b2. In Proceedings of Symposium Informatica (pp. 3-121).
- [2] S. J. Pan and Q. Yang, 2009. A survey on transfer learning. IEEE Transactions on knowledge and data engineering, 22(10), pp.1345-1359.

Towards a Quantum-safe Information Age

Professor Roshan Ragel | Department of Computer Engineering | University of Peradeniya.

With the rapid development of information technology since the early 20th century, the Information age began, where information protection is very crucial. Cryptography is the science of protecting information. In a couple of decades, large-scale quantum computers will efficiently solve the hard mathematical problems on which cryptography is based. Thus, quantum-safe cryptosystems will be essential for secure communication in the future.



Cryptography Research Laboratory (CRL) is a research group at the Department of Computer Engineering, University of Peradeniya, Sri Lanka. The primary focus of CRL is to research cryptographic fundamentals that enable secure communications. The CRL is initiated in 2016 by Dr. Janaka Alawatugoda as an NRC postdoctoral fellow under the mentorship of Professor Roshan Ragel. Currently, Dr. Alawatugoda is a Senior Lecturer in the Department of Computer Engineering and leading the CRL group.

The CRL identifies the timely importance of quantum-safe cryptography and initiated a project on quantum-safe cryptography in 2021. Dr. Qinyi Li and Dr. Alawatugoda are the principal investigators of the project. Dr. Li is a Lecturer in the School of Information and Communication Technology, Griffith University, Australia. The project consists of two goals as explained below.

1. **Build a leakage-resilient quantum-safe public-key encryption system:** The prominent feature of the encryption system is that it is secure even in the presence of partial key leakage, possibly due to side-channel attacks. The project looks at the recent advances in quantum-safe cryptographic objects useful in designing key leakage-resilient cryptosystems and creates the public-key cryptosystem based upon them. A final-year Computer Engineering undergraduate of the University of Peradeniya, Rashmika de Silva has been involved in this work.
2. **Examine existing lattice-based quantum-safe encryption schemes and provide implementations:** Lattice-based cryptography is one of the most promising quantum-safe cryptography candidates, which offer protection against quantum computers. The project focuses on implementing public-key encryption systems from lattices. They are useful in applications such as search on encrypted data, cloud storage deduplication, etc. Three final-year Computer Engineering undergraduates of the University of Peradeniya, Dinindu Thilakarathna, Harshana Bandara, and Thushara Weerasundara have been involved in this work.

The CRL's long-term aim is to train Computer Engineering students to carry out useful works in cryptography and information security to face future challenges.

A concrete foundation for a career in Front - End Development

Pamudi Guruge | Undergraduate | University of Colombo School of Computing

University of Colombo School of Computing being preserving a legend of nearly 20 years as the leading ICT higher educational institute of Sri Lanka, the IEEE Computer Society Student Branch Chapter of University of Colombo School of Computing (UCSC) is indeed one of the most beneficial societies for students shaping up for a future in ICT.

Among many events organized and projects done by the society, “Technorion” can be taken as a rather insightful session series. Technorion, organized by the IEEE Computer Society Student Branch Chapter of UCSC was a session series on Front-End development with four worthwhile sessions conducted by 3rd-year undergraduates of UCSC.

The key objectives of organizing this event include giving hands-on experience in working with HTML, CSS, and JavaScript which are used in front-end web development without using any frameworks and libraries. The session series was intended to give the attending undergraduates a thorough grounding in the art of designing a website as a guide to managing their first software project.

The first session was held on the 24th of April 2021 via Zoom and more than 100 second-year undergraduates of UCSC participated in this event. It was an interactive session that delivered a valuable introduction about the club to the participants. Moreover, it guided the participants to their 1st software project and how to team play on building software with version control.

The second session in the “Technorion” series was held successfully on the 2nd of May 2021 via Zoom with the participation of more than 100 second-year undergraduates of the UCSC. The session was conducted by 3rd-year undergraduates, Mr. Dilan Perera and Mr. Chathura Rathnayake who collectively conducted a rather interactive session on the basics of HTML and CSS.

Then the third session of the “Technorion” series was held successfully on the 9th of May 2021 via Zoom with the participation of more than 100 second-year undergraduates of the UCSC. It was conducted by 3rd-year undergraduates, Mr. Thathsarana Dhanuka, Mr. Nandula Perera, and Mr. Shehan Sandeepa has enlightened the participants with Javascript.

The fourth and final session was held on the 15th of May 2021 via Zoom and was conducted by 3rd-year undergraduates, Mr. Ravindu Pramodya, Mr. Damish Nisal, and Mr. Chamith Nimmitha. This session mainly focused on guiding participants on how to apply HTML, CSS, and Javascript concepts together in creating a website. A hands-on session was also carried out to familiarize participants with the above-mentioned technologies.

All in all, “Technorion” was deemed a huge success as all the expected objectives of the event were met. With the support of 3rd-year undergraduates, the participants were exposed to a new dimension of Front-End Development for them to showcase their skills. Needless to say, this was only one of many projects organized by the IEEE Computer Society Student Branch Chapter of UCSC, and the society will continue in its voyage to back up the students to prepare themselves for a future in the respective discipline.

Codify v1.0 - Warm-up Hackathon session

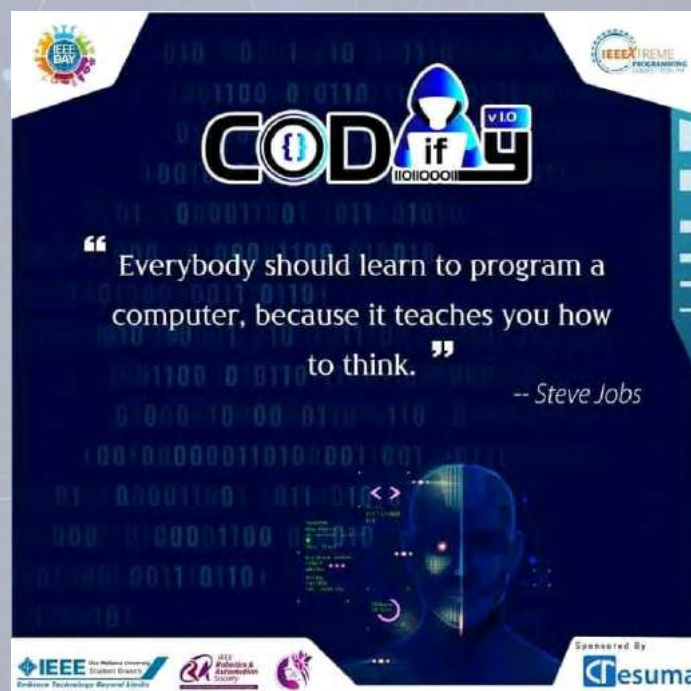
Thussitha Jegatheesan | Undergraduate | Uva Wellassa University

“Hackathons are where crazy ideas become reality”. Hackathons also go by the name codefest, which is a social competition including coding event which unites computer programmers and other inquisitive people together to improve solutions for given predicaments. Such that Codify v1.0 was an Algorithm Mini – Hackathon organized by the IEEE Uva Wellassa University Student Branch. This was an initiative for the IEEE Xtreme 15.0 Competition, which is a widespread International Hackathon. This event also was observed as the conclusionary event for IEEE Day Celebrations 2021.

