

ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE

n+1) fxn JCR y lim n²-x , +0 By $\lim MA = 1$ 4"+. yn < Zn $c_y \circ c_x$ $N \to R$ $n \ge n_0 \cdot (x_n - g) < \varepsilon + lo kal.$ $f(x), f(x)) \leq$ $x_n + y_n$ 2yn I <=>]q€[0,1): ∀x,x € X 13 + 13 h 0+0+ {xn1 $g) < \varepsilon$ $n \ge n_o \cdot (x_n - g) < \varepsilon$ lim min lok. min n.4. $\mathcal{X}_n: \mathcal{N} \to \mathcal{R}$ $\{x_{n}\} \cdot \{y_{n}\}_{df}^{=} \{x_{n} + y_{n}\};$ $\{x_{n}\} \cdot \{y_{n}\}_{df}^{=} \{x_{n} \cdot y_{n}\};$ $x_n \in Y_n \in Z_n$ X ٢... ٦ Fx. 7

IGNITE 2020-'21 Technical magazine

TABLE OF CONTENTS



1. INTRODUCTION

a. About the department

b. HOD's Message

2. STUDENT ARTICLES

3. FACULTY PAPERS

4. ALUMNI ARTICLES

5. INDUSTRY EXPERTS

6.EVENTS

7. TIPS FROM THE DEPARTMENT

a. A note on cracking campus placements

8. EDITORIAL BOARD

9. ACKNOWLEDGMENT



ABOUT THE DEPARTMENT

The Information Science & Engineering department aims to impart the foundational and dedicated skills in design, programming, user interface, etc. For graduating students, exciting career opportunities are available in all these areas across the industry, government, and entrepreneurship sectors. The Information Science & Engineering department has State-of-the-art infrastructure for teaching-learning, research and consultancy. The department has MOUs with leading IT companies and research organizations. It has full equipped Laboratories and Centre of Excellence. Postgraduate and Research Programmes of the department provides ample opportunities for the students to explore emerging technologies and do result-oriented research. The placement record of the department has always been impressive.





HOD'S MESSAGE:

Congratulations to the students and faculty associated to magazine committee for successfully publishing this issue of departmental technical magazine 'IGNITE2020'. 'IGNITE' is creating platform which provides an opportunity to the students and staff to express their original thoughts on technical topics and highlight the technical events conducted in the department. The magazine plays an instrumental role in providing exposure to the students to develop their technical skills and also command over the written language. It is a step towards building professional and ethical attitude in them. Students not only gain the knowledge about the latest technological developments and advancements through reading and writing articles but they also develop verbal and written communication skills. This issue has expanded its scope by introducing articles by major stakeholders. Apart from students and faculty, inputs have been collected from alumni, parents and industry experts. On concluding note, I would like to thank all the stakeholders for their involvement and encouragement and wish all the best for their bright future.

ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE



 $=5\left(\frac{n+1}{n}\right)\left\{x_{n}\right\}CR$ $\left\{x_{n}\right\} \subset R \underset{n=0}{\geq}$ $\int_{I} \frac{\mathcal{R}}{\mathcal{R}}$ Vn€. Bx lim 0<=> yn = 0 By $\lim |A| = 1$ RX:p cos2n/ -2n+3 $x_{n}+y_{n} \stackrel{c_{y}}{\longrightarrow} \mathcal{R} \stackrel{n}{\longrightarrow} n_{0}:$ $f(x), f(x)) \leq$ 9)<8 lokal. max; $\tilde{z} = \mathcal{F}_{q} \in [0,1]: \forall x, x \in \mathcal{X}$ n 13 n 0+0+ 1xni $n \ge n_0: (x_n - g) < \varepsilon$ lim min lok. min $\mathfrak{A}_{n}: \mathbb{N} \to \mathbb{R}$ $n \leq y_n \leq Z_n$ 35 N->00 g y







Insights into impact of augmented reality

Student name: Apoorva B M

Augmented reality (AR) is one of the biggest technology trends right now, and it's only going to get bigger as AR ready smartphones and other devices become more accessible around the world.

Augmented reality is being used in a myriad of ways today including as Snapchat lenses, in apps that help you find your car in a crowded parking lot, and in variety of shopping apps that let you try on clothes without even leaving home.

Here are just a few examples for AR in our everyday lives:

Enhanced navigation systems use augmented reality to superimpose a route over the live view of the road.

During football games, broadcasters use AR to draw lines on the field to illustrate and analyze plays.

