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K.L.N. College of Engineering, Pottapalayam - 630612

(An Autonomous Institution, Affiliated to Anna University, Chennai)

(Departmentof Information Technology)

September 2022

**Department of Information Technology** 

i 'storm- a technical thunder





Department of Information Technology



#### PRINCIPAL MESSAGE

#### THE EDITOR'S DESK



It is a matter of great pride and satisfaction for K.L.N. COLLEGE OF ENGINEERING to bring out the News Letter 'I'STORM' Released of from the Department Information Technology. The College has made tremendous progress in all areas- academic, non-academics, capacity building relevant to staff and students. The College has achieved another milestone in getting NBA (National Board of Accreditation).I am confident that this issue of Department News Letter will send a positive signal to the staff, students and the person who are interested in the Technical education and Technology based activities. A News Letter is like a mirror which reflects the clear picture of all sorts of activities undertaken by а Department and develops writing skills among students in particular and teaching faculty in general. I congratulate the Editorial Board of this News Letter who have played wonderful role in accomplishing the task in Record time. I express my deep sense of gratitude to Dr. Kumar, HOD/IT under P.Ganesh whose this Technical work guidance has been undertaken and completed within the stipulated time. Also my heartfelt Congratulations to staff members and Students for their fruitful effort. With Best wishes.

#### **PRINCIPAL** Dr. A.V. RAMPRASAD



It gives me immense pleasure to note that response to this newsletter of our department **i'STORM** has been overwhelming. The widespectrum of articles in different sections gives me a sense of pride that our students and professors possess creative potential and original thinking in ample measures. Each entertaining, article is interesting and absorbing. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them. Commendable job has also been done by the Editorial Board in planning for and producing the Newsletter. My congratulations to the team who took the responsibility for the arduous task most effectively. I am hopeful that this small piece of technical work shall not only develop the taste for reading among students but also develop a sense belonging to the institution as well.

H.O.D(IT)

Dr. P. GANESH KUMAR **NEWS LETTER EDITORIAL BOARD EDITOR-IN-CHIEF:** Dr. P. Ganesh kumar (HOD/IT) **STAFF-INCHARGE:** Mrs S Jeniba (AP<sub>2</sub>) **STUDENT EDITORS:** S. Sivaranjani (First Year) K.R. Venkataramana (First year) C.A. Sastha (First Year) B. Hanish Ram (First Year)

### **OUR COLLEGE:**

## Vision

To become a Centre of Excellence in Technical Education and Research in producing Competent and Ethical professionals to the society.

### Mission

To impart Value and Need based curriculum to the students with enriched skill development in the field of Engineering, Technology, Management and Entrepreneurship and to nurture their character with social concern and to pursue their career in the areas of Research and Industry.

### **OUR DEPARTMENT:**

# Vision

To emerge as a center of excellence through innovative technical education and research in Information Technology.

### Mission

To produce competent Information Technology professionals to face the industrial and societal challenges by imparting quality education with ethical values.

#### **Program Outcome**

- **1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. **Problem analysis**: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **3. Design/development of solutions:** *Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.*
- **4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. *Modern tool usage:* Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. *Ethics:* Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- *9. Individual and team work:* Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **12.** Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **<u>Program Educational Objectives</u>**

- 1. To excel in industrial or graduate work in Information Technology and multi-disciplinary Environments.
- 2. To adapt to ever changing technologies by applying Engineering Principles.
- 3. To practice professionalism conforming to ethical values, team work and Leadership.

### <u>Program Specific Outcomes</u>

- 1. To create better learning environment in line with technological updation and research progress.
- 2. To give industry exposure through research and consultancy in Information and Communication Technologies.

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demonstrated by computers, as opposed animal human to or intelligence. "Intelligence" encompasses the ability to learn and to reason, to generalize, and to infer meaning. AI applications include advanced web searchengines (e.g., Google Search), recommendation systems (used by YouTube, Amazon, and Netflix), understanding speech (such human as Siri and Alexa), selfdriving cars (e.g., Waymo), generati

is

intelligence

creative tools ve (ChatGPT).