Codify v1.0, this Mini Algorithm Hackathon expected to be a guidance to the Xtreme 15.0 Competition, was held on the 15th of October 2021 from 4PM. It nourished the knowledge of the UWU Undergraduates and served as a platform to proceed solutions on time for the given Queries and also to utilize various Programming Languages and Concepts learnt theoretically especially the OOP Concepts in which the results would turn into a progressive one to remark a better experience for everyone who takes part in the International Hackathon. As this was a Team event, there were around 200+ Participants, with 75+ Teams. The Questions were organized with three difficulty levels, Easy, Medium and Hard. They were organized corresponding to the levels. This occasion gave the participants a scope to attempt coding on various platforms like HackerRank, CSAcademy etc. As the

objective of this Hackathon was to Minimize struggles during Xtreme 15.0 it was achieved within a short period of time with the support of Enthusiastic and Emerging Committee Members and with the advice of the Head of the Department of Computer Science and Informatics along with other Lecturers and Technical Assistors. As this was an Online paced Hackathon, the Committee had arranged an Introductory Session to make participants aware of the session and how this Hackathon works. Flyers were advertised on Social Media Platforms to make the participants aware and also to make them enthusiastic on the day of this Hackathon. The participants were kept untiring by playing soothing music on the background. As Music helps to increase Self-Confidence and Expand their Minds. To encourage the Undergraduates to participate, it was planned to award Monetary Prices and exciting Swag Packs to the Winners.

This event also was made a successful one by the Sponsorship and assistance of CResuma, Online Resume Maker (<https://cresuma.com/>) This website helps to create Professional Resumes with different and perfect formats within 10 minutes to inspire recruiters!





This was a 3 – Hour Hackathon which was proceeded until 7PM with an Ice breaker event after the Questions were over. The Participants had to engage themselves in a Mini – Game where they had to solve an interesting puzzle and decode a keyword to find the name of a Hidden Executive Member of IEEE UWU SB until the winners were chosen. This was an aid to sharpen quick thinking and decision-making skills in splits of seconds. The Runners Up, First and Second Runners Up were Officially Revealed and they were endowed with Monetary Prizes screening their photographs on the Online Platform. IEEE SB of UWU celebrates the success of this event by appraising the participants and winners.

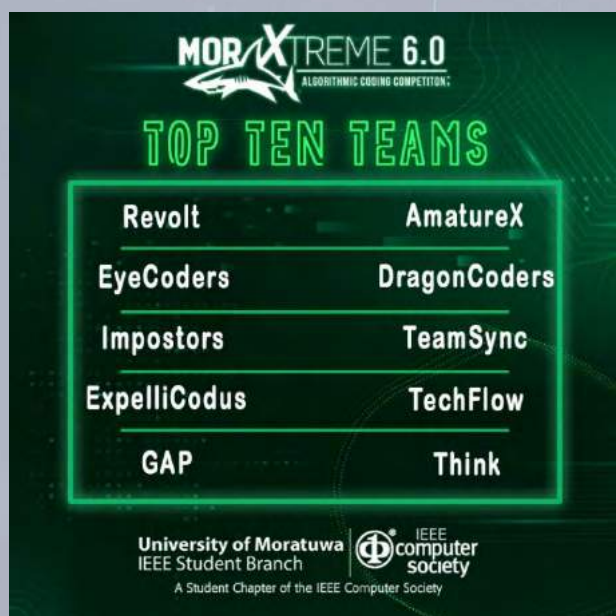
We hope to pilot similar events in the near future to showcase the coding talents and improve the thinking skills of Undergraduates all over the country to engage themselves in reputed Hackathons and upgrade their personalities. We also hope to serve the best through our Community and Promote more!



MoraXtreme 6

Gavindu Chirandi Alwis | Undergraduate | University of Moratuwa

“Create a platform to train the brain with coding challenges, show creativity in analytical thinking and critical problem-solving and improve team energy and commitment.” Thus, MoraXtreme is here. The 6th installment of MoraXtreme, Sri Lanka’s largest algorithmic coding competition, organized by the Computer Society, IEEE student branch of University of Moratuwa student branch was held on 10th of October 2021. A 12-hour coding battle took place via HackerRank platform to enhance and boost the analytical and critical thinking, mathematical skills and coding skills of the participants with the intention of enhancing the number of global top ranks from Sri Lanka in the IEEEExtreme; the most exciting international coding competition. The competition was open to interested participants representing the University of Moratuwa as well as participants representing any university across Sri Lanka. The registration process of teams with a minimum of one member and a maximum of 3 members of choice commenced from 20th of September to 6th of October. A total of 220 teams signed up for the challenge in the registration period. An awareness session was held on the 3rd of October 2021, to give a brief understanding to the competitors how the competition takes place and how they should prepare for the competition in advance. Mr. Mevan Wijewardena, who is currently a lecturer at the Department of Electronics and Telecommunication Engineering, University of Moratuwa, Mr. Nadeeshan Dissanayake, currently a software engineer at WSO2 and Mr. Heshan Padmasiri, currently a software engineer at WSO2 were the guest speakers for the session. Collectively, they were able to secure the 1st place of MoraXtreme 5.0, as well as the global 52nd place in IEEEExtreme 14.0 competing as a team from the University of Moratuwa. The enthusiastic participants got a chance to direct their questions to guest speakers after the session. A practice playground for the competition was opened on 9th of October 2021 and participants were able to practice coding on the HackerRank platform. On the 10th of October, from 6.00 am to 6.00 pm, the competition was opened and competitors were to come up with algorithmic solutions to the challenges in the competitions that appeared through the HackerRank platform. All challenges which were designed and tested by an experienced and talented “Question panel” had predetermined scores and the score achieved by a participant for a specific challenge is calculated by the number of test cases that the competitor was able to complete successfully. On 12th of October, the winners of the competition were announced after the solutions were reviewed by the “Question panel” and after being checked for plagiarism. Revolt, EyeCoders, Impostors, ExpelliCodus, GAP, AmateurX, DragonCoders, TeamSync, TechFlow and Think were the 10 teams that topped the leaderboard after an intensive competition. ‘Team Techflow’ was crowned as the champion of MoraXtreme 6.0 while ‘Team EyeCoders’ and ‘Team Impostors’ secured first runners up and second runners up respectively. The winners were awarded valuable cash prizes and certificates. The Computer Society of IEEE University of Moratuwa Student Branch was able to successfully conclude MoraXtreme 6.0 with the hope of organizing such an amazing experience for upcoming years as well.



Cyberhat 1.0

Nawodya Ishan Nimeshana | Undergraduate | Sri Lanka Technological Campus

CYBERHAT 1.0 was the second project organized by the IEEE Computer Society Student Branch Chapter of Sri Lanka Technological Campus in order to provide a Practical Based Cyber Security Workshop for the cyber security enthusiasts COVID-19 pandemic.

Cybersecurity is one of the hottest career options in today's world and with every advancement in technology as well as in the Internet space, the demand for cybersecurity experts across the globe is increasing at a rapid pace. Also, it needs a massive amount of knowledge to become a cybersecurity expert to handle some of the sophisticated threats. This workshop was a great opportunity for all the Individuals who are interested in cybersecurity including Engineering, Technology, and Computing undergraduates, Freelancing and self-learning individuals, Fresh Intern undergraduate students in the Information Technology Industry, and Information Technology motivated school students in Sri Lanka. The workshop was successfully conducted by **Jude Myuran. K**, one of the most experienced personalities in the Cyber Security Industry. He is an expert on Network Security, Cloud Computing with MSc. Network & Information Security – Kingston University | UK and BE. Electronics & Communications - Visvesvaraya Technological University | Bangalore | India.