Furniture and housewares giant IKEA offers an AR app (called IKEA Place) that lets you see how a piece of furniture will look and fit in your space.

Military fighter pilots see an AR projection of their altitude, speed, and other data on their helmet visor, which means they don't need to waste focus by glancing down to see them.

Neurosurgeons sometimes use an AR projection of a 3-D brain to aid them in surgeries.

At historical sites like Pompeii in Italy, AR can project views of ancient civilizations over today's ruins, bringing the past to life.

Ground crew at Singapore's airport wear AR glasses to see information about cargo containers, speeding up loading times

The Equipment

AR images can be displayed on a multitude of devices including eyeglasses and goggles (remember Google Glass?), headsets, and heads-up displays like helmet visors, but the most common way to use AR these days is on a smartphone, in a variety of apps and games.

Types of AR

There are two broad types of augmented reality, these being marker-based and markerless.

Marker-based AR uses image recognition to identify objects that have been preprogrammed into your AR device or app. Fiducial markers (something placed in the field of view for use as a point of reference) help the AR device determine the position and orientation (called pose) of its camera.

Here's how it works: First, the camera feed is switched to grayscale to speed up processing time. When it detects a marker (often something simple but distinct, like a QR code), the device compares the information from the marker with all the markers in its brain. Once it finds a match, it uses the marker's information to mathematically determine the pose and it then displays the AR image at the exact right place.

For example, let's say you're in a museum like The Franklin Institute. By pointing your phone's camera at a marker on an information plaque, you might be able to instantly see more about the artifact at which you're looking.

Markerless AR is a bit trickier. Not having markers means that nothing has been preprogrammed into your device—it has to recognize items on the fly. The recognition algorithm in your device looks for patterns, colors, or other features that might tip it off. Let's take the popular mobile game Pokemon Go as an example. The incredibly popular game tracks your location via GPS, then uses geographic data and your phone's clock to choose when and where to have Pokemon characters appear. For example, if you're walking by a river in the daytime, you might see a water-loving creature. If you're out at night, chances are you'll spot a fairy or other nocturnal type. The game uses your phone's GPS, accelerometer, and compass to orient itself—and then it uses the camera to overlay an image of a Pikachu or a Jigglypuff within your real-life surroundings.

Research on Augmented Reality (AR) in education has demonstrated that AR applications designed with diverse components boost student motivation in educational settings.

Augmented Reality (AR) is rapidly evolving as is research on AR in education. The increasing interest in using AR in education has led to the creation of AR learning experiences (ARLEs), i.e., learning experiences supported by AR and many ARLEs have been created for almost all levels of education from early childhood education through to higher education. Consequently, the many advantages of and limitations to, challenges and opportunities for this technology in education have been reported in the literature. Two of the most relevant advantages of AR applications in education are: increased learning outcomes and increased motivation. Therefore, if AR applications boost student motivation, the AR applications have been designed with components that positively affect student motivation when students interact with these components during an ARLE. However, most of the research into student motivation in ARLE does not clearly identify which are the components of AR applications that may contribute to increase student motivation and does not explain how and why motivation is increased.

ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE



 $\sum_{n=5}^{n} \left(\frac{n+1}{n} \right) \left\{ x_n \right\} \subset R$ x Zlim n-3 $[x_n] \subset R \underset{n=0}{\geq}$ $\lim_{n \to \infty} \left(I + \frac{\mathcal{R}}{2} \right)$ ∀n ∈ N, to 7=0<=>4n=0 By $\lim A = 1$ >0=> +11n2-2n+ °c⊻ N→R Xn+yn c f(x), f(x))lo kal. max; n≥no 9)<8 <=>]gE[0,1): Ux, xEX n 13 n 0+0+ $\{x_n\}$ $n \ge n_0: (x_n - g) < \varepsilon$ $\begin{cases} v_{n}k & | n_{f4} \cdot n_{f3}n \cdot n_{f3} \\ x_{n}^{2} \cdot \{y_{n}\}_{df}^{2} = \{x_{n} + y_{n}\}; 13 \\ x_{n}^{2} \cdot \{y_{n}\}_{df}^{2} = \{x_{n} \cdot y_{n}\}; 13 \\ x_{n}^{2} \cdot \{y_{n}\}_{df}^{2} = \{x_{n} \cdot y_{n}\}; 13 \\ y_{n}^{2} = \{x_{n} \cdot y_{n}\}; 13 \\ y_{n}^{2$ lim min | $\mathfrak{X}_n: \mathcal{N} \to \mathcal{R}$ $n \leq y_n \leq Z_n$ Fx. 7 F. 7 g

