

**BVRIT HYDERABAD College of Engineering for Women**  
(Approved by AICTE | Affiliated to JNTUH | Accredited by NAAC with Grade 'A' & NBA for CSE, ECE, EEE, & IT)  
**Bachupally, Hyderabad-500090**  
**Department of Computer Science & Engineering**

**Center of Excellence for Sustainable AI**



**Name of the Coordinator** : Dr. Venkatesh B  
**Designation** : Associate Professor  
**Email -Id** : venkatesh.b@bvrithyderabad.edu.in

**Mission and Vision**

The Center of Excellence for Sustainable AI is dedicated to Conduct research that develop AI technologies that are, environmentally friendly, and address global sustainability challenges adhering to ethical principles.

**Objectives:**

- To leverage cutting-edge AI techniques to conduct student, faculty research that address critical sustainability challenges and advances the field.
- To conduct research targeting Sustainable Development Goals (SDGs).
- To publish the research findings in reputed journals and conferences.
- To actively engaging with the global academic community and industry to promote knowledge transfer.

**Faculty Members:**

S.No.	Name	Designation	Qualification	Specialization
1.	Dr. V. Surya Narayana Reddy	Assistant Professor	Ph. D.,	Machine Learning, Deep Learning, Data Science, Wireless Sensor Networks
2.	Dr. Akansha Tyagi	Assistant Professor	Ph.D.,	Image preprocessing, Feature extraction, Machine learning
3.	Ms. B. Nagaveni	Assistant Professor	M. Tech .,[Ph. D]	Machine Learning, Deep Learning, Data Mining
4.	Ms. Poonam Lunawat	Assistant Professor	M. Tech	Machine Learning , Natural language processing

## Infrastructure

S.No.	Name of the Equipment	Unit Cost	Quantity
1.	Ultra-Super Server SYS62U-TNR Intex Xeon Silver 4310, Processor 12-Core 2.1Ghz, 18MB Cache(120W) 128 GB RAM DDR4, 2*960 GB SSD, GPU KIT NVIDIA RTX A6000	Rs. 11,02,500/-	1
2.	IBM Server X3650M4 8GB RAM, 3* 600GB HDD	Rs. 2,55,164/-	1
3.	Dell Power Edge R710 256 GB, 4TB SATA HDD	Rs. 1,82,009/-	1
4.	Dell Power Edge Rack Server R540 16GB RAM 2TB HDD, Sr. No. 6XBPZ23	Rs. 2,40,900/-	1
5.	Internet Speed @1420 MBPS		

## List of Open-Source Software

S.No.	Name of Software
1.	R
2.	Python
3.	Jupyter Notebook
4.	Apache Hadoop, Spark, Flink
5.	Tableau
6.	Weka

## **MOU's:**

1. MOU signed with AIMER for collaborative projects on computer vision in medical applications.
2. MOU signed with ARAI, Pune for collaborative work related to semiconductor applications and computer vision.

## Outcomes

The Center for Sustainable AI (CSAI) could focus on a number of positive outcomes, potentially in these areas:

- Faculty and Students could enhance their expertise in the area of Sustainable AI.
- Students were able to carry out AI projects during III, IV year.
- Students were able to participate and crack national level hackathons.

## List of projects

<b>S.No.</b>	<b>Title</b>	<b>Specialization</b>	<b>Faculty mentor</b>	<b>Academic Year (Keep Latest first)</b>
1	Smart Bin for Waste Management	Deep Learning	Mr. K. Bhargav Ram	2023-2024
2	Advancements in Air Quality Forecasting	Machine Learning	Ms. Suparna Das	2023-2024
3	Fake Product Identification using Block chain Technology	Block chain	Dr. M. Indra Sena Reddy	2023-2024
4	Plant Disease Detection Using Deep Learning	Deep Learning	Ms. K. Neha	2023-2024
5	Automatic Street lighting using Renewable Energy	Machine Learning	Dr. N. Sreekanth	2023-2024
6	IoT-Driven Water Quality Monitoring System for a Sustainable Future	IoT	Ms. E. G. Padmavati	2023-2024
7	Fake News Detection using Deep Learning	Deep Learning	Dr. Reya Sharma	2023-2024
8	Plant Leaf Disease detection using CNN	Machine Learning	Mr. K. Bhargav Ram	2022-2023
9	Crime analysis and prediction	Machine Learning	Mr. C. Nagaraju	2022-2023
10	Novel stock prediction for Indian stock market using ensemble techniques	Deep Learning	Ms. Shanmuga Sundari	2022-2023