The **main objectives** of this workshop are to introduce Cyber Security and the ethical hacking field using practical based skills (penetration testing, bug bounty, etc..) therefore it built interest among audiences. And also, to develop Cyber Security skills of the individuals who have already an interest in this field.

This workshop has been a milestone for Cybersecurity Undergraduates as they will master the essential cybersecurity skills with practical knowledge. This workshop was delivered as an interactive video session through Zoom Platform on the 3rd of January starting from 3.00 pm and all the participants were awarded a valuable certificate after proving their knowledge after the workshop through a graded online skill quiz.

CYBERHAT 1.0 was concluded successfully with more than 650+ participants including India and Pakistan and more than 500 students were able to gain certificates obtaining more than 75% marks for the skill quiz. There was overwhelmingly positive feedback from the participants. Many participants requested the second phase of this workshop in the coming future.



CYBERHAT 1.0
Getting started with
Cyber Security and Ethical Hacking

Guest Speaker:
Jude Myuran.K
Architect - Secure Infrastructure
Cyberior Infosec Pvt Ltd
MSc. Network and Information Security
BE. Electronics and Communications
CCNP-Security | CEH | OSCP | CISM

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Cyber-Security?

3rd JANUARY
SUNDAY

3.00 PM
ONWARDS

zoom

GET AWARDED WITH A
VALUABLE CERTIFICATE

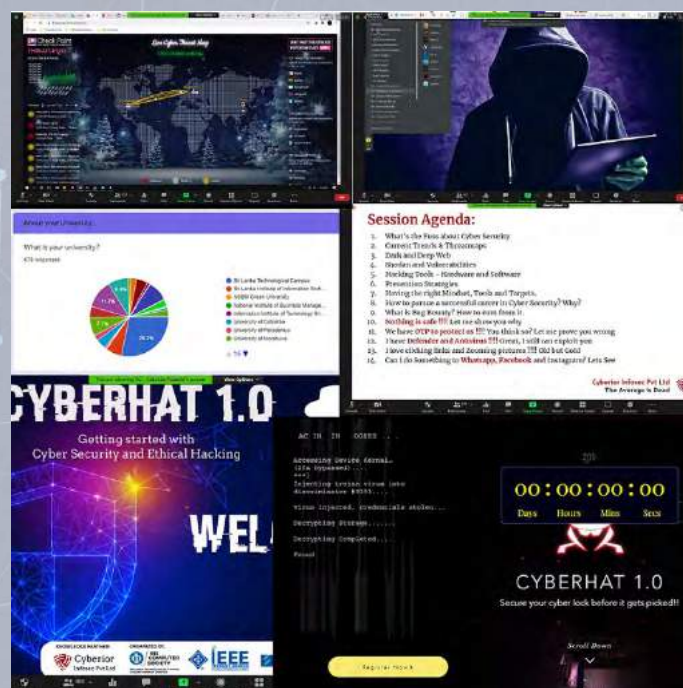
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KNOWLEDGE PARTNER: **Cyberior Infosec Pvt Ltd**

ORGANIZED BY: **IEEE COMPUTER SOCIETY**
SRI LANKA TECHNOLOGICAL CAMPUS
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CYBERHAT 1.0
Getting started with
Cyber Security and Ethical Hacking

WELCOME

00:00:00:00

Days Hours Mins Secs

CYBERHAT 1.0
Secure your cyber lock before it gets picked!

Scroll down

AC 23 21 0085

Accessing Service (Gmail) (2FA Required)...

Installing system virus lake (Downloaded) 80%

Using critical, problematic shiden...

Decompiling program...

Failed

What is your university?
CTB interest

What is the main reason for Cyber Security?

Session Agenda:

1. What is the New About Cyber Security?
2. Current Trends & Technologies
3. DNS and Deep Web
4. Operates and Subdomains
5. Hacking Tools - Hardware and Software
6. Windows Operating
7. Managing the rights to protect, the data and Targets.
8. How to protect a successful career in Cyber Security? Why?
9. What is "Bug Bounty"? How to even find it?
10. Something is safe!!! Let me do one more thing.
11. We have OSCP to protect our IT's, the attack and? Let me give you warning.
12. I have malware and Anonymous TTP covers, I still can't catch you.
13. I have thinking links and detecting programs I'll do it for you!
14. Can I be searching in WhatsApp, Facebook and Instagram? Let's see

How to start a career in UI/UX

Nethmini Bandara | Undergraduate | Wayamba University of Sri Lanka

The Covid 19 pandemic has made us work from home, study from home and do many of our day today day tasks virtually. The possibilities of getting opportunities and experiences to shape our career paths have been hindered by the current situations. So to ease the stress and as a helping hand, we thought of bringing a worthwhile session on a modern, trending, and rising topic.

The IEEE WIE student branch affinity group of Wayamba University organized a webinar on 'How to start a career in UI/UX' on the 4th of September 2021 via zoom platform for everyone who is passionate about starting up with UI/UX. The webinar was a great success with more than 200+ participants.

The guest speaker for the day was Ms. Sandaru Paranehwa a user experience lead designer currently working at H2O.AI. She conveyed a lot of valuable information that will be important for a beginner to get started and carry on. She gave a well appealing introduction to the topic, explained the difference between UI - User Interface and UX - User Experience through examples from web pages, and made the points clearer through a simple demonstration. Also she marked out the career paths in the field, and how to get started as a newbie. At the end, we had a Q&A session where many attendees raised their doubts and asked for further details, and Ms. Paranehwa made clear clarifications for those all.

The feedback we got at the end of the session was really impressive as many were highly satisfied with the session and had stated that they learned a lot. Also they were thankful for bringing an up-to-date but less spoken topic onto the stage.

We as a team are focusing on conducting sessions on more valuable, advanced, and latest topics in the near future too.



CyberShield 2021

Kavindu Dulanjana Perera | Undergraduate | Sri Lanka Institute of Information Technology

CyberShield 2021 was a 2-day, virtual event organized by the IEEE Computer Society of IEEE Student Branch of SLIIT, with the sole aim of providing the participants with a basic knowledge on Cyber Security and how it would have its roots running deep in Cyberattacks on all kinds of companies, organizations as well as the lives of numerous individuals. The event was open to all undergraduates and any Cyber security enthusiast who wanted to pursue a career in cyber security.

The main purpose of this event was to provide a basic knowledge in the field of cyber-security to its participants. The basic concepts of cyber-security such as cyber-security concepts, types of attacks, best practices and extortion software, red teaming, penetration testing, hacking tools, job opportunities and much more to discuss. The aim of this event series was to provide students with broad and contradictory knowledge from the basics to the field of cybersecurity. It was more advantageous for students who wanted to specialize in cyber-security and pursue a career in fields related to cyber security.



The first day of the event was conducted by Mr Kavinga Yapa Abeywardena, a distinguished lecturer from Sri Lanka Institute of Information Technology. This session was conducted on the basics of cyber-security, mainly focusing on the theoretical approach to cybercrimes, industries, common prevention strategies, technologies, and concepts of cyber-security and more. Thus, the first day ended successfully, giving participants a conceptually better theoretical idea about cybersecurity, which helped the participants to start the next session which discussed the practical approach towards cyber-security more successfully.

