REVISTA

MAGAZINE MAY 2018

DEPARTMENT OF INFORMATION TECHNOLOGY

HINDUSTHAN
College of Engineering and Technology

Shri.T.S.R.Khannaiyann

Chairman

Hindusthan Educational and Charitable Trust

Coimbatore.

MESSAGE

REVISTA'18 is an innovative piece, which showcases the hard work put in by the editorial board. I appreciate the efforts of the editorial team who have done an excellent job in compiling REVISTA'18 activities over the year and disseminate them through this magazine. I wish them all success for their future endeavor.

THIRU T.S.R.KHANNAIYANN

(CHAIRMAN)

Smt.Sarasuwathi Khannaiyann

Secretary

Hindusthan Educational and Charitable Trust

Coimbatore - 641032

MESSAGE

"Education is simply the soul of the society as it's passes from one generation to another"

-G.K.Chesterson

Engineers play the most vital and important role in nation building. They create new inventions using best engineered technologies to make human life more comfortable, secure and productive. We have excellent potential to grow in diversified areas and excel in Engineering and Management fields. We need enormous number of engineers and managers to write next story of success.

At the outset I send my greetings to the Editorial Board of REVISTA' 18, for working on a Magazine best in all aspects. I believe this magazine will proc ide us the benchmark for continued improvement in overall development of the College.

MRS.SARASUWATHI KHANNAIYANN

(SECRETARY)

Mrs. Priya Sathish Prabhu

Joint Secretary

Hindusthan Educational and Charitable Trust

Coimbatore – 641032

MESSAGE

"Education is the most powerful weapon which you can use to change the world"

-Nelson Mandela.

REVISTA'18 is an excellent piece of publication that demonstrates the literary, art and imaginative skills of our students. It is always inspiring to read through the pages of the magazine and see such talented academics pushing the boundaries of discovery. Congratulations to the entire team!

MRS.PRIYA SATHISH PRABHU

(JOINT SECRETARY)

Dr.T.Kannadasan

Principal

Hindussthan college of Engineering and Technology

Coimbatore – 641032

MESSAGE

It gives me immense pleasure to pen a few words as prologue to our in-house magazine 'REVISTA 18' exclusively meant for churning out the latent writing talent which bears immense potentiality of sharpening your communication skill as part of your overall personality development. I congratulate all the contributors and the editorial board for bringing out such a beautiful magazine.

I am confident that 'REVISTA 18' would turn out to be a real trend-setter in surfacing and kindling in young ITians.

IT is Imminent, IT is Real

DR.T.KANNADASAN

(PRINCIPAL)

Dr.S. SARAVANASUNDARAM

Professor & Head

Department of Information Technology

Hindusthan College of Engineering and Technology

Coimbatore – 641032

MESSAGE

I am very much delighted and happy that our department is releasing the 'REVISTA 18'. It ignites fresh enthusiasm of the creative skills over the students of our department and fulfills their expectations. I would like to thank everyone for their active support to release this magazine. I extend my warm greeting to all the participants and organizers of the 'REVISTA 18' and your support will encourage us to release the issue every year.

Wishing you all the best…!

DR.S. SARAVANASUNDARAM

PROFESSOR & HEAD

Mrs. P. Revathi

Assistant Professor

Department of Information Technology

Hindusthan College of Engineering and Technology

Coimbatore – 641032

MESSAGE

It gives me immense pleasure that our department is releasing the REVISTA'18. It grabs out the creative skills over the students of our department. Guided by our pillars of support, our faculty members, we got the magazine done with all its formalities and informalities. I have to thank all our student editors here for their continuous support throughout this magazine's creation. It's been a journey, a journey that taught us many lessons and provided us with quite a bit of entertainment as well.

MS.P.REVATHI

AP/IT

VISION OF THE DEPARTMENT

- To develop IT Professionals of the best caliber with Entrepreneurship Zeal.

MISSION OF DEPARTMENT

- To establish a best Learning Environment that helps the Students to face the Challenges of IT field.
- To enable the Students to develop Skills for solving Technical Problems and also endorse Collaborative and Multidisciplinary activities.
- To induce Entrepreneurial mindset amongst Students and develop the necessary Skills to meet the Entrepreneurial needs of the Society.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Graduates of the program will be proficient in identifying, formulating and solving complex problems by applying their knowledge of mathematics, science and information technology principles.

PEO2: Graduates of the program will be capable of analyzing, designing, implementing and managing software projects through continuous learning and use modern tools to meet real world constraints.

PEO3: Graduates of the program exhibits professionalism with ethical attitude, excellent communication and term spirit to Satisfy society needs.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Able to design and develop software solutions by employing appropriate problem solving strategies, including Logically thinking, Create a user interface, Write code to connect a front end user interface with a backend database using a contemporary object-oriented language.

PSO2: Ability to design and develop mobile applications and Web based applications with testing skills which consequently leads to employability and entrepreneurship skills.

