

# *IT BITZ*

*September 2020*

**DEPARTMENT OF INFORMATION TECHNOLOGY**

*Volume 5, Issue 1*

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*SEPTEMBER 2020*

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**(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)**

**S.P.G.Chidambara Nadar - C.Nagammal Campus**

**S.P.G.C.Nagar, K.Vellakulam - 625 701, (Near Virudhunagar), Madurai District.**

### **VISION OF THE INSTITUTION**

To make this Institution the unique of its kind in the field of Research and Development activities in this part of world.

### **MISSION OF THE INSTITUTION**

To impart highly innovative and technical knowledge to the urban and unreachable rural student folks through "Total Quality Education".

### **QUALITY POLICY**

Committed to impart Quality Technical Education imbided with proficiency, human values and continual improvement.

## **DEPARTMENT OF INFORMATION TECHNOLOGY**

### **VISION OF THE DEPARTMENT**

To make the department of Information Technology the unique of its kind in the field of Research and Development activities in this part of world.

### **MISSION OF THE DEPARTMENT**

To impart highly innovative and technical knowledge in the field of Information Technology to the urban and unreachable rural student folks through Total Quality Education.

### **PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)**

**PEO 1:** Graduates of the programme will exhibit expertise in technical knowledge by applying distinctive skills in various fields of Information Technology

**PEO 2:** Graduates will become pioneers in the field of IT by working collaboratively and providing solutions to meet societal needs through persistent learning

**PEO 3:** Graduates will be able to adopt innovative practices and contribute towards research and technological development in the field of IT through Total Quality Education

### **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

**Engineering Graduates will be able to:**

1. **Design an algorithm, process or component** to address its real time needs in the field of Information Technology through analytical skills.
2. **Ability to adopt the evolutionary changes** in computing and pursue a career in IT and IT enabled industries.

## **ABOUT THE DEPARTMENT**

Information Technology department was established in the year 2001 and has 9 well qualified faculty members expertise in various fields of Information Technology and can exert a dedicated work to produce high caliber technocrats. Of them, three have completed their doctoral degree, five of them are pursuing their doctoral degrees and all others have PG degrees. Department offers various value added courses on IBM Cloud Computing, IBM Cyber Security and Full Stack Developer to impart the knowledge in students to satisfy the industrial needs.

## **HEAD OF THE DEPARTMENT**

Dr. P. Subathra Heads the Department of Information Technology since August 2015. She received her Doctorate in Philosophy in the field of Information and Communication Engineering from Anna University, Chennai. She completed her PG in Computer Science and Engineering & UG in Electrical and Electronics Engineering from Madurai Kamaraj University, Madurai. Her area of interest includes Networks and Network Security. Under her guidance, one scholar has completed Doctoral Degree. Also she is guiding one research scholar under Anna University, Chennai. She has published around 10 international journals and conferences for her credit. She has given guest lecture in various institutions on Network Security, Soft Computing and IoT.

## KNOWLEDGE ENRICHMENT – DEEP LEARNING



Deep learning is a machine learning technique that teaches computers to do what comes naturally to humans: learn by example. Deep learning is a key technology behind driverless cars, enabling them to recognize a stop sign, or to distinguish a pedestrian from a lamppost. It is the key to voice control in consumer devices like phones, tablets, TVs, and hands-free speakers. Deep learning is getting lots of attention lately and for good reason. It's achieving results that were not possible before.

In deep learning, a computer model learns to perform classification tasks directly from images, text, or sound. Deep learning models can achieve state-of-the-art accuracy, sometimes exceeding human-level performance. Models are trained by using a large set of labeled data and neural network architectures that contain many layers.

How does deep learning attain such impressive results?

Deep learning achieves recognition accuracy at higher levels than ever before. This helps consumer electronics meet user expectations, and it is crucial for safety-critical applications like driverless cars. Recent advances in deep learning have improved to the point where deep learning outperforms humans in some tasks like classifying objects in images.