The second day of the event was conducted by Mr. Jude Mayuran, who is the Principal Architect at Cyberior Infosec Pvt Ltd. He

provided a better hands-on experience of red teaming, penetration testing, tools, trespassing, job opportunities and much more. A wide range of practical approaches were discussed, giving participants an understanding of the future. The participants were given the opportunity to watch how to hack CCTV cameras, android smartphones, social media and more, which was very interesting to all participants. At the end of both sessions, the forum was open for a Q&A session and participants were given the opportunity to interact with our esteemed guest speakers on our topic.

The objectives of the event were achieved, and it could be clearly observed by considering all the positive feedback from the participants and the appreciation of the special guests. Valuable networking opportunities were open between the participants and the speakers, and participants had the benefit of

clearing their doubts on cyber security with the interactive information session. The feedback for the session was extremely positive and most participants requested another CyberShield event in the near future.

The event was completed successfully with over 600 participants from various universities, on both days, who participated through Zoom as well as the Facebook live. The event concluded with over 5 hours of valuable knowledge shared between its participants. Overall, the event was a huge success, and all this would not have been possible if not for the constant support given by the Organizing Committee of CyberShield, the efforts of the speakers, and everyone who helped immensely to make this a memorable event for everyone.



Hacktron v1.0

Nawodya Ishan Nimeshana | Undergraduate | Sri Lanka Technological Campus

The IEEE Computer Society Student Branch Chapter of Sri Lanka Technological Campus has organized "HackTron v1.0" powered by 99x, the first-ever Virtual Game Development Bootcamp and Hackathon in Sri Lanka to impart knowledge on game development for all enthusiasts and to make new impetus to the game development industry in Sri Lanka. To enhance that aim, we launched the project; "HackTron v1.0" with the highly motivated participation of over 30 universities in Sri Lanka through 90 degree programs related to the Information and Communication Industry.

The project consists of three main chapters,

- Chapter 01; Game Development Bootcamp
- Chapter 02; Inter-University Game Development Hackathon
- Chapter 03; RiseUp - Industrial talks with entrepreneurs

As the first chapter of the project, it consists of 10 continuous days of Bootcamp held from 30th September to 09th October 2021. Through the Bootcamp, enthusiasts were able to sharpen their knowledge on 3D & 2D Game Developing, Concept Art Designing, and 3D Designing with Unity Engine, to compete in the Hackathon to be the best. The entire Bootcamp was conducted by Resource Persons from Prodigy Interactive, RAM Studios, and Heladev. Upon completion, participants were evaluated by four tasks; Concept Art & 2D Designing, Scripting Task, 3D Graphic Designing, and Terrain Designing Task, and top performers in each task were awarded specialization certificates and 2 million worth of game development scholarships.

Parallel to both chapters, a Panel Discussion named “RiseUp -Industrial talks with entrepreneurs” was held for 3 days about the future of the Industries; IT, Game Development, and its startups with the presence of well-recognized entrepreneurs from ShoutOUT Labs, Prodigy Interactive, RAM Studios, Youlead, Magicbit(Pvt)Ltd and Fcode Labs, with the aim of imparting the knowledge on startups for the younger generation, willing to bloom in those industries.

As the second chapter of the project, the inter-university Hackathon consisted of 6 weeks held from 11th of October 2021 to 14th of November 2021 in three main rounds; first round, semi-final round, and final round. Teams, consisting of 2-5 members in the same university were asked to submit a game development idea through a proposal, under the given structure for the first round. Thereafter, 30 teams with the best gaming concepts were selected by a judging panel and asked to provide their gaming ideas through a proposal with the demonstration in front of a judging board for the semi-final round. In the final round, top-ten gaming ideas were selected among them and invited to demonstrate their developed game in front of the judging board, after being given 2 weeks to implement the gaming ideas as their preference. Upon completion of three rounds, the top three developed games were awarded the cash prizes of

- Rs. 100,000 for the winner
- Rs.75,000 for the first runner-up
- Rs. 50,000 for the second runner-up

and, meanwhile, the Most Popular Game Trailer Video was selected through a voting round. Apart from that, two teams were awarded internships at RAM studios as special awards and all competitors were given a participation certificate.

In conclusion, we were able to carry out the responsibility of developing the strategic initiative HackTron v1.0 as the first-game development platform for enthusiasts in Sri Lanka. With the hope of making a new revival in the fields of IT and game development, we are planning to launch this project in the next coming years, targeting to reach the international stage as the newest impetus in Sri Lankan gaming history.

HACKTRON v1.0
Game Development Bootcamp & IEEE Student Branch of SLTC - 1 / 22

DAY 01
Introduction to Game Development with Unity

Mr. Yasith Sirisena
CEO and founder of Prodigy Interactive

30th September
6.00 PM Onwards

Organized by: IEEE COMPUTER SOCIETY, IEEE SLTC
Powered by: OOLY
Bronze Partner: virtusa
Digital Media Partner: ARTECULATE
Mentoring & Knowledge Partner: Prodigy
Community Partner: Design, Game, Dev, etc.
Scholars Partner: etc.

Day 01 - Introduction to Game Development with Unity | HackTron v1.0
8,168 views • Streamed live on Sep 30, 2021

Chat: SHOW CHAT REPLAY
HackTron v1.0 - Game Development Bootcamp & IEEE Student Branch of SLTC - 1 / 22

Playlist:

- Day 01 - Introduction to Game Development with Unity | HackTron v1.0 (1:19:53)
- Day 02 - Unity Basics & Terrain Designing | HackTron v1.0 (2:03:58)
- Day 03 - C# Scripting in Unity Part I | HackTron v1.0 (2:21:35)
- Day 04 - Scripting in Unity Part II | HackTron v1.0 (2:29:45)
- Day 05 - Designing and Development of a Video Game... (2:44:01)
- Day 07 - Designing of complete 2D Game | HackTron v1.0 (1:41:34)
- Day 08 - Introduction to 3D

DesinX

Udari Wijamuni | Undergraduate | University of Colombo School of Computing

The University of Colombo School of Computing is a Sri Lankan Institute of Higher Education that has been honing the ICT knowledge of students for nearly 20 years. IEEE Computer Society Student Branch Chapter of the University of Colombo is an oasis where students can sharpen their valuable ICT capabilities.

This society has organized a large number of sessions of various kinds to enhance and sharpen the design knowledge of our university ICT students. DesinX is one of the most advanced workshop series out there. The workshop lasted for three days with great success. All the students who took part in it worked hard to illustrate how to complete a creative task step by step for future missions. DesinX's main focus was on how to go on a successful journey that will amaze you with your creative and practical skills. Over the course of three days, a combination of these was presented under the two main sources of design concepts and photoshop.