FACULTY SPACE





HARDWARE IMPLEMENTATION OF HYBRID WIRELESS CRYPTO-PROCESSOR USING AES AND SCREAM

Prof. Kavitha 8 Patil

In this contemporary age, communication or data transmission that is executed in a wireless medium plays a significant part in a human's life. For the transmission of secret data in the wire-less medium, cryptography techniques are vital that guards electronic data in a communication network. There are many cryptographically secure algorithms; however, they can't be effortlessly applied in computer applications particularly in hardware.

Here, hardware effective hybrid wireless cryptoprocessor (HWCP) is proposed, which unites '2' block ciphers, i)enhanced advanced encryption standard (AES), ii) Sides-Channel Resistant Authenticated encryption with Masking(SCREAM). This utilizes composite field arithmetic (CFA), on the fly key expansion, and order change to lessen the hardware parts on the encryption algorithms. The proposed HWCP design augments security by increasing the cracking keys' complexity. Furthermore, the proposed HWCP is applied with a parallel sub-pipeline manner, which augments the throughput. The proposed HWCP synthesized with disparate FPGA kin is Virtex-6 (xc6vlx75t-2), Artix-7 (xc7a100t-2), Kintex-7 (xc7k70t-2), along with Virtex-7 (7vx330t-2) in Xilinx tool. The performance comparison of HWCP contrasted with prevailing designs regarding hardware use, power consumption, as well as the maximum operating frequency. Data security is very significant in applications wherein user data are traded, particularly with data transmissionabove network channels. Some fine of these applications are RFID, smart meters, thermostats, together with smart grids [1].'2'vital parameters, that is needed to be regardedwhilst sending information on public networks are the efficiency along with safety.

Numerous securities along with safety approaches are being utilized in network communication. Nevertheless, hackers could attack classified data or information . Authenticated encryption ought to be utilized to attain data confidentiality, authentication, as well as replay protection. The cryptography algorithm acts as the solution to this issue, which is the skill of protecting data by means of transforming along with the technology application. It renders numerous security objectives to make certain the privacy of the on-alteration of data. The Cryptography means converting the protected original message into an indecipherable form amid the data transmission. A range of cryptographic techniques, say, AES, data encryptions standards (DES), triple DES, Blowfish, Rivest-Shamir-Adlemans (RSA), ElGamals and Paillier are utilized for doing encryption along with thing decryption. These have disparate key sizes, disparate block size as well as a disparate number of round functions, and every method has disparate execution time along with throughput. The declared algorithms are functionally safe; however, data security in cryptographic techniques is difficult because of the security problems in the contemporary communication system. So as to shun this, a Hybrid Encryption (HE) technique is commenced. HE merges '2' or more encryption systems. It integrates a combination of asymmetric together with symmetric encryption to profit as of the advantages (such as speed and security) of both encryption form. Every encryption techniques offer prosing addition tocons. HE endeavors to exploit the advantages of both techniques whilst shunning their disadvantages. Hybrid cryptography encompasses major parts:ameliorated security services, attack prevention, as well as misbehavior reports.

The CFA, on-the-fly KE techniques are utilized to lessen the hardware utilization and computational cost. The proposed HWCP design maximizes security via increasing the intricacy of cracking keys. Moreover, the proposed HWCP design is implemented with a parallel sub-pipeline manner that increases the throughput. For performance analysis, the proposed hybrid cryptography system is compared with previous cryptography algorithms. The outcomes illustrate that the performance of proposed HWCP is highly efficient than existing top-notch architectures concerning hardware utilization, power consumption, in addition to the maximum operating frequency. The proposed technique attains throughput up to 139.577Gbps.

ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE

 $= 5 \left(\frac{n+1}{n} \right) \left\{ x_n \right\} \subset R_{y1}$ ${x_n} \subset R \underset{n=0}{\geq}$ $lim(1+\mathbb{R})$ Vn∈N,to $y_n = 0 <=> y_n \neq 0_{B_y}$ $\lim_{n \to \infty} \sqrt{n} = 1$ RX:p n+ cos2n/ <Zn $x_{n}+y_{n} \xrightarrow{c_{y}} \mathcal{N} \rightarrow \mathcal{R} \quad n \ge n_{0} \cdot (x_{n}-g) < \mathcal{E} \quad lo \ kol. \\ max_{j}$ $f(x), f(x)) \leq$ 14n1= <=>]gE[0,1): Ux, xEX_ f(x) $h = 0 + 0 + 0 + 0 + 13^{n}$ 3 + 13 n {xn1 $q) < \varepsilon n \ge n_0: (x_n - q) < \varepsilon$ $\begin{cases} x_{n}^{2} \cdot \{y_{n}\}_{=}^{2} \{x_{n} \cdot y_{n}\}; 13 \\ x_{n}^{2} \cdot \{y_{n}\}_{=}^{2} \{x_{n} + y_{n}\}; 13 \\ x_{n}^{2} \cdot \{y_{n}\}_{=}^{2} \{x_{n} \cdot y_{n}\}; 13 \\ y_{n}^{2} \cdot \{y_{n}\}_{=}^{2} \{x_{n} \cdot y_{n}\}; 13 \end{cases}$ lim min | 1/13" $\mathfrak{A}_{n}: \mathcal{N} \rightarrow \mathcal{R}$ 4n $i \leq y_n \leq Z_n$ ns [n →∞ Xg **ALUMNI SPACE**





HOW HAS TECHNOLOGY CHANGED EDUCATION

Mr. Mohammed Ameenulla, Inurture Solutions

Technology has always been at the forefront of human education. From the days of carving figures on rock walls to today, when most students are equipped with several portable technological devices at any given time, technology continues to push educational capabilities to new levels. In looking at where educational methods and tools have come from to where they are going in the future, technology's importance in the classroom is evident now more than ever.

A History of Classroom Technology: The Primitive Classroom

In the Colonial years, wooden paddles with printed lessons, called Horn-Books, were used to assist students in learning verses. Over 200 years later, in 1870, technology advanced to include the Magic Lantern, a primitive version of a slide projector that projected images printed on glass plates. By the time World War I ended, around 8,000 lantern slides were circulating through the Chicago public school system. By the time the Chalkboard came around in 1890, followed by the pencil in 1900, it was clear that students were hungry for more advanced educational tools.

Radio in the 1920s sparked an entirely new wave of learning; on-air classes began popping up for any student within listening range.

The Skinner Teaching Machine produced a combined system of teaching and testing, providing reinforcement for correct answers so that the student can move on to the next lesson.

The photocopier (1959) and handheld calculator (1972) entered the classrooms next, allowing for mass production of material on the fly and quick mathematical calculations.

The Scantron system of testing, introduced by Michael Sokolski n 1972, allowed educators to grade tests more quickly and efficiently.

The pre-computer years were formative in the choices made for computers in the years following. Immediate response-type systems (video, calculator, Scantron) had become necessary, and quick production of teaching materials, using the photocopier, had become a standard. The U.S. Department of Education reports that high school enrollment was only 10% in 1900, but by 1992 had expanded to 95%. The number of students in college in 1930 was around 1 million, but by 2012 had grown to a record 21.6 million. Teachers needed new methods of instruction and testing, and students were looking for new ways to communicate, study, and learn.

The Entrance and Significance of Personal Computers

Although the first computers were developed in the '30s, every day-use computers were introduced in the '80s. The first portable computer, in 1981, weighed 24 pounds and cost \$1,795. When IBM introduced its first personal computer in 1981, the educational world knew that it was on the verge of greatness. Time magazine named The Computer its "Man of the Year" in 1982, and aptly so: the foundation of immediate learning capabilities had been

laid. Time declared, "it is the end result of a technological revolution that has been in the making for four decades and is now, quite literally, hitting home."

In 1990, The World Wide Web was given life when a British researcher developed Hyper Text Markup Language, or HTML, and when the National Science Foundation (NSF) removed restrictions on the commercial use of the Internet in 1993, the world exploded into a frenzy of newfound research and communication methods.

The first Personal Digital Assistants (PDAs) were released by Apple Computer Inc. in 1993, and with that, computers were a part of every day, if not every moment. By 2009, 97% of classrooms had one or more computers, and 93% of classroom computers had Internet access. For every 5 students, there was one computer. Instructors stated that 40% of students used computers often in their educational methods, in addition to interactive whiteboards and digital cameras. College students nowadays are rarely without some form of computer technology: 83% own a laptop, and over 50% have a Smartphone.

