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# GEETHANJALI

INSTITUTE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## Techies Chronicle

-Driven to Discover

### 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. In a word, accuracy. 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.
3. Deep learning applications are used in industries from automated driving
4. **Automated Driving:** Automotive researchers are using deep learning to as stop signs and traffic lights. In addition, deep learning is used to detect pedestrians, which helps decrease accidents.
5. **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.
6. **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.
7. **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.



### Editorial Board

Editors: P. Radhika, Asst. Professor, Y.V. Ramesh, Asst. Professor

Student Editors: Ch. Sujitha (III CSE), D. Kavya (III CSE), O. Sujay (II CSE), MD. Shahbaz (II CSE)

## **Faculty Contributions/ Achievements:**

- Mrs. V. Bharathi attended NPTEL course on Programming in Java a 12 week training program for 12 weeks from Jan- April 2019
- Mrs. V. Bharathi attended NPTEL course on Introduction to Industry 4.0 and Industrial IOT a 12 week training program for 12 weeks from Jan- April 2019
- Dr. V. Sireesha organised “A one Day workshop on Python” through ICT mode by IIT Bombay on 25<sup>th</sup> May 2019.
- All the CSE faculty attended “A one Day workshop on Python” through ICT mode by IIT Bombay on 25<sup>th</sup> May 2019.
- Mrs. V. Gayatri attended a workshop Problem Solving and programming in Python in JNTU Anantapur, Dept. of CSE, in association with Directorate of faculty development and IQAC on 27<sup>th</sup> to 1<sup>st</sup> Jun 2019.
- Mrs. V. Bharathi attended NPTEL course on Introduction to Industry 4.0 and Industrial IOT a 12 week training program for 12 weeks from Jan- April 2019
- Ms. P. Radhika Successfully Completed And Certified in MapReduce And Yarn (Bd0115en, Provided By Big Data University) An Online Course On Cognitive Class, May 13, 2019.
- Ms. P. Radhika Successfully Completed And Certified In Moving Data Into Hadoop (Bd0131en, Provided By Big Data University) An Online Course On Cognitive Class, May 11, 2019.
- Ms. P. Radhika Successfully Completed And Certified In Accessing Hadoop Data Using Hive (Bd0141en, Provided By Big Data University) An Online Course On Cognitive Class, May 11, 2019.
- Dr. V. Sireesha published a paper on Sentimental Analysis in Twitter for Predicting Cyber Attacks in International Journal of Research ISBN/ISSN: 2236-6124.
- Dr. V. Sireesha published a paper on Hyperspectral Image Denoising Based On Self-Similarity and Bm3d in Journal of advance research in dynamical and control systems ISBN/ISSN: 1943-023X (MAY)
- Dr. M. Mathan Kumar published a paper on A Survey on the Security Features of Wireless Ad-Hoc Networks in International Journal of Pure and Applied Mathematics ISBN/ISSN: 1314-3395.(MAY)

- Dr. M. Mathan Kumar published a paper on Characterizing and predicting early Reviews for E-Commerce Websites Using Aggregate Analysis in International Journal of Research ISBN/ISSN: 2236-6124.
- Ms. P. Radhika published a paper on Generating Storyboard For Social Events Through Data By Clicking, Published In IJR, ISSN No:2236-6124, Volume Viii, Issue V, May/2019, Page Numbers – 42-54.
- Ms. P. Radhika published a paper on An Approach For Opinion Mining By Acumening The Data Through Exerting The Insights, Published In JASC: ISSN NO: 1076-5131, Volume Vi, Issue Iv, April/2019, Page Number - 3752 – 3764.
- Dr. S. Sumalatha, Published a paper on “A Map Reduce solution for incremental mining of sequential patterns from big data” in Expert Systems with Applications, an Elseveir Journal, May 2019, pp. 109-125, ISSN: 0957-4714.