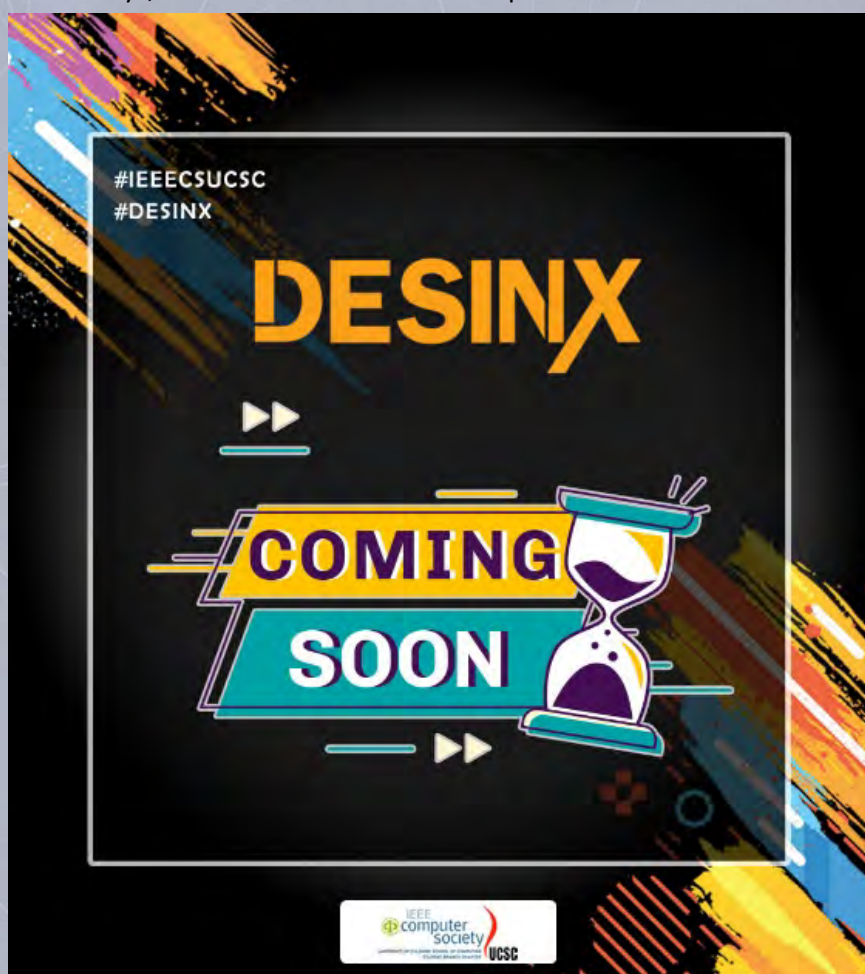
There is also a saying "Great design is advantageous and adventurous" which reflects the essence of one of the two directions.

The first session took place on the 18th of August 2021 through Zoom, with over 100 UCSC undergraduates in attendance. This was conducted by Dilini Bandara, 2nd-year undergraduate, University of Colombo School of Computing. It's a fascinating workshop that goes from the simplest step of Photoshop to the next step.

The second session took place on the 20th of August 2021 through Zoom, with over 100 UCSC undergraduates in attendance. Shan Dilranga, the second-year undergraduate at UCSC, presented the second winning session. The rest of Photoshop used his own methods to help everyone move forward. The third session took place on the 22nd of August 2021 through Zoom, with over 100

UCSC undergraduates in attendance. This was moderated by Sanduni Kariyawasam, a graduate of UCSC, former Design Master of IEEE CS Student Branch Chapter of UCSC, and UX Designer of IFS Sri Lanka. Information on Design Concepts was successfully delivered on the last day with a good experience.

At the end of each of these three days, they made sure to hold around and a Q&A round to resolve the issues we had. I would like to thank all the organizers who have rendered such an invaluable service as well as all the three who have been conducting the sessions for three days. We hope that we will be able to hold a number of such opportunities in the future to hone the knowledge and skills of university students.



Highlights events of the IEEE Computer Society Student Chapter of Informatics Institute of Technology

Ruwandieka Peiris | Undergraduate | Informatics Institute of Technology

The IEEE CS Student Chapter of Informatics Institute of Technology, which was Initiated in 2017, has been a cornerstone in most IT-related events in Informatics Institute of Technology. Since its inception, it has successfully conducted several major events including multiple workshops regarding emerging technologies, hackathons and programs which were focused on empowering communities about entrepreneurship. It's worth reflecting on the various events organized by the student branch chapter of Informatics Institute of Technology over the last 12 months.

Webinars

1. Industry Xpectations

The year started off with the Webinar “Industry Xpectation” which was a session focused to enlighten the students pursuing their career in the IT and Business fields to gain an insight on what the future holds for them. Mr. Dinuka Piyadigama; a trainee Associate Software Engineer at Zone24*7, Mr. Tivvyan Karuneswaran; a Global Intern at hSenid Mobile Solutions and Mr. Haritha Naurunna; an Intern at Motion Miracles were invited to give a glimpse of what would the employers expects from the interns.



2. Flutter Webinar

The next educational webinar was held on Flutter which is the Google’s UI (user interface) toolkit for the building beautiful, natively compiled application for the mobile, web, and desktop from a single codebase. The webinar was focused on producing an overview of native end-experiences, widget performances and app architecture. The insightful event was graced by the presence of an expert in the field of Flutter, Mr. Avinath Gunasekara, the Co-founder and Director of CityCo and the Co-founder of the Colombo Flutter Community fluttered the participants to UI (user interface) designing.



Workshops

1. AI workshop

The eye-opening set of online workshops to give the students a hands-on experience on what it is like to be building an AI of their own. The participants gained ability to learn and build on AI based model by the "Live Coding" AI workshop. The guest speaker Mr. Dulan Dias; a Ph.D. student in Data Science and Artificial Intelligence, guided the participants through the exhilarating journey.

1. Git and GitHub Workshop

The Git and GitHub workshop was organized parallel to IEEEExtreme 15.0 global coding competition to give all the Git and GitHub enthusiasts who take part in the competition to get a better understanding of git and how to use it for the competition. It is a system for managing snapshots of plain text projects. Mr. Sachin Amarasinghe, a Senior Software Engineer at iTelaSoft was the guest speaker of the workshop.

Hackathons

1. Idea Matrix

Idea Matrix was an online hackathon exclusive to the second year Business Information Systems undergraduates of Informatics Institute of Technology. Initially, a report covering the entire proposed project including a summary of the solution along with the necessary features and additional concepts being incorporated into the final deliverable was submitted by the contestants.

The team Aztecs won the first prize and team Element-Six and D&D and Won Tribe won the second and third places respectively. The teams that emerged victorious in Idea Matrix awarded prized worth 20000 LKR and all the participants were awarded by participation certificates.

While the IEEE CS Student Chapter of Informatics Institute of Technology is excited to close the chapter on 2021 and head into 2022, we want to extend our sincere gratitude to all the collaborators, members for sharing their valuable time and knowledge.

we want to extend our sincere gratitude to all the collaborators, members for sharing their valuable time and knowledge.



Let's talk about Solid Principle

Mayooraka Srikantharasa | Undergraduate | University of Jaffna

"Let's talk about Solid Principle" is a virtual session organized by the IEEE Computer Society Chapter of the IEEE Student Branch of the University of Jaffna. The session was held on 21st June 2021. It's about Solid principles in Object-Oriented Programming and writing clean and optimized code. This session opened to all undergraduates and interns who struggle to get clean and optimized code.

Mr.Dhanushka Chandana, explained what Solid Principles are in Object-Oriented Programming in an interactive manner. (Mr.Dhanushka Chandana is working as a Tech lead.) He is also a tech content creator and passionate about developing innovative software solutions. He loves participating and contributing to tech events and meetups to support improving tech awareness within the community through public speaking as well.