Artificial intelligence was founded as an academic discipline in 1956, and in the years since it has experienced several waves of optimism,

**Artificial intelligence** (AI) followed by disappointment and the loss of funding (known AI as an winter), followed by new approaches, success, and renewed funding. AI research has tried and discarded many different approaches, including simulating the brain, modeling human problem solving, formal logic, large databases of knowledge, and imitating animal behavior. In the first decades of the 21st century, highly mathematical and statistical machine learning has dominated the field, and this technique proved highly has successful, helping to solve many challenging problems throughout industry and academia.



The History of AI: The history of artificial intelligence (AI) began in antiquity, with myths, stories and rumors of artificial beings endowed intelligence with or consciousness by master craftsmen. The seeds of modern AI were planted by philosophers who attempted to describe the process of human thinking mechanical the as manipulation of symbols. This work culminated in the invention of the programmable digital computer in the 1940s, a machine based on the abstract of essence mathematical reasoning. This device and the ideas behind it inspired a handful scientists begin of to seriously discussing the possibility of building an electronic brain.

Many of them predicted that a machine as intelligent as a human being would exist in no more than a generation, and they were given millions of dollars to make this vision come true. Eventually, it obvious became that commercial developers and researchers had grossly underestimated the difficulty of the project. In 1974, in response to the criticism from James ongoing Lighthill and pressure from congress, British the U.S.and Governments stopped funding undirected research into artificial intelligence, and the difficult years that followed would later be known as an "AI winter. Seven years later, a visionary initiative by the Japanese Government.

-C.A. Sastha (First year)

#### **EXPERTS IN AI:**

Ian J. Goodfellow (born1987)isanAmericancomputerscientest,engineer,

and executive, most noted for his work on artificial neural networks and deep

learning



He was previously employed research scientist a as at Google Brain and director machine learning of Apple and has made at several important contributions to the field of deep learning including invention of the generative adversarial the network (GAN). Goodfellow co-wrote the textbook Deep Learning (2016) and wrote the chapter on deep learning in the authoritative textbook of the field of artificial intelligence.

Education

obtained Goodfellow his B.S.and M.S. in computer science from Stanford Universityunder the supervision of Andrew Ng (co-founder and head of Google Brain), and his Ph.D. in machine learning from the Université de Montréal in April 2014, under the supervision of Yoshua Bengio andAaron .Courville. Goodfellow's thesis is titled Deep learning of representations and its application to computer vision



Andrew Ng (Chinese: 吳恩達; born British-1976) is а American computer scientist and technology focusing entrepreneur machine on artificial and learning intelligence (AI).



Ng was a cofounder and head of Google Brain and was the former Chief Scientist at Baidu, building the company's Artificial Intelligence Group into a team of several thousand people.

Ng is an adjunct professor at Stanford University(formerly associat e professor and Director of its Stanford AI Lab or SAIL).

#### Yan-Tak Career:

Academia and teaching

Ng is a professorat Stanford University departments of Computer Science and electrical engineering. He served as the director of the Stanford Artificial Intelligence

Laboratory (SAIL), where he taught students and undertook research related to data mining, big data, and machine learning. His machine learning course CS229 at Stanford is the most popular course offered on campus with over 1,000 enrolling students some years. As of 2020, three of most popular courses on Coursera are Ng's: Machine Learning, AI for Everyone, Neural Networks and Deep Learning. In 2008 his group at Stanford was one of the first in the US to start advocating the use of GPUs in deep learning.

Fei-Fei Li (simplified Li works on AI, machine Chinese: 李飞飞; traditional learning, Chinese: 李飛飛; born 1976) is an American computer scientist who was born in China and is known for establishing ImageNet, the dataset that enabled rapid computer advances in vision in the 2010s.

is the Sequoia ural She Capital Professor of Science Computer at Stanford Universityand director former board at <u>Twitter.</u> Li is a Co-Director of the Stanford for Human-Institute Artificial Centered Intelligence, and a Coof the Stanford Director Learning Vision and Lab.She as the served director of the Stanford Artificial Intelligence Laboratory (SAIL) from 2013 to 2018.

computer vision, cognitive neuroscienceand computati onal neuroscience. She has published more than 300 peer-reviewed research papers. Her work appears in computer science and neuroscience jo

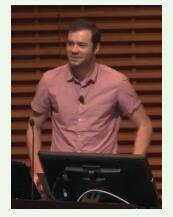


including Nature, Proceedin gs of the National Academy of Sciences Journal of Neuroscience Conference on Computer Vision and Pattern Recognition, International Conference on Computer Vision Conference on Neural Information Processing Systems .