The Future of Technology in the Classroom

It seems like years since MySpace, first introduced in 2003, Facebook (2004) and Twitter (2007) have changed both the communication and business worlds. Instant connectivity has branched out from merely a tool of personal communication, to a platform for educational instruction and outreach. Social media is now being recognized as an accepted form of instruction in some instances, and groups such as Scholastic Teachers provide excellent support and tips for instructors. Many instructors use social media to communicate directly with their students, or to form forum-style groups for students to communicate with each other, and the method seems to be proving valuable in providing oneon-one attention to student's questions and concerns. With the classroom having already evolved into a hotbed of technological advances, what can the future possibly hold that could further educational proficiencies even more?

Biometrics, a technology that recognizes people based on certain physical or behavioral traits, is on the technological horizon. The science will be used to recognize the physical and emotional disposition of students in the classroom, altering course material to tailor to each individual's needs based on biometric signals.

A second up-and-coming technology is Augmented Reality (AR) glasses, rumored to be on Google's release list, and this technology could be a whole new world for education. AR Glasses (or even contact lenses) will layer data on top of what we naturally see, to allow for a real-world learning experience. For example, a student wearing AR Glasses could potentially sit at his desk and have a conversation with Thomas Edison about invention. It was Edison, after all, who said that "Books will soon be obsolete in schools. Scholars will soon be instructed through the eye."

Multi-touch surfaces are commonly used through equipment such as the iPhone, but the technology could become more relevant to education through entirely multi-touch surfaces, such as desks or workstations. This could allow students to collaborate with other students, even those around the world, and videos and other virtual tools could be streamed directly to the surface.

Educators and the Evolution of Technology in the Classroom

With the evolution of technology, educational capabilities are growing and changing every day. The Internet is a vast electronic library of information, and both research and instruction can be achieved through a click of the mouse. As technology advances, an educator's abilities will grow by leaps and bounds, and without the knowledge of these changes and capabilities, an instructor has a good chance of being left behind.

ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE



 $=5\left(\frac{n+1}{n}\right)\left\{x_{n}\right\}CR$ x x $\frac{1}{2}\lim_{n\to\infty}\frac{n^2-x}{2}$ Vn € N, to =0<=> yn =0 By $\lim MA = 1$ 4"+s cos2n1 < yn < Zn $c_y \circ c_x$ $N \to R$ $n \ge n_0 \cdot (x_n - g) < \varepsilon + lo kal.$ $f(x), f(x)) \leq$ $x_n + y_n$ lyn [<=>]gE[0,1): Ux, x'EX f(x)13 + 13 h 0+0+ ${x_n}$ -g)< ≥ n≥no: (xn-g)< ≥ lok. 1 n/4: 1/13 n lim min | $\mathfrak{A}_{n}: \mathcal{N} \rightarrow \mathcal{R}$ $\{x_{n}\} \cdot \{y_{n}\}_{df}^{2} \{x_{n} + y_{n}\}; 13$ $\{x_{n}\} \cdot \{y_{n}\}_{df}^{2} \{x_{n} \cdot y_{n}\}; 13$ Ln $x_n \in y_n \in Z_n$ N->00 X. FROM THE

INDUSTRY EXPERT

THE SASE EVOLUTION

Mr. Anil T C, Hinduja Global Solutions

SASE in particular is addressing remote working use cases as many businesses architect their environments to serve not only the campus and branch office locations, but also very small sites, IoT endpoints and teleworkers, in light of the COVID-19 pandemic. With remote working expected to continue on a more permanent basis for many companies, at least part time, SASE offerings will only increase in popularity heading into next year.

Speaking of SD-WAN, as this market matures; vendors are tying together security and SD-WAN more tightly together and are building out Secure Access Service Edge (SASE) portfolios to take SD-WAN a step further.



What is SASE

Secure Access Service Edge, also known as SASE -- pronounced "SASSY" -- is a cloud architecture model that bundles network and security-as-a-service functions together and delivers them as a single cloud service.

SASE allows organizations to unify their network and security tools in a single management console. This provides a simple security and networking tool that is independent of where employees and resources are located. SASE requires little to no

hardware, using the widespread connectivity of cloud technology to combine SD-WAN with network security functions, including:

- firewall as a service (FaaS)
- software as a service (SaaS)
- secure web gateways
- cloud access security brokers (CASBs)
- zero-trust network access

With the number of remote workers increasing, and organizations increasingly using cloud services to run applications, SASE offers a convenient, agile, cost-effective and scalable SaaS product for networking and security.