The session conducted as a presentation session. Mr.Dhanushka Chandana started with a small introduction about himself and moved along the agenda as follows:

- Explained Solid Principles in Object-Oriented Programming.
- Explained the following principles with examples
 1. The single-responsibility principle
 2. The open-closed principle
 3. The Liskov substitution principle
 4. The interface segregation principle
 5. The Dependency principle

The session followed with Questions and Answers. There were many questions dropped in the Zoom chat related to Solid Principles and its applications. The question-and-answer section was made very interactive by our speaker and interested participants.

The purpose of this event was achieved, and it could be observed through the good feedback from the participants. Our guest speaker was appreciated by our committee members. The event completed with more than 60 participants from IEEE SB-UoJ. This session helped our participants to make software designs more understandable, flexible, and maintainable.

Let's talk about Solid Principles

Mr. Dhanushka Chandana
Associate Tech Lead
Cambio Software Engineering
Lead at Facebook Developer Circle: Colombo

Dhanushka is working as an associate tech lead. He is also a tech content creator and passionate about developing innovative software solutions. He loves participating and contributing to tech events and meetups to support improving tech awareness within the community. Dhanushka loves to engage with the community through public speaking as well.

21st June 2021
6:00 PM

IEEE COMPUTER SOCIETY
UNIVERSITY OF JAFFNA
STUDENT BRANCH CHAPTER

zoom

SOLID Principles

S Single Responsibility Principle

O Open-Closed Principle

L Liskov Substitution Principle

I Interface Segregation Principle

D Dependency Inversion Principle

Month of CodeGenix

Nawodya Ishan Nimeshana | Undergraduate | Sri Lanka Technological Campus

The Month of CodeGeniX is a series of interconnecting programs organized by the IEEE Computer Society Student Branch Chapter of SLTC. Thereby aiming to provide all computing and tech enthusiastic participants with the knowledge and guidance to step towards the IT industry and mark their ground.



The first phase was executed as a Panel Discussion on “How to be successful in the IT Industry”, on the 15th of May from 6.00pm onwards via Zoom and Facebook live. The well adept guest speakers who joined hands with the panel discussion were Dr.Dhammika Elkaduwa, Senior Lecturer at Department of Computer Engineering at University of Peradeniya, Mr. Ahesh Perera, Associate Manager of Software Engineering at Wiley Global Technology and Ms.Chathurangi Edussuriya, Software Engineer at Sysco LABS. The session was moderated by Mr.Yohan Pandigama, Lecturer at School of Computing & IT of SLTC. It was the single virtual event that was well attended by more than 1000 participants for the first time in the history of SLTC.

Road to CodeMania’21: Python Fundamentals and Algorithmic Programming, a workshop series, consisting of four informative sessions was the second phase of "The Month of CodeGeniX". It covered all the basics for beginners to start programming with Python and step by step developed their knowledge to an intermediate level in Python. Four workshops were conducted by Mr. Yohan Pandigama and Mr. Suren Sritharan on 22nd, 23rd, 29th, 30th of May from 6.30pm onwards via Zoom, Facebook and YouTube live. Finally, the participants were evaluated on the knowledge they grasped throughout the workshops by conducting the Algorithmic Coding Challenge via HackerRank. Higher number of students had participated in the evaluation phase and received certifications according to the final marks they obtained.

The third phase was AdaGrad - "Introduction to Machine Learning", and it delivered the first steps into mastering machine learning skills. The workshop took place on the 5th of June from 3.00pm onwards, through Zoom, YouTube and Facebook live. The resource person was Mr. Thakshila Thilakanayake, one of the most experienced personalities in the field.

After the workshop, the participants had to take a quiz that evaluated their knowledge based on the content delivered through AdaGrad. Those who obtained the bench-mark score received a valuable certificate for successfully completing the workshop.

CodeMania v2.0 was the fourth and final phase of the highly successful month-long project series. It was brought forward as the first-ever algorithmic coding competition at SLTC. Contestants were allowed to team up in groups of 3 to compete in the challenge. It recorded an impressive 140+ registrations and nearly 100 teams joined in for the challenge. It took place on the 12th of June from 6.00pm onwards via HackerRank. The champions, first-runners up and second-runners up received cash prizes worth 15 000 LKR, 10 000 LKR and 5000 LKR respectively. The top 10 teams were awarded SWAG packs and the teams that scored above the cut-off marks were awarded with valuable certificates. It certainly became a successful stakeholder of the registrations for IEEEExtreme 15.0 representing SLTC this year as a majority of these teams were contestants at CodeMania v2.0.

The reach of The Month of CodeGeniX was impeccable since it recorded more than 15000 participation from all around the world. The IEEE Computer Society SBC of SLTC continuously focuses on providing insights into important subject areas via high-quality projects, and Month of CodeGeniX was no exception. With the positive feedback from participants and industry professionals, the event series was a resounding success.

Recording **LIVE** on Custom Live Streaming Service

MONTH OF
CodeGeniX
THE OPPORTUNITIES ARE INFINITE

with our greatest appreciation
we hereby present

Ms.Chathurangi Edussuriya
— Panelist —

we appreciate
your humble and dedicated time

IEEE COMPUTER SOCIETY
SRI LANKA TECHNOLOGICAL CAMPUS

IEEE
STUDENT BRANCH

SLTC

"Introduction to IEEEXtreme" webinar became a success

Dinushika Chithrani | Undergraduate | University of Sri Jayawardenapura

It was when 70,000 participants, 30,000 teams, 5,000 proctors, 3,000 ambassadors, 2,500 Colleges and Universities, 90 plus Countries were waiting for IEEEXtreme 15.0 in 2021. Undoubtedly, the most awaited programming contest for most competitors all over the world is the IEEEXtreme competition. Teams of IEEE Student members were bustling about preparing to compete in 24 hours against each other to solve a set of programming problems. The registrations opened in this period for another exciting edition of one of the largest international 24-hour programming competitions. IEEEXtreme is a coding competition that IEEE organizes. It is

the world's largest association of technical professionals standing for the Institute of Electrical and Electronics Engineers. 'Introduction to IEEEXtreme' was an impactful project which was purely hyped by this IEEEXtreme competition vibe. We, the IEEE Student Branch of the University of Sri Jayewardenepura initiated the webinar with the sole purpose of giving an idea about the IEEEXtreme competition to the students in the University of Sri Jayewardenepura. The webinar was to spread awareness about IEEEXtreme among the students and better understanding about it. This motivated students to participate in the competition by showing the benefits— moreover, we resolved any complications students who were willing to participate in the contest with IEEEXtreme. We had a target of 100 participants, and altogether, we focused on increasing the number of participants to the competition from University of Sri Jayewardenepura with proper acknowledgement.

First and foremost, on the 15th of September, the project committee members and the executive members gathered with the scope of planning the event towards success. We published a poster series on social media for the event beginning from the 20th of September until the date of the event to attract students to participate in the webinar. While the competition was locked to date on the 23rd of October, there were 28 days left for the IEEE's most prestigious programming competition, when the webinar took place on the 25th of September. Mr. Indrajith Ekanayake, an Engineer, writer, and public speaker who currently works as a lecturer at open university, the section lead of IEEEXtreme 15.0, conducted the webinar with an inspiring speech to the audience while encouraging them to participate in the IEEEXtreme competition. He filled the rest of the time with sharing his experiences on past contests while giving students an idea about the structure of IEEEXtreme. We marked the end of the webinar with the Q and A session, and participants had a valuable time as they clarified their doubts and questions with the guest speaker.