Karpathy was born Karpathy is a founding in Bratislava, Czechoslovaki a (now Slovakia) and moved family with his to Toronto when he was 15. He completed his Computer Physics Science and degrees bachelor's at University of Toronto in 2009 and his master's degree at University of British Columbia in 2011, where he worked on physically-simulated figures (for example, a simulated a simulated runner or person in a crowd).

Karpathy received a PhD from Stanford University in 2015 under the supervision of Fei-Fei Li focusing on the intersection of natural language processing and computer vision, and deep learning models suited for this task.

member of the artificial intelligence research group OpenAI where he was a research scientist from 2015 to 2017. In June 2017 he became Tesla's of director artificial intelligence. He was named one of MIT Technology Review's Innovators Under 35 for 2020.



After taking a several months-long sabbatical from Tesla, he announced he was leaving the company in July 2022. As of February 2023, he makes YouTube videos how on to create artificial neural networks.

Hassabis was born to went on to be educated a Greek Cypriot father and at а Singaporean mother and <u>funded</u>comprehensive up grew London. A child prodigy in chess from the age of 4, Hassabis reached master standard at the age of 13 with an Elo rating of 2300 and captained many of the England junior chess teams. He represented the University of Cambridge in Oxfordthe Cambridge varsity chess matches of 1995, 1996 and He went on to be educated 1997, winning a half blue.

Hassabis was briefly homeschooled by his parents, during which time he bought his first computer, a ZX Spectrum 48K funded from chess winnings, and taught himself how to program from books. He

Christ's College, Chinese Finchley, а statein North schooL in East Finchley.



Christ's College, at Finchley, stateа <u>funded</u> comprehensive schoolin East Finchley, North London. He completed his Alevelsand scholarship level exams two years early at the ages of 15 and 16 respectively.

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Jeremy Howard (born 13 November 1973) is an Australian data scientist, entrepreneur, and educator.<sup>[1]</sup>

He is the co-founder of fast.ai, where he teaches introductory

courses, develops software, and conducts research in the area of deep learning.

Previously he founded and led Fastmail, Optimal Decisions Group, and Enlitic. He was President and Chief Scientist of Kaggle.

Early in the COVID-19epidemic he was a leading advocate for masking.

#### FAST AI

Together with Rachel Thomas, he is the COfounder of fast.ai, a research dedicated institute to make Deep Learning more accessible. He teaches introductory courses, both online and in-person, and the University at of Queensland, where he is honorary professor at the School of Information Technology and Electrical Engineering. Previously he taught at the University of San Francisco, where he was Distinguished Research Scientist. He also develops software, such as the Fastai libary.

#### Kaggle:

Howard first became involved with Kaggle, founded in April 2010, after becoming the globally topranked participant in data science competitions in both 2010 and 2011.



Geoffrey Everest After his PhD, Hinton Hinton CC, FRS FRSC (bor worked at the University of n 6 December 1947) is a British-Canadian cognitive psychologist and computer scientist, most noted for his work on artificial neural networks. From 2013 to 2023, he divided his time working for Google (Google Brain) and the University of Toronto, before publicly announcing his departure from Google in May 2023 citing concerns about the risks artificial of (AI) intelligence technology. In 2017, he cofounded and became the chief scientific advisor of the Vector Institute in Toronto.



Sussex and (after difficulty finding funding in Britain) the University of California, San Diegoand Carnegie Mellon University. He was the founding director of Gatsby Charitable the Foundation Computational Neuroscience Unit University College at London and is currently a professor in the computer science department at the University of Toronto.]

He holds a Canada Research Chair in Machine Learning and is currently an advisor Learning for the in Machines & Brains program at the Canadian Institute for Advanced Research. Hinton taught a free online course on Neural Networks the education on platform Coursera in 2012.