CASB

As the market's most advanced, data-centric Cloud Access Security Broker (CASB) solution, CipherCloud CASB+ establishes a critical Zero Trust security and data protection foundation for SASE.

Data Protection

CipherCloud delivers a market-leading, standards-based Data Protection and encryption solution designed for today's data-centric security, privacy and governance requirements.

ZTNA

CipherCloud's Zero Trust Network Access (ZTNA) solution creates software-defined perimeters and enforces adaptive, identity and context-aware policies to address SASE requirements for application access control.

SWP

The CipherCloud Secure Web Proxy (SWP) solution supports SASE strategy by enabling secure, policy-based access to web applications, protecting enterprise systems and user devices from web-borne threats and cyberattacks.

Why SASE?

More of traditional enterprise data-center functions are now hosted outside the enterprise data center than in it – in IaaS providers clouds, in SaaS applications and cloud storage. The needs of IoT and edge computing will only increase this dependence on cloud-based resources, yet WAN security architecture remains to on-premises enterprise data centres.

Remote users commonly connect via VPNs and require firewalls at each location or on individual devices. With SASE, end users and devices can authenticate and gain secure access to all the resources they are authorized to reach protected by security located close to them. Once authenticated, they have direct access to the resources, addressing latency issues.

According to Gartner analyst Nat Smith, SASE is more of a philosophy and a direction than a checklist of features. But, in general, he says, SASE is composed of five main technologies: SD-WAN, firewall as a service (FWaaS), cloud access security broker (CASB), secure web gateway, and zero-trust network access.

COVID, along with other catastrophic events that occurred in 2020, exposed the need for better access to data, applications, and bandwidth when core services are interrupted or inaccessible. By adopting a multicloud strategy, for example, organizations can reduce the impact of specific vendor outages, spread the workload across providers to increase efficiency and performance, and increase network security. The inherent controls associated with SD-WAN/SASE are perfectly aligned with the flexibility of a multi-modal strategy.

Closely related to SD-WAN is Secure Access Service Edge (SASE) architecture, which adds an additional layer of security that is particularly applicable in remote work and edge networking environments.



[°] ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE

n+1) fxn JCR y $\begin{cases} x \\ x \end{cases}$ $\frac{n^2-x}{3}$ $\lim_{n \to \infty} \left\{ x_n \right\} \subset \mathbb{R} \underset{n=0}{\overset{4}{\geq}}$ Vn€ B. , = 0 By to $\lim^n A = 1$ n/4"+1 n=> cos2n/ < yn < Zn $c_y \circ c_x$ $\mathcal{N} \to \mathcal{R}$ $n \ge n_0: (x_n - g) < \varepsilon + lokal.$ $f(x), f(x)) \leq$ $x_n + y_n$ 2yn <=>]qE[0,1): Ux, xEX f(x)13 + 13 h 0+0+0 $\{x_n\}$ $g) < \varepsilon$ $n \ge n_o \cdot (x_n - g) < \varepsilon$ lim min lok. min n.4. $\mathfrak{A}_n: \mathcal{N} \to \mathcal{R}$ n/13 n 4n $\{x_{n}\} \cdot \{y_{n}\}_{df}^{=} \{x_{n} + y_{n}\}; 13$ $\{x_{n}\} \cdot \{y_{n}\}_{df}^{=} \{x_{n}, y_{n}\}; 13$ $x_n \in Y_n \in Z_n$ N->00 X, , Fx.7 ٢., ٦ g

DEPARTMENTAL EVENTS





- 1. National Engineers day celebration was conducted for ISE staff and an online quiz as part of quizotics was conducted for 3rd,5th and 7th sem students on 15/09/2020
- Webinar on "IoT and its Applications" was conducted by Rakshitha K S, I T Manager, Acranton Technologies, Pvt Ltd. for 6th sem students on 05/08/2020
- 3. Webinar on "Management Mantras" was conducted by Mr. Saravana Prabhu Subramanian, Coordinator-Art of Living foundation, Tamil Nadu and Puducherry for Faculty of Atria and other colleges on 10/08/2020
- Webinar on "Amazon web services" was conducted by Mr.Ramesh Karuti, Team Lead, IBM India Pvt Ltd, Benagluru, for 5th and 7th sem students on 11/08/2020
- 5. A talk on Patent Writing was conducted by Mr.Bhaskar Krishna for Faculty of Atria on 03/10/2020
- 6. Webinar on "Networks and Current Industrial Trends" was conducted by Mr.Kallesh, Senior Software Engineer, Greenwave Systems Ashburn, Virginia,USA, for 5th and 7th sem students on 24/10/2020

Report On NATIONAL ENGINEER'S DAY <u>15/09/2020</u>



Sir Mokshagundam Visvesvarya 15-09-1861

Every year, the country celebrates **September 15** as National **Engineer's Day** to appreciate the contributions of Mokshagundam Visvesvaraya. The Bharat Ratna awardee, Visvesvaraya was born on **September 15**, 1861 in a village called Muddenahalli in Karnataka.