The webinar became a success with 60 participants. The success of this webinar was beyond everyone's expectations as we, the organizing committee received admirable feedback on the webinar from the participants. Thus, the project "Introduction to IEEEXtreme" ended on a high note marking another remarkable milestone for the IEEE Student Branch of the University of Sri Jayewardenepura and hoping for more future events to educate and guide our students towards participating in more challenging competitions. With a target of 100 participants for next year's event, we ended this webinar as one of the most successful events of the year.

Learn the Fundamentals of the Worlds' Oldest Programming Language - HelloC

Mudheera Kariyawasam | Undergraduate | University of Colombo School of Computing

With the vision of being a Global Leader in Computing, Advancing the Frontiers of new knowledge through Learning and Research, the University of Colombo School of Computing has been one of the leading higher education institutions of ICT for over 20 years. IEEE Computer Society Student Branch Chapter of UCSC is one of the Student Branches of IEEE which is the world's largest technical, professional organization dedicated to advancing technology for the benefit of humanity.

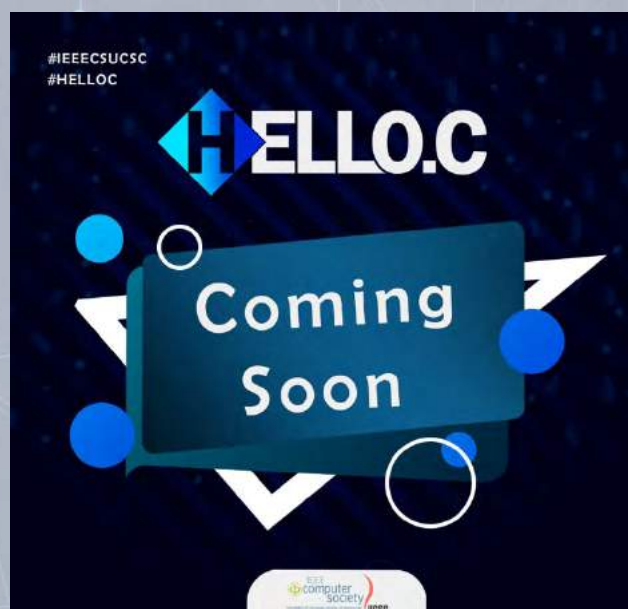
IEEE computer society serves as a source for the community of Technology leaders by having more than 60000 members, 400 local regional chapters, 200 plus sponsors, and more than 40 technical communities. And it has published 17 scholarly journals and 13 magazines featuring the latest technology trends. As a whole, the IEEE Computer Society provides Professional education and training by partnering with major institutions and corporations.

To make the vision of IEEE visible the student branch chapter of UCSC has conducted various events to showcase the hidden talents of vibrant individuals and HelloC is one of them. It was a new initiative on facilitating programming knowledge in C language, especially for the first-year undergraduates of UCSC by making them confident in programming and boosting their programming skills which are needed for hackathons and accelerated programmers which would help them in their future career paths.

The sessions went on for 4 days commencing from 10th July. The initial session was conducted by Ayisha Siddeequa and Ashani Imalsha, 2nd-year undergraduates at UCSC about competitive programming which is a popular topic among UCSC undergraduates at present. The session was held via Zoom with the participation of 100+ delegates.

The next sessions covered the basics of C language which helped the delegates to learn and understand the language from the beginning itself. Dhanushka Sadakalum Gunawardhana, B. Fathima Ilma, and W.A.A. Yohan Nayanajith, second-year undergraduates at UCSC were the resource persons for the sessions which were held on 17th July, 25th July, and 8th August respectively. The sessions were held via Zoom with more than 100 participants.

As a result of the new initiative, HelloC the first-year undergraduates at UCSC were able to get thorough knowledge on C programming language, which helped them with their 1st-year academics as well. With the massive support of the 2nd year undergraduates and the organizing committee, the event became a real success.



Preparing an effective CV & Maintaining a good LinkedIn profile

Mayooraka Srikantharasa | Undergraduate | University of Jaffna.

“Preparing an effective CV & Maintaining a good LinkedIn Profile” is a virtual event organized by the IEEE Computer Society Chapter of IEEE Student Branch of the University of Jaffna. This is the first event done by the newly established IEEE Computer Society Student Branch Chapter of the University of Jaffna. The event was held on 14th June 2021. This event was opened to all undergraduates and job seekers who wanted to prepare themselves professionally for a job.



The event focused on educating students to create better and effective CVs and maintaining good LinkedIn profiles to get an edge at job interviews and have better opportunities available for them. Event was conducted by Ms. Dinuka Tharangi Jayaweera, a Business Analyst at Sysco LABS.

She discussed about following topics as already mentioned in the agenda as a presentation session

- Explained what is a CV and the structure of a CV
- Tips on writing an effective CV
- Finishing up a good CV
- Usage of Applicant Tracking Systems
- Introduction to LinkedIn
- Creating a clean profile and using it as a CV
- Connecting and collaborating with others through LinkedIn



The aim of the event was achieved, and it could be observed by considering all the positive feedback from the participants. Speaker shared her own experiences and expectations during the interview panel. The event followed with Questions and Answers. There were many questions dropped in the Zoom chat related to CV, LinkedIn profile, writing cover letters, and facing interviews. The event completed with 140 participants.

Road to GSoC

Nawodya Ishan Nimeshana | Undergraduate | Sri Lanka Technological Campus

The Google Summer of Code (GSoC) is a global program that matches students with open source. GSoC Uses free software and technology. & also related organizations to write code. The main idea is to get students involved in and familiar with the open-source community. Goals of the Program Inspire young developers to begin participating in open source development. Help open source projects identify and bring in new developers. Get more open source code written and released for the benefit of all. GSoC's whole program is maintained by students, mentors & organizations. Importance of the program the student will get to learn about the working of an industry in just 3 months. The student's software development skills will be enhanced during this period. You will build a network of people having the same mindset.

As the inauguration project for the year 2021, the IEEE Computer Society Student Branch Chapter has decided to hold an awareness session about

Google Summer of Code as Path to GSoC. What is Google Summer of code? How does it work? What is the purpose of Google Summer of Code? History about it and How to explain how to apply. This webinar provides inspiration to university students who are interested in coding, as well as those who do not understand computer coding. This awareness session will be a milestone for Undergraduates who are interested in software development and for those who want to gain some knowledge about the Google Summer of Code. In a competitive education system, academic knowledge alone is not enough, practical knowledge is also very important. Practical knowledge is especially important in the field of information and communication technology. This webinar is very important for students studying Information and Communication Technology as they have the potential to gain a great deal of practical knowledge through Google Summer of Code. This session would be interesting for those who love coding like to do innovative things, and also for students who don't know the way this program is proceeding.

The targeted audience of this webinar was Information and Communication Engineering students, The students from the school of computing of SLTC. Other SLTC students who are interested in coding and innovations. In this project, there was good industry exposure for competitors participating in Google Summer of Code due to the involvement of industry organizations in Google Summer of Code. Indeed, this was a successful project as the inauguration project for the year 2021.

Road to GSoC
Awareness Session

Google Summer of Code

Speaker

Are you willing to have an immense value on your programming skills? Let's code and celebrate this summer!