## **Student Achievements**

### **✓ Student Publications in International Journals**

- S.V. Rupa Rani, guide Dr.Y.Jahnavi ,”IoT based smart bin using Raspberry Pi ” International Journal of Research, Volume 8, issue 4, pp: 2666-2675, April 2019.
- V.K.RashidaFarheen, guide Dr. Dr.M.Mathankumar “IoT Based Interactive Notice Board” International Journal of Scientific Research and Review, Volume 8, Issue 6, pp: 952-962, 2019.
- P.Yamini, guide Mrs V.Bharathi ” IoT Based Vehicle Tracking And Accident Detection System” International Journal of Scientific Research and Review, Volume 8, issue 6, pp: 914-918, 2019.
- A.Sowmya, guide MrsN.Harshitha,” Ranking And Predicting The Strength Of A User In Social Networking Sites” International Journal of Research, Volume 8, Issue 4, pp: 2179-2184, April 2019.
- Sk.Sumaya, guides Dr.Y.Jahnavi, Dr.M.Mathan Kumar” Protecting Cloud Data under Key Orientation Using CK-Bastion ” International Journal of Research, Volume 8, Issue 4, pp: 2801-2807, April 2019.
- M.Sushma, guide Mrs V.Gayatri ” Efficient Method for Viewed Web pages Retrieval by using Prior and Posterior Prediction Techniques” Efficient Method for Viewed Web pages Retrieval by using Prior and Posterior Prediction Techniques.



- S.Chandana,guide Mrs.N.SivaNagamani "A Novel Approach to Prevent Shoulder side Attacks" International Journal of Research, Volume 8, issue 4, pp: 856-860, April 2019.
- D.NithinSanju,guide Mr. Sk.Asiff," Enabling Accurate Route Search for Road based on Keywords " International Journal of Research, Volume 8, issue 4, pp: 2750-2765, April 2019.
- A.Durga Sameer Chandrahas, guide Dr. M. Mathan Kumar," Enabling Semantic Search Over Encrypted Outsourced Data" International Journal of Research, Volume 8, issue 4, pp: 2808-2813, April 2019.
- Sk. Misba, guides Dr. Y. Jahnavi, Dr. M. Mathan Kumar" An Efficient Secure System for DNA Data" International Journal of Research, Volume 8, issue 4, pp: 2795-2800, April 2019.
- K. Sai Ramya, guide Mr. A.L. V. Sravan Kumar," A Novel Approach to Detect Compromised Accounts" International Journal of Research, Volume 8, issue 4, pp: 2742-2749, April 2019.
- P. Manasa, guide Dr. N. Sudheer," Image Enhancement on Images using Histogram Equalization" International Journal of Research, Volume 8, issue 4, pp: 2766-2770, April 2019.
- Sk. Shanwaz, guide Mr. Sk. Asiff," Enabling Accurate Route Search for Road based on Keywords " International Journal of Research, Volume 8, issue 4, pp: 2808-2813, April 2019.
- D. Yaswanth, guide Mr. D. Yaswanth," Tri-Layer Framework for Computational Intelligence in Fog " International Journal of Research, Volume 8, issue 4, pp: 2167-2172, April 2019.
- A.N.V. Prudhvi, guide Mr R.Sivaiah,," Enabling Accurate Route Search for Road based on Keywords " International Journal of Research, Volume 8, issue 4, pp: 2808-2813, April 2019.
- T. LakshmiPriya, guide Mr. Dr.Y.Pavan Kumar Reddy," Deep Learning approach for stress detection based on social interactions " International Journal of Recent Researches in Science, Engineering & Technology, Volume 7, Issue 4, April 2019..
- K. Naga Durga Srivani, guide Ms. P. Radhika " An approach for opinion mining by Acumening the data through exerting the insights" International Journal of Research, Volume 8, issue 4, pp: 3752-3764, April 2019.

#### ✓ Workshops

- I Siva Sailaja, participated in "Python" NPTEL from Jan-Apr 2019 at IIT Madras.
- K Vishnu priya , participated in "Python" NPTEL from Jan-Apr 2019 at IIT Madras.
- T S S S Madhav, participated in "Python" NPTEL from Jan-Apr 2019 at IIT Madras.
- Sri Lakshmi Navya , participated in "Python" NPTEL from Jan-Apr 2019 at IIT Madras.
- Ch. Sujitha, participated in "Python" NPTEL from Jan-Apr 2019 at IIT Madras.