## List of Publications

S. No.	Title	Name of the Journal/Conf/Book/Book Chapter	Academic year (Keep Latest first)	DoI/ISSN/ISBN	Web Link	SDG
1	People Count From Surveillance Video Using Convolution Neural Net	Lecture Notes In Networks And Systems	2022	978-981-19-4863-3	<a href="https://link.springer.com/chapter/10.1007/978-981-19-4863-3_5">https://link.springer.com/chapter/10.1007/978-981-19-4863-3_5</a>	9
2	Detect Traffic Lane Image Using Geospatial Lidar Data Point Clouds With Machine Learning Analysis	Lecture Notes In Networks And Systems	2022	978-981-19-4862-6	<a href="https://link.springer.com/chapter/10.1007/978-981-19-4863-3_21">https://link.springer.com/chapter/10.1007/978-981-19-4863-3_21</a>	9
3	Ocr-Lstm: An Efficient Number Plate Detection System	Intelligent System Design	2022	978-981-19-4862-6	<a href="https://link.springer.com/chapter/10.1007/978-981-19-4863-3_13">https://link.springer.com/chapter/10.1007/978-981-19-4863-3_13</a>	9
4	Deviation And Cluster Analysis Using Inductive Alpha Miner In Process Mining	Lecture Notes In Networks And Systems	2022	978-981-19-4989-0	<a href="https://link.springer.com/chapter/10.1007/978-981-19-4990-6_41">https://link.springer.com/chapter/10.1007/978-981-19-4990-6_41</a>	4
5	Detect Traffic Lane Image Using Geospatial Lidar Data Point Clouds With Machine Learning Analysis	Lecture Notes In Networks And Systems	2022	978-981-19-4862-6	<a href="https://link.springer.com/chapter/10.1007/978-981-19-4863-3_21">https://link.springer.com/chapter/10.1007/978-981-19-4863-3_21</a>	9
6	Clustering Student Learners Based On Performance Using K Means Algorithm	2022 International Mobile And Embedded Technology Conference (MECON)	2022	978-1-6654-2020-4	<a href="https://ieeexplore.ieee.org/document/9752165">https://ieeexplore.ieee.org/document/9752165</a>	4
7	Novel Coronavirus Progression Analysis Using Time Series Forecasting	Algorithms For Intelligent Systems, Springer (Proceedings Of ICACECS 2021)	2022	978-981-16-7388-7	<a href="https://link.springer.com/chapter/10.1007/978-981-16-7389-4_11">https://link.springer.com/chapter/10.1007/978-981-16-7389-4_11</a>	3
8	Forecasting Hourly Electrical Energy Output Of A Power Plant Using Parametric	Advances In Computers Book Series (AISC) Of Springer, Singapore	2022	978-981-16-7087-9	<a href="https://link.springer.com/chapter/10.1007/978-981-16-7088-6_44">https://link.springer.com/chapter/10.1007/978-981-16-7088-6_44</a>	7
9	Statistical Analysis Of Text Corpus To Determine Appropriate Syllable Length For TTS	International Conference On Data Science, Machine Learning And Applications (ICDSMLA 2020)	2021	978-981-16-3689-9	<a href="https://link.springer.com/chapter/10.1007/978-981-16-3690-5_80">https://link.springer.com/chapter/10.1007/978-981-16-3690-5_80</a>	4
10	An Intelligent Tutoring System For New Student Model Using Fuzzy Soft Set-Based Hybrid Optimization Algorithm	Journal Of Soft Computing, Springer	2021	1433-7479	<a href="https://link.springer.com/article/10.1007/s00500-021-06396-8">https://link.springer.com/article/10.1007/s00500-021-06396-8</a>	4