TECHNICAL PROGRAMMES

1. **Seminar on "Machine Learning Using R Programming"** sponsored by HiCET was conducted on 23rd September 2017. It was inaugurated by Dr Saravana Sundaram - Head of the Department of Information Technology. The sessions were handled by Dr.D.Chandrakala Professor, Kumaraguru College of Technology, Coimbatore and Mr.D.G.Sooryanarayanan, Mr.S.Venkatapathy, CEO Edu Seva Coimbatore. The seminar focused on R programming language and its use in software environment for statistical computing and graphics. It is widely used among statisticians and data miners for developing statistical software and data analysis.

2. **Two days Faculty Connect Programme on "Problem Solving and Programming Using Python"** sponsored by IE(INDIA) & HiCET was conducted on 16th November 2017. It wasinaugurated by Dr Saravana Sundaram - Head of the Department of Information Technology. The sessions were handled by Mr.Praveen Balakrishnan, Senior Software Engineer, Aftertutor Medias Pvt Ltd, Chennai. The motive of this FDP is to explore machine Learning algorithms and importance of Python Programming and its Problem Solving Techniques.

3. **Seminar on "Impact of IOT in Health Care"** sponsored by SERB was conducted on 23rd & 24th April 2018. It was inaugurated by Dr Saravana Sundaram - Head of the Department of Information Technology. The sessions were handled by Mr.Praveen Kumar Hands On Lab Dr.S.Kannimuthui Associate Professor, KCE, Coimbatore and Dr.V.Anantha Narayanan, TAG Lead-Predictive Analytics and IOT Lab,coimbatore. The seminar focused on IOT in various sectors and most importantly in Medical Field.

4. **One day Workshop on "Mobile Application Development"** sponsored by HiCET was conducted on 18th Feb 2018. It was inaugurated by Dr Saravana Sundaram - Head of the Department of Information Technology. The sessions were handled by Mr.R.Aravindhan, Senior Android Developer, Care Soft Global Pvt Ltd, Pollachi. The motive of this is to explore its opportunities in Android Development.

5. **Three Days Workshop on "Aptitude Shortcut Methods"** sponsored by IE(INDIA) was conducted on 5TH- 8th Jan 2018. It was inaugurated by Dr Saravana Sundaram - Head of the Department of Information Technology. The sessions were handled by Mr.M.Thanikachalam, Director cum Placement Trainer, Awake IAS & IPS Coaching Centre, Coimbatore.

CURRENT AFFAIRS

Trend No. 1: AI & Advanced Machine Learning

AI and machine learning (ML), which include technologies such as deep learning, neural networks and natural-language processing, can also encompass more advanced systems that understand, learn, predict, adapt and potentially operate autonomously. Systems can learn and change future behavior, leading to the creation of more intelligent devices and programs. The combination of extensive parallel processing power, advanced algorithms and massive data sets to feed the algorithms has unleashed this new era.

Trend No. 2: Intelligent Apps

Intelligent apps, which include technologies like virtual personal assistants (VPAs), have the potential to transform the workplace by making everyday tasks easier (prioritizing emails) and its users more effective (highlighting important content and interactions). However, intelligent apps are not limited to new digital assistants – every existing software category from security tooling to enterprise applications such as marketing or ERP will be infused with AI enabled capabilities. Using AI, technology providers will focus on three areas — advanced analytics, AI-powered and increasingly autonomous business processes and AI-powered immersive, conversational and continuous interfaces. By 2018, Gartner expects most of the world's largest 200 companies to exploit intelligent apps and utilize the full toolkit of big data and analytics tools to refine their offers and improve customer experience.

Trend No. 3: Intelligent Things

New intelligent things generally fall into three categories: robots, drones and autonomous vehicles. Each of these areas will evolve to impact a larger segment of the market and support a new phase of digital business but these represent only one facet of intelligent things. Existing things including IoT devices will become intelligent things delivering the power of AI enabled systems everywhere including the home, office, factory floor, and medical facility. As intelligent things evolve and become more popular, they will shift from a stand-alone to a collaborative model in which intelligent things communicate with one another and act in concert to accomplish tasks. However, nontechnical issues such as liability and privacy, along with the complexity of creating highly specialized assistants, will slow embedded intelligence in some scenarios.

Trend No. 4: Virtual and augmented reality

Virtual reality (VR) and augmented reality (AR) transform the way individuals interact with each other and with software systems creating an immersive environment. For example, VR can be used for training scenarios and remote experiences. AR, which enables a blending of the real and virtual worlds, means businesses can overlay graphics onto real-world objects, such as hidden wires on the image of a wall. Immersive experiences with AR and VR are reaching tipping points in terms of price and capability but will not replace other interface models. Over time AR and VR expand beyond visual immersion to include all human senses. Enterprises should look for targeted applications of VR and AR through 2020.

Trend No. 5: Digital twin

Within three to five years, billions of things will be represented by digital twins, a dynamic software model of a physical thing or system. Using physics data on how the components of a thing operate and respond to the environment as well as data provided by sensors in the physical world, a digital twin can be used to analyze and simulate real world conditions, responds to changes, improve operations and add value. Digital twins function as proxies for the combination of skilled individuals (e.g., technicians) and traditional monitoring devices and controls (e.g., pressure gauges). Their proliferation will require a cultural change, as those who understand the maintenance of real-world things collaborate with data scientists and IT professionals. Digital twins of physical assets combined with digital representations of facilities and environments as well as people, businesses and processes will enable an increasingly detailed digital representation of the real world for simulation, analysis and control.