Remembering the contributions made by Sir MV, who is an engineer himself, the Department of Information Science and Engineering had organized several events for all the faculty & students of the home department in association with one of the department's technical clubs- **Quizotics**.

Around 16 faculty members, 4 non-teaching members and 300+ students of ISE department participated in this event.

Dr. K V Narayanaswamy, Principal, Atria of Institute of Technology, and Mr. Shaheem, CEO, Atria Institute of Technology, were guests of honor, presided by the head of the ISE department, Dr. Shanthi Mahesh.

The events started by the host Mr. Abhilash, Mrs. Shruthi B and Ms. Syeda Roshni. Welcomed the guest of honors, HoD and the participants (ISE faculty). Dr. K V Narayanswamy, Principal, spoke a few words about the greatness of Sir M Visveswaraya and how he is an inspirational idol to everybody. Later, Mr. Shaheem, CEO, addressed the gathering by first thanking all the faculty

members for giving their best in running the educational institution. Finally, Dr. Shanthi Mahesh, HoD, thanked, Principal and COE for their time and support for the department.

Co-Ordinators: Mr. Abhilash, Mrs. Shruthi B , Ms. Syeda Roshni,

Assistant Professors, Dept of ISE, Atria IT

Further, the hosts, conducted various technical events to the faculty members as follows:

1. Show the video- ask questions from it:

• This event was about watching a video on Sir M Visvesvaraya and then answering the questions in the quiz.

2. Who quoted this quote?:

• Participants were asked to guess the engineer who quoted a particular quote.

3. Guess this engineer?:

• Participants were shown certain pictures of celebrities/ politicians/ business magnets, who are engineers, to identify and to guess who they are!

4. Guess this textbook?:

• Pictures of the textbook were shown without the title and the author name, the participants were supposed to guess the textbook name.

The following are the faculty members as per the groups formed:

1. Group-1:

- a. Dr. Shanthi Mahesh,
- b. Dr. Neha Mangla,
- c. Mr. Omprakash B

2. Group-2:

- a. Ms. Prapulla,
- b. Ms. Ranjitha J,
- c. Ms. Syeda Roshni

3. Group-3:

- a. Mr. Sangamesh Gamma,
- b. Mrs. Vijayalakshmi V,
- c. Ms. Uzma Sulthana

4. Group-4:

a. Mrs. Kavitha S Patil,

- b. Mr. Suhas A Byhratae,
- c. Mr. Veeresh B Hatti

After conducting each event, the final winners were as follows:

First Place	Group-1
Second Place	Group-2
Third Place	Group-4
Fourth Place	Group-3

Afternoon, a quiz competition for 3rd, 5th and 7th semester students was conducted in 2 rounds. The following are the details regarding the same:

Round-No	Sem	No. of students participated	Top 3 Students (Qualified for Round-2)
1 (Quiz on Basic Science)	III	72	 Deepika (11127 points) Saumya Ranjan (10209 points) Kshama K Bhat (9844 points)
	V	66	 Darshana (9765 points) Mallika (9390 points) Nagarjun (9377 points)
	VII	68	 Vaishnavi Sharma (10412 points) Sahana R (9681 points) Neha Prakash (9089 points)
	THE TOP 3 WINNERS		
2 (Quiz on C Programming)	III	3	 VII Sem: Neha Prakash (6282 points) III Sem: Kshama K Bhat (4959 points) III Sem: Deepika (3491 points)
	V	3	
	VII	3	

Moments Captured from the event:





Google Meet Recording Link: <u>3rd Sem: Round-1</u>



Report on One Day Workshop on "INTELLECTUAL PROPERTY RIGHTS SIGNIFICANCE FOR ACADEMIA AND BUSINESS"