### Rana

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**Kaliouby** (Arabic: رنا born 1978) is an القليوبي; Egyptian-American computer scientist and entrepreneur in the field of expression recognition research and technology El Kaliouby was inducted development, which is a subset of facial Engineering" Hall recognition designed Fame. She is also a member identify the to emotions expressed by the face. El Kaliouby's research moved beyond the field's dependence on exaggerated or caricatured expressions modeled by laboratory actors, to focus on the subtle glances found in real situations.She is the cofounder, with Rosalind Picard, CEO of Affectiva.

A pioneer in Artificial Intelligence as well as the co-founder and CEO of Affectiva, an AI startup spun off from the MIT Media Lab.



into the "Women in of of ACM, IEEE, Association Children's of Museums, British Machine Vision Association, and Nahdet el Mahrousa.Other awards include: 7 Women to Watch in 2014 - Entrepreneur Magazine Mass High Tech Top 20 Women to Watch 2014 The Wired Smart List -Wired 2013 Smithsonian Magazine American Ingenuity Award in Technology.

-K.S. Achuthen (First year)

#### TIMELINE

#### PUBLICATIONS IN INTERNATIONAL / NATIONAL JOURNAL

				-
Name of the Author(s)	Title of the Paper	Name of the Journal	Month and Year of publication	ISSN
DR. P. GANESH KUMAR - Prof/HOD/IT	IOT Based Milk Monitoring System For The Detection Of Milk Adulteration	Journal of Engineering and Technology Advancements	Volume no 2 Issue no 2 Year of 2022 (24.05.22)	Volume 2 / Issue 2 Paper Id: JETA- V2I2P102 Page : 6-9 Volume 2 / Issue 2 Paper Id: JETA- V2I2P102 Page : 6-9
DR. G.RAMESH - Prof/IT	Feedback classification for instagram feed	International Journal of Science and Engineering Development Research	lssued May 5th 2022	(ISSN 2455- 2631)
DR. J.S. KANCHANA -Prof/IT	Garbage classification using random forest algorithm	International Journal of Emerging Technology and Innovative Research in Hereby Awarding	lssue May 5,2022	(ISSN:2349- 5162)
DR. J.S. KANCHANA -Prof/IT	ABC Optimization for Quantized Product Recommendation	International Journal of all research Education and Scientific methods	lssued 5thMay2022	(ISSNno2455- 6211)
DR. J.S. KANCHANA -Prof/IT	Tag based visual and functional characteristics of product using SVM classification	International Journal of Science& Engineering Development Research	lssued May5th 2022	(ISSN 2455- 2631
DR. S.ILANGOVAN-	Diabetes Prediction Using Random Forest	International Journal of Science&	lssued May5th 2022	(ISSN 2455- 2631

Mr. M. SATHEES KUMAR - AP/IT	Secure surveillance rover for smart environments	International Journal of Science& Engineering Development Research	Issued May5th 2022	(ISSN 2455- 2631
Mrs. S. VIJAYA SHARMILA - AP/IT	Secure Sharing of Contents using BGKM	International Journal of Science& Engineering Development Research	Issued May5th 2022	(ISSN 2455- 2631
Mr. V. ARAVINDA RAJAN - AP/IT	Automation Of Shopping Mart By Self Checkout System Using IOT	ESP Journal of Engineering and Technology Advancements	Issued 24₅ may 2022	Volume 2 / Issue 2 Paper Id: JETA- V2I2P101
Mr. V. ARAVINDA RAJAN - AP/IT	Risk prediction of crime data using ARIMA and LSTM	International Journal of Science& Engineering Development Research	Issued May5th 2022	(ISSN 2455- 2631
Mrs. N. LOGAMITHRA - AP/IT	Hybrid deep learning for botnet attack detection using convolution neural network	International Journal Of Emerging Technology In Computer Science And Electronics	Issue 27th May 2022	(ISSN 0976- 1353)
Ms. R.M. SUGANYA - AP/IT	Secure Deduplication For Cloud Storage Using AES Algorithm	International Journal of Science& Engineering Development Research	Issued May5th 2022	(ISSN 2455- 2631
Mrs. P. RAMYA, AP/IT	Improved bank customer profiling using modified k means clustering	International Journal of Science& Engineering Development Research	Issued May5th 2022	(ISSN 2455- 2631