Trend No. 6: Blockchain

Blockchain is a type of distributed ledger in which value exchange transactions (in bitcoin or other token) are sequentially grouped into blocks. Blockchain and distributed-ledger concepts are gaining traction because they hold the promise of transforming industry operating models in industries such as music distribution, identify verification and title registry. They promise a model to add trust to untrusted environments and reduce business friction by providing transparent access to the information in the chain. While there is a great deal of interest the majority of blockchain initiatives are in alpha or beta phases and significant technology challenges exist.

Trend No. 7: Conversational systems

Conversational systems can range from simple informal, bidirectional text or voice conversations such as an answer to "What time is it?" to more complex interactions such as collecting oral testimony from crime witnesses to generate a sketch of a suspect. Conversational systems shift from a model where people adapt to computers to one where the computer "hears" and adapts to a person's desired outcome. Conversational systems do not use text/voice as the exclusive interface but enable people and machines to use multiple modalities.

Trend No. 8: Mesh app and service architecture

The intelligent digital mesh will require changes to the architecture, technology and tools used to develop solutions. The mesh app and service architecture (MASA) is a multichannel solution architecture that leverages cloud and serverless computing, containers and microservices as well as APIs and events to deliver modular, flexible and dynamic solutions. Solutions ultimately support multiple users in multiple roles using multiple devices and communicating over multiple networks. However, MASA is a long term architectural shift that requires significant changes to development tooling and best practices.

Trend No. 9: Digital technology platforms

Digital technology platforms are the building blocks for a digital business and are necessary to break into digital. Every organization will have some mix of five digital technology platforms: Information systems, customer experience, analytics and intelligence, the Internet of Things and business ecosystems. In particular new platforms and services for IoT, AI and conversational systems will be a key focus through 2020. Companies should identify how industry platforms will evolve and plan ways to evolve their platforms to meet the challenges of digital business.

Trend No. 10: Adaptive security architecture

The evolution of the intelligent digital mesh and digital technology platforms and application architectures means that security has to become fluid and adaptive. Security in the IoT environment is particularly challenging. Security teams need to work with application, solution and enterprise architects to consider security early in the design of applications or IoT solutions. Multilayered security and use of user and entity behavior analytics will become a requirement for virtually every enterprise.

POEM

Less afraid

Light that lies deep inside of me
Come forth in all thy majesty
Show me thy gaze
Teach me thy ways
That I a better person may be

Darkness that lies deep inside of me
Come forth in all thy mystery
Show me thy gaze
Teach me thy ways
That I a better person may be

Love that lies deep inside of me
Come forth in all thy unity
Let me be thy gaze
Let me teach thy ways
That I a better person may be

- Prince William

LATEST TOOLS

A Simple Expense Tracking System

It can be hard to track business expenses like lunches or cabs, especially if multiple employees have to run errands or travel on the company's dime.
Technology can help keep these items organized and make them more easily trackable than collecting printed receipts and storing them in a folder.

Expense report software - like Concur, Expensify, and Expenditure - makes it easy for you and your employees to scan receipts or add cash expenses from your phones.
From one dashboard, your finance team can oversee and manage costs and analyze billing patterns, helping you save time and money.

A Collaborative Project Management App

"Productivity" is every business owner's favorite word around the office. And the more you can rely on technology to encourage organization and efficiency, the better chance your team has to achieve more in less time and with less stress.
There are hundreds of project management apps, but capsule and Trello are two of the most popular among businesses, thanks to their affordable pricing, user-friendly dashboards, and flexible features.
Both technologies allow teams to create projects, assign tasks, collaborate on different plan phases, and easily track progress from the first to the last steps. Whether you manage multiple direct reports or want to know what various departments are currently working on, these project management tools can give you a clear and customizable snapshot.

A Secure Cloud Storage Solution

There's a reason 93% of small and medium businesses in the United States back up some portion of their data to the Cloud: it's a reliable, secure, and accessible solution.
Should your hard drive crash without some sort of Cloud backup, you could permanently lose data or files. Cloud storage also makes it easier for your team to share large files, collaborate on projects, and access information at all times from any location and any computer.

There are numerous Cloud platforms available. If you already use Google for your business email, Google Drive syncs nicely. A Drive is another great option for businesses, as it features enhanced security and file history recovery.
And for those interested in more comprehensive Cloud solutions, Frontier Business has flexible managed IT and hosting offerings, including Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Business Continuity as a Service (BCaaS).

PUZZLES

1.

**Insert
the missing number.**

$$= 9$$

$$= 1$$

$$= \boxed{?}$$

Answer : 4

2.

**What can you see
once in a minute,
twice in a moment,
and never
in a thousand years?**

Answer : The Letter "M"
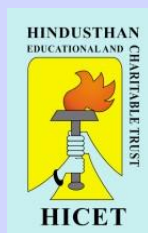
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