Company/Speaker's Brief Profile

Ms. Brinda K. Varma, is an Advocate and Patent Attorney with over 13 years of experience in dealing with IPRs including Patents and trademarks. **Smt. Prabhav-athi Rao**, holds a Masters Degree in Economics from the Central University of Hyderabad. She also holds Certifications in Intellectual Property Rights Founda- tion Course and Patent Cooperation Treaty, from the World Intellectual Property Organisation (WIPO), Geneva, Switzerland. **Dr. Farah Deeba**, is an Author & Independent Consultant. She is an expert

About the talk

1. Highlighting the types of items patented and copyrighted

2. The need for copyright and patent

3. When to go for a patent

4. Difference between Intellectual property and Intellectual Property rights

Outcomes of the talk

- 1. The criteria for registration of IP
- 2. What is meant by novelty
- 3. Copyrights and research ethics elaborating on Computer Software related Inventions
- 4. Difference between copyright and plagiarism
- 5. What is citation and when writing a paper how and where to provide citations

TIPS FROM THE DEPARTMENT:

A note on cracking campus placements

Most of the placements processes that take place on-campus follow the following steps:

- Aptitude Test
- Technical Interview
- HR Interview

Given below are some of ps that can help you crack these interviews and get placed through campus placements:

1. Most of the aptitude tests consist of basic school level maths, logical and verbal questions. You can practice these questions through various online websites such as indiabix.com or from books such as the RS Agarwal book.

2. Prepare well in advance for the technical interview. The panel might ask you any questions from any of the subjects that you have studied since first year. Also make sure you know the syllabus of the subjects that you have in your current semester. Preparing for interviews/placements is no excuse to neglect your college studies.

3. During the interview, be calm. The company is here because they want to hire you as much as you want to be hired. When asked a question it's alright to pause and take a moment to collect your ideas.

4. In the HR interview, the panel will ask you basic questions about your strengths and weaknesses, your background, why they should hire you etc. You should prepare such questions in advance. It's not a good sign if the panel asks about your strengths and you sit and wonder what those are while in front of them. The candidate should have evaluated themselves before anyone else can.







THE EDITORIAL BOARD:

Faculties

- Prof. Kavitha Vasanth
- Prof. Omprakash B
- Prof. Abhilash G
- Prof. Vidhya

Students

- Vachan
- Sahana V
- *Sujatha*
- Dhanush K Vijay





ACKNOWLEDGEMENT:

AT THE END, WE WOULD LIKE TO EXTEND OUR SINCERE GRATITUDE TO OUR MANAGEMENT FOR THEIR CONSTANT SUPPORT. ALSO WE WOULD LIKE TO THANK OUR PRINCIPAL, DR. T. N. SREENIVASA, FOR HIS SUPPORT & ENCOURAGEMENT.

WE WOULD ALSO LIKE TO THANK OUR HOD DR. SHANTHI MAHESH FOR THE INNOVATIVE IDEAS AND ADDITIONS MADE TO OUR MAGAZINE, AND FACULTY IN CHARGE, KAVITHA VASANTH FOR SHAPING THE 'IGNITE'-2020-'21.

ALSO A HEARTFELT THANK YOU TO THE FACULTY MEMBERS, STUDENTS AND ALL STAKEHOLDERS FOR THEIR VALUABLE INPUTS.



`ATRIA INSTITUTE OF TECHNOLOGY DEPT.OF ISE

 $=5\left(\frac{n+1}{n}\right)\left\{x_{n}\right\}CR_{y}$ $\left\{x_{n}\right\} \subset R \underset{n=0}{\geq}$ flim nº $lim(1, \frac{\pi}{2})$ 7=0<=>4,=0B 4"+1 lim"/A nen -2n $\sum_{N \to R}^{c_x} n \ge n_0 \cdot (x_n - g) < \varepsilon$ X_n+yn^{cy} f(x), f(x)lokal. max; $f(x) \leq 3q \in [0,1]: \forall x, x \in \mathcal{X}$ $\begin{cases} x_n \\ y \\ y_n \end{cases} = \begin{cases} n \\ y_n \\ y_$ $g) < \varepsilon$ $n \ge n_0 \cdot (x_n - g) < \varepsilon$ lok. min lim min "/ 13' $\mathfrak{A}_n: \mathcal{N} \to \mathcal{R}$ n4: 1/13n ${x_n}^{-1} \cdot {y_n}^{=} {x_n + y_n}^{; 13}$ $\leq \forall_n \leq Z_n$ n->00 ${x_n}, {y_n}_{df}, {x_n}, {y_n};$ X - 111 Fx 7 Fur 9

IGNITE 2020-'21

Technical magazine