#### SHORT TERM COURSES /SEMINARS/ CONFERENCES / WORKSHOPS ATTENDED

CONTERENCES / WORRSHOT SATTENDED					
S.No.	Name of the faculty	Title of the event, FDP/Workshop/ Seminar	Date	Sponsored by (AICTE/ AU/ IEEE/ IEI/ ISTE etc.)/Self Support	
1	Dr.G.Rames, Prof/It	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
2	Dr.S.Ramesh, ASP/IT	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
3	Mr.A.Selvaraj, AP(Sr.Gr)/IT	FDP on " Conputer Vision and Natural Language Processing"	08-08- 2022 To 18-08- 2022	Easwari Engineering College	
4	Mrs.S.Vijayasharmila, AP/IT	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
5	Mrs.S.Vijayasharmila, AP/IT	FDP on " Conputer Vision and Natural Language Processing"	08-08- 2022 To 18-08- 2022	Easwari Engineering College	
6	Mr. V. Aravinda Rajan, AP/IT	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
7	Ms. N. Muthamil Selvi, AP/IT	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
8	Mr. G.H. Ram Ganesh, AP/IT	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
9	Ms. RM. Suganya, AP/IT	FDP on "Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College	
10	Ms. RM. Suganya, AP/IT	FDP on "Amazon Web Services"	22-8-22 to 27-8-22	AICTE & BRAINOVISION SOLUTIONS INDIA PVT.LTD	

S.No.	Name of the faculty	Title of the event, FDP/Workshop/ Seminar	Date	Sponsored by (AICTE/ AU/ IEEE/ IEI/ ISTE etc.)/Self Support
11	Mrs. N. Loga Mithra, AP/IT	FDP on " Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College
12	Ms. N.Muthamil Selvi, AP/IT	Short term Training Programme on Deep Learning Tools and its Applications	25-7-22 To 29-7-22	ISTE, Sri SAI RAM Engineering College.
13	Ms. N.Muthamil Selvi, AP/IT	FDP on "Amazon Web Services"	22-8-22 То 27-8-22	AICTE & BRAINOVISION SOLUTIONS INDIA PVT.LTD PPG Institute Of Technology
14	Ms. RM. Suganya, AP/IT	Short term Training Programme on Deep Learning Tools and its Applications	25-7-22 То 29-7-22	ISTE, Sri SAI RAM Engineering College.
15	Mr. GH.Ram Ganesh, AP/IT	FDP on "Amazon Web Services"	22-8-22 To 27-8-22	AICTE & BRAINOVISION SOLUTIONS INDIA PVT.LTD PPG Institute Of Technology
16	Mrs. T.T.Mathangi, AP/IT	FDP on "Amazon Web Services"	22-8-22 To 27-8-22	AICTE & BRAINOVISION SOLUTIONS INDIA PVT.LTD PPG Institute Of Technology

S.No.	Name of the faculty	Title of the event, FDP/Workshop/ Seminar	Date	Sponsored by (AICTE/ AU/ IEEE/ IEI/ ISTE etc.)/Self Support
17	Mrs. N. Loga Mithra, AP/IT	FDP on "Amazon Web Services"	22-8-22 to 27-8-22	AICTE & BRAINOVISIO N SOLUTIONS INDIA PVT.LTD PPG Institute Of Technology
18	Mrs.P.Ramya, AP/IT	FDP on " Cloud Practioner (AWS)"	25-7-22 to 29-7-22	ICT Academy
19	Mrs. P. Ramya, AP/IT	FDP on " Recent Advancements and Applications of Data Science"	27-6-22 To 02-7-22	Institution of Engineers (India) Paavai Engineering College
20	Mrs. P. Ramya, AP/IT	FDP on " Recent Advancements and Applications of Data Science"	22-8-22 to 27-8-22	AICTE & BRAINOVISIO N SOLUTIONS INDIA PVT.LTD Aditya Engineering College
21	Mrs.P.Ramya, AP/IT	Design Thinking Course	01-07-20 to 07-07-22	Turnip Innovations
22	Mrs.K.Nivethika, AP/IT	FDP on "Amazon Web Services"	22-8-22 to 27-8-22	AICTE & BRAINOVISIO N SOLUTIONS INDIA PVT.LTD PPG Institute Of Technology
23	Mrs. J. Alice Anandhi, AP/IT	FDP on "Amazon Web Services"	22-8-22 to 27-8-22	AICTE &BRAINOVISI ON SOLUTIONS INDIA PVT.LTD PPG Institute Of Technology