While deep learning was first theorized in the 1980s, there are two main reasons it has only recently become useful:

1. Deep learning requires large amounts of **labeled data**. For example, driverless car development requires millions of images and thousands of hours of video.
2. Deep learning requires substantial **computing power**. High-performance GPUs have a parallel architecture that is efficient for deep learning. When combined with clusters or cloud computing, this enables development teams to reduce training time for a deep learning network from weeks to hours or less.

### ***Introducing Deep Learning with MATLAB***

#### Examples of Deep Learning at Work

Deep learning applications are used in industries from automated driving to medical devices.

**Automated Driving:** Automotive researchers are using deep learning to automatically detect objects such as stop signs and traffic lights. In addition, deep learning is used to detect pedestrians, which helps decrease accidents.

**Aerospace and Defense:** Deep learning is used to identify objects from satellites that locate areas of interest, and identify safe or unsafe zones for troops.

**Medical Research:** Cancer researchers are using deep learning to automatically detect cancer cells. Teams at UCLA built an advanced microscope that yields a high-dimensional data set used to train a deep learning application to accurately identify cancer cells.



Industrial Automation: Deep learning is helping to improve worker safety around heavy machinery by automatically detecting when people or objects are within an unsafe distance of machines.

Electronics: Deep learning is being used in automated hearing and speech translation. For example, home assistance devices that respond to your voice and know your preferences are powered by deep learning applications.

**P. Pandia Raja**

**19UITE026**

**II - IT**

## FACULTY ACHEIVEMENT

### FDP/Workshop/STTP/Certification Programmes attended

S.No	FDP/ Workshop/STTP/ Summer Schools etc. .	Name of the faculty	Name of the Programme	Date	Organizing Institution	Participated/ Presented
1	ATAL Online FDP	S.Athilakshmi	Data Sciences	21/09/2020 to 25/09/2020	NIT Raipur	Participated
2	FDP	R. Arthy	Online FDP on Python Programming	07.09.2020 to 18.09.2020	Malaviya National Institute of Technology, Jaipur	Participated
3	ATAL FDP	KAVIYA P	Online FDP on “Emotional Intelligence”	13.09.2020 to 17.09.2020	IIIT, Allahabad	Participated
4	ATAL FDP	M.Kanimozhi	Online FDP on “Emotional Intelligence”	13.09.2020 to 17.09.2020	IIIT, Allahabad	Participated
5	FDP	D.Kayathri Devi	Online FDP on “Artificial Intelligence using Python”	14.09.2020 - 19.09.2020	St.Mary’s Integr ated Campus, Hyderabad and Brinovision Solutions	Participated
6	TEQUIP Sponsored FDP	D.Kayathri Devi	Online FDP on “Advanced Research Trends in Artificial Intelligence, Pattern Recognition and Image Processing”	25.09.2020 - 30.09.2020	BTK Institute of Technology , Dwahrahath	Participated

7	ATAL FDP	D.Kayathri Devi	Learning Management System	21.09.2020 - 25.09.2020	ATAL at NIIRT	Participated
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**Faculty as Resource persons / Experts in Guest Lecture/FDP/Workshop/Conference/Symposia**

S. No	Name of the Faculty	Conference / Symposia/Refresher/FDP/ Workshop Name	Int. / Nat. /State level	Place
1	Dr. P. Subathra	05 days Online Faculty Development Programme (Online FDP) on "Cyber Security", from 21 – 25 September 2020 sponsored by AICTE Training And Learning (ATAL) Academy	National	Online Mode (Organized by Department of Computer Applications, School of Information Technology, Madurai Kamaraj University)

**Events Organized:**

S. No	Date	Type of Event	Duration [Day]	Title Number of Participants	Resource Person	Coordinator(s)
1	12.09.2020	Alumni Guest Lecture	2 Hours 5 pm to 7 pm Saturday	Career Guidance 43	Mr. Aditiya Harsh Rajendiran B.Tech., 2008 - 2012 Technical Analyst, Lennox India Technology Center, Chennai	Mr. D. Vendhan
2	27.09.2020	Alumni Guest Lecture	2 Hours 5 pm to 7 pm Sunday	Software Development using AGILE 23	Mr. S. Sivanesh Kumar B.Tech., MBA., 2002 - 2006 Agile Coach / Scrum Master, WIPRO, Bangalore	Mr. D. Vendhan