"Google Summer Of Code" is for students who are interested in open source software development and choosing a better way to your programming career

Mr. Kasun Vithanage
Owner/ Co-Founder At Syeta Labs
Google Summer of Code 2018 Mentor @ Joomla

3rd April

Zoom

3 p.m Onwards

Join with us and get the guidance of an experienced mentor.

Organized By: IEEE COMPUTER SOCIETY SRI LANKA TECHNOLOGICAL CAMPUS STUDENT BRANCH CHAPTER

Knowledge Partner: Syeta Labs

IEEE STUDENT BRANCH

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SLIIT Xtreme

Kavindu Dulanjana Perera | Undergraduate | Sri Lanka Institute of Information Technology

SLIIT Xtreme Programming competition was introduced by the IEEE Computer Society of Sri Lanka Institute of Information Technology (SLIIT) in collaboration with the Software engineering Student Community of SLIIT to introduce students to competitive programming and encourage them to participate in IEEE Xtreme which is a flagship event of IEEE. This event took place on the 25th of September and was very similar to IEEE Xtreme. This event was a 12-hour event and was hosted online this year.

The event consisted of a series of webinars to introduce the participants to what competitive programming is, how to participate in such events and how to work in teams to solve programming problems. Dr. Nuwan Kodagoda; the head of Computer Science and Software Engineering at SLIIT, gave the students an introduction to what competitive programming is and how it can be important for one's career. The next session was conducted by Dr. Shyam Renal, who is a senior lecturer of the faculty of computing at SLIIT. This session was very informative, and it discussed his personal experiences with competitive programming, his training techniques on various competitions and how to face competitions. Finally, the webinar was concluded by the Speech of Kavindu Perera, the Chairman of IEEE CS at SLIIT and ambassador of IEEE Xtreme at SLIIT.





Awareness Session



Dr. Nuwan Kodagoda
Head, Department of Computer Science
and Software Engineering



Dr. Shyam Reyal
(PhD), BSc (Hons) Eng - Senior Lecturer
Faculty of Computing



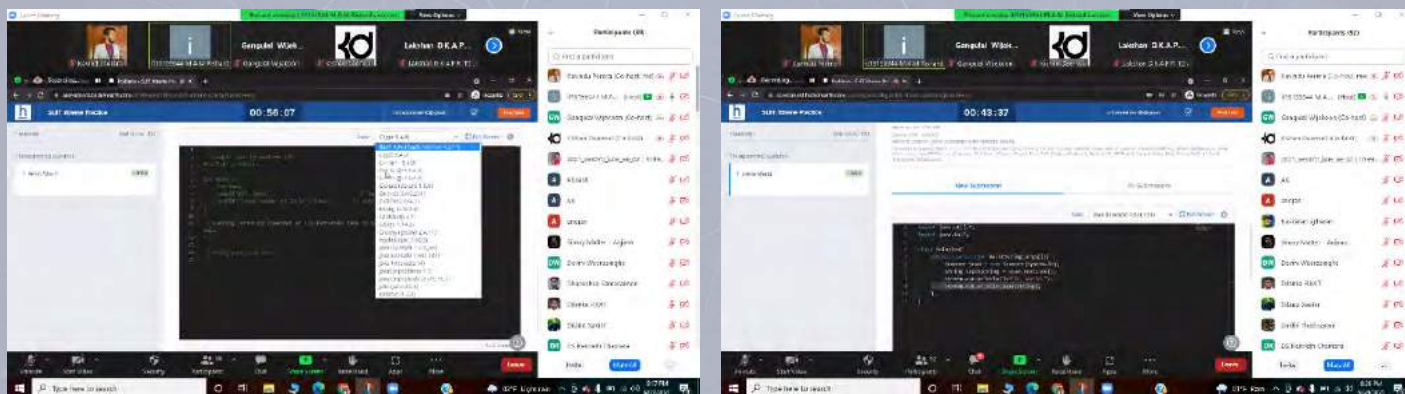
Kavindu Perera
Chairman, IEEE Computer Society of SLIIT
IEEE Xtreme Ambassador

10TH SEPTEMBER 7.00PM ONWARDS






The competition commenced at 8.00 a.m. with the participation of over 120 teams. The participants were monitored regularly by the proctors and continuously guided by the organizing committee to face any technical difficulties that may happen during the competition. The participants were given the opportunity to communicate with their teammates on private channels but were monitored live during the time of their participation. The results were displayed in real time on the SLIIT Xtreme website throughout the completion of the event at 8.00 p.m. by the congratulatory speech by Dr. Shyam Renal. Overall, the competition was a huge success, and all participants received a valuable experience on how to face IEEE Xtreme and other programming competitions.





Leader Board Update!!

<<< Leader board update after 10 hours..

#	Team Name	Score
1	Schrodinger's Team	2300
2	Nasty Owls	1375
3	Runtime Terror 2	1295
4	n00bCod3rs	955
5	CHOMU	910
6	Binary Matter	890
7	Scorpion	835
8	Curie	830
9	RedHats	830
10	ETH	755






A guide through the breadth of Backend Development

Pamudi Guruge | Undergraduate | University of Colombo School of Computing

The IEEE Computer Society Student Branch Chapter of UCSC plays a major role for the students in the University of Colombo School of Computing (UCSC). Out of the projects laid out by the society, “TechZen” goes by without a doubt as one of the most successful and beneficial events. It was a four-day session series for the second-year undergraduates as guidance for their first software project. The major goal was to familiarize participants with backend web application development and the four sessions were based on PHP fundamentals, CRUD with PHP, MVC Architecture, Ajax, and JQuery respectively. Certainly, a Q&A session was conducted for more descriptive learning and vivid demonstration of coding for easy learning.

The first session of “TechZen” was held on the 29th of May, 2021 via zoom virtual platform. It was great to see that more than 50 undergraduates from the University of Colombo School of Computing participated in the session series. Day 1 session was carried out by Chathura Rathnayaka and Chathura Wanniarachchi who are third-year undergraduates of UCSC. Undeniably, it was an interactive session that focused on the basics of PHP. Moreover, it encouraged the participants to continue their group projects. Following the first session, the second workshop was held on the 06th of June, 2021 via Zoom and more than 40 undergraduates from UCSC took part in. Dimuthu Lakmal and Ravindu Pramodya, who are also 3rd-year undergraduates from UCSC guided the participants on CRUD using PHP with a high degree of interaction going on.

Afterwards, on the 13th of June, 2021, the third session was held via Zoom with more than 70 undergraduates from the UCSC. Just like the aforementioned sessions, this was also conducted by two 3rd year undergraduates from UCSC, Thathsarana Dhanuka and Udara Weerasinghe. This interactive session focused on MVC Architecture using PHP to aid the undergraduates to improve their skills. The 20th of June 2021 marked the 4th and final day of the workshop series. It was successfully held with more than 35 participants from the UCSC via Zoom by two 3rd year undergraduates of UCSC; Mr. Vikum Kulathunga and Mr. Chamith Nimmitha. The session series ended with a focus on Ajax and JQuery.

Delving into the objectives of this event; providing more clarity in the development of backend, familiarizing the participants with the MVC design and how to apply it to coding, providing resources to create faster, better and interactive web applications, aware and upgrading the knowledge of the participants about Ajax and JQuery technologies were mainly focused on. Thus, it is safe to say that, as the objectives of the event were fulfilled, the workshop series was a success.



Thank You!

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