#### SHORT TERM COURSES /SEMINARS/ CONFERENCES / WORKSHOPS ATTENDED

Date	Topic / Title	Details of Resource Person	Number of partici- pants	Co-ordinator
12.08.22	Expert talk on "Career Guidance"	Mr. Sivaprakaash Pandian, IT Architect Robert Bosch- Germany	50	Mr. V. Aravinda Rajan, AP/IT Mr. G.H. Ram Ganesh, AP/IT
17-08-22	Orientation Program for e- Yantra Competition ( 2022-2023)	Ms. A. Deepa, Project Manager, e-Yantra / IIT Bombay.	50	Mr. V. Aravinda Rajan, AP/IT
20-06-22	Expert talk on " Project Collabrations and Opportunities in USA & Higher Studies Program in United States"	Dr. C.K. Rajkumar, ssistant Professor, Department of ECE, University of Pittsburgh, USA.	50	Mr. V. Aravinda Rajan, AP/IT

#### SHORT TERM COURSES /SEMINARS/ CONFERENCES / WORKSHOPS ATTENDED

Name of the student	Year	Title of the event	Venue / Date	Prize won
Amirthavarshini Preethi kannan,Venkatesh, jothy,jothy shivani,Harshika, Madumitha	III-IT	Smart India	Sri Eshwar College of Engineering (24.8.22 TO 26.8.22)	Participated

#### **INDUSTRIAL VISITS**

Year / Sem	Date	INDUSTRY VISITED
III/VI	26.5.2022	Kodaikanal Solar Observatory.
IV/VIII	20.5.2022	Kodaikanal Solar Observatory.

#### **TIPS FOR AI:**

Define clear objectives: Clearly define the problem or task you want your AI system to solve. This will help guide your development process and ensure you stay focused on the desired outcome.

Gather high-quality data: AI rely on models large amounts of quality data for training and learning. Ensure that the data you collect is accurate, relevant, and representative of the problem domain you're addressing. Preprocess and clean the data: Before feeding data into your AI model, it's essential to preprocess and clean it.



# Train and fine-tune your model:

Train your AI model using the prepared data. This involves feeding the data into the model, adjusting its parameters, and optimizing it for performance. Finetuning may be necessary to improve accuracy and achieve better results.

Test and validate your Evaluate model: the performance of your AI model using test data that not used during was training. This helps ensure that your model generalizes and performs well accurately on unseen data.

Validate the results against known benchmarks or ground truth if available.

Understand capabilities: Different versions of AI models may have varying capabilities and limitations. Familiarize yourself with the specific features and functionalities of the AI version you are Read working with. the documentation and explore any release notes or updates to get a clear understanding of what the AI model can do.

Stay up to date: AI technology is evolving rapidly, and new versions bring significant may in improvements performance, accuracy, or new features. Stay updated with the latest releases and advancements in the AI field to leverage the most recent developments and make the most of the technology.

the This will help you determine the optimal use of the AI model and identify any areas where it may require fine-tuning.

your workflows: Adapt Different versions of AI models may have changes APIs, input/output in formats, or deployment options. Be prepared to adapt your workflows and systems accordingly. Ensure compatibility between your existing infrastructure and the requirements of the AI version you are using.

Utilize community resources: AI communities and forums are excellent resources for learning and troubleshooting. Engage with the community to seek guidance, share experiences, and get insights from others who have worked with the same or similar AI versions.

Leverage model-specific AI Different AI understand features: versions may introduce new recommended approach for features or improvements. Take advantage of these enhancements to enhance performance the or functionality of your AI applications. For example, if a newer version offers natural language better processing capabilities, you can incorporate that into chatbot or virtual your assistant.

Consider retraining or fine-tuning: If you have previously trained or finetuned an AI model on an older version, you may need to retrain or fine-tune it on the new version to achieve optimal results. Check the documentation or guidelines provided by the

framework to the migrating updating or models.

Remember that these tips are general guidelines, and specific considerations may vary depending on the AI framework or technology you are using. Always refer to the documentation and guidelines provided by the AI provider to ensure the best practices for working with different AI versions.



-K.R. Venkataramana (First year)