## PLACEMENT CORNER

S.No	Roll No	Name	Placed Company	Package(LPA)
1.	16UITE032	RAMOLA G K	Chain Sys India Pvt Ltd	2,50,000
2.	16UITE008	RUPINI A	Buddi Health Technologies	3,00,000
3.	16UITE016	SHARMI SREE P	Tata Consultancy Services	3,30,000
4.	16UITE024	SRIMATHI M	Infosys	3,60,000
5.	16UITE010	SRIVIDHYA G	Sri Mookambika Infosolutions Pvt Ltd	1,80,000
6.	16UITE028	SUGANYA S	Auction Software	2,40,000
7.	16UITE042	SWETHA R	HCL Technologies	3,50,000

## COMPANY PROFILE

HCL Technologies is a next-generation global technology company that helps enterprises reimagine their businesses for the digital age. Our technology products and services are built on four decades of innovation, with a world-renowned management philosophy, a strong culture of invention and risk-taking, and a relentless focus on customer relationships.

HCL also takes pride in its many diversity, social responsibility, sustainability, and education initiatives. Through its worldwide network of R&D facilities and co-innovation labs, global delivery capabilities, and over 159,000+ ‘Ideapreneurs’ across 50 countries, HCL delivers holistic services across industry verticals to leading enterprises, including 250 of the Fortune 500 and 650 of the Global 2000.

Enterprises across industries stand at an inflection point today. In order to thrive in the digital age, technologies such as [analytics](#), [cloud](#), [IoT](#), and [automation](#) occupy center stage. In order to offer enterprises the maximum benefit of these technologies to further their business objectives, HCL offers an integrated portfolio of products and services through three business units. These are **IT and Business Services (ITBS)**, **Engineering and R&D Services (ERS)**, and **Products and Platforms (P&P)**.

ITBS enables global enterprises to transform their businesses via Digital Foundation, our modernized infrastructure stack built around hybrid cloud, software-defined networks, the digital workplace, and other elements; Digital Business, a combination of our application services and consulting capabilities; and Digital Operations, a three-pronged setup for modernized and efficient operations at enterprise level.

ERS offers engineering services and solutions in all aspects of product development and platform engineering. Under P&P, HCL provides modernized software products to global clients for their technological and industry-specific requirements.

Our holistic Mode 1-2-3 strategy forms the backbone of these three business units to help enterprises navigate the digital age with ease. It is the core aspect of our ‘Digital Enterprise 4.0’ focus – aimed at offering holistic services to our clients to meet the technology needs of their present while readying them to be future-ready.

The company's DNA of grassroots innovation, its ingrained culture of co-innovation, and its tradition of going far beyond what is expected, to create customer value, clearly differentiates it and gives it a distinct advantage in creating value for businesses in the digital and connected world.

- **SWETHA R**  
**16UITE042**

### **THINK!!!**

The prevention of accidents makes it necessary not only that safety devices be used to guard exposed machinery but also that mechanics be instructed in safety rules which they must follow for their own protection, and that lighting in the plant be adequate.

The passage best supports the statement that industrial accidents -

- A. are always avoidable;
- B. may be due to ignorance.
- C. cannot be entirely overcome.
- D. can be eliminated with the help of safety rules.
- E. usually result from inadequate machinery.

**OPTION:**

**ANSWER:D**



## **EDITORIAL TEAM**

### **CHIEF EDITOR**

Dr. P.Subathra, HoD/IT

### **CO-EDITORS**

Mrs. E.Vakaimalar, AP/IT

Mrs.D.Kayathri Devi, AP/IT

### **MAGAZINE IN-CHARGE**

Mrs. V.Deepa Priya, AP/IT

### **STUDENT MEMBERS**

Mr.C.Navin, IV IT

Ms.L.Latha, IV IT

Mr.M.Abul Faisal, III IT

Ms.S.Nandhini, III IT

Mr. R. Venkatesh Prabhu II IT

Ms. S. Leena Velni II IT