11	Experiential Study To Integrate Theory And Lab For An Introductory Programming Course In An Indian Engineering Classroom	Journal Of Applied Learning & Teaching	2021	2591-801X	<a href="https://journals.sfu.ca/jalt/index.php/jalt/article/view/443">https://journals.sfu.ca/jalt/index.php/jalt/article/view/443</a>	4
12	Prediction Of COVID 19- Chest Image Classification And Detection Using RELM Classifier In Machine Learning	8th International Conference On Advanced Computing And Communication Systems (ICACCS)	2022	<a href="https://doi.org/10.1109/ICACCS54159.2022.9785131">https://doi.org/10.1109/ICACCS54159.2022.9785131</a>	<a href="https://ieeexplore.ieee.org/document/9785131">https://ieeexplore.ieee.org/document/9785131</a>	3
13	Analysis Of Women Safety In Indian Cities Using Twitter Data	A Journal Of Composition Theory	2021	0731-6755	<a href="http://www.jctjournal.com/gallery/1-aug2021.pdf">http://www.jctjournal.com/gallery/1-aug2021.pdf</a>	5
14	Analysis Of Covid Confirmed And Death Cases Using Different ML Algorithms	Intelligent Systems	2021	978-981-33-6081-5	<a href="https://link.springer.com/chapter/10.1007/978-981-33-6081-5_7">https://link.springer.com/chapter/10.1007/978-981-33-6081-5_7</a>	3
15	Key Frame Extraction For Content Based Lecture Video Retrieval And Video Summarisation Framework	European Journal Of Molecular & Clinical Medicine	2020	2515-8260	<a href="https://ejmcm.com/article_5102_df948bddeefe26b393a4c899627823fc.pdf">https://ejmcm.com/article_5102_df948bddeefe26b393a4c899627823fc.pdf</a>	4
16	Location Related Signals With Satellite Image Fusion Method Using Visual Image Integration Method	Journal Of Computer Systems Science & Engineering	2020	0267-6192	<a href="https://www.techscience.com/csse/v35n5/40512">https://www.techscience.com/csse/v35n5/40512</a>	8
17	Performance Analysis Of Various Deep Learning Algorithms In COVID-19 Detection With Chest X-RAY Images.	High Technology Letters	2020	1006-6748	<a href="http://www.gjstx-e.cn/gallery/107-sep2020.pdf">http://www.gjstx-e.cn/gallery/107-sep2020.pdf</a>	3
18	Performance Analysis Of Various Deep Learning Algorithms In COVID-19 Detection With Chest X-RAY Images.	High Technology Letters	2020	1006-6748	<a href="http://www.gjstx-e.cn/gallery/107-sep2020.pdf">http://www.gjstx-e.cn/gallery/107-sep2020.pdf</a>	3
19	Hard Hat Detection Using Deep Learning Techniques	International Journal Of Advanced Science And Technology	2020	2005-4238	<a href="http://serisc.org/journals/index.php/IJAST/article/view/20830/10497">http://serisc.org/journals/index.php/IJAST/article/view/20830/10497</a>	9
20	Performance Evaluation Of Intelligent Face Mask Detection System With Various Deep Learning Classifiers	International Journal Of Advanced Science And Technology	2020	2005-4238	<a href="http://serisc.org/journals/index.php/IJAST/article/view/23805">http://serisc.org/journals/index.php/IJAST/article/view/23805</a>	3
21	A Survey On Fake News Detection In Social Media Using Deep Neural Networks	International Journal Of Scientific & Technology Research	2020	2277-8616	<a href="http://www.ijstr.org/final-print/mar2020/A-Survey-On-Fake-News-Detection-In-Social-Media-Using-Deep-Neural-Networks.pdf">http://www.ijstr.org/final-print/mar2020/A-Survey-On-Fake-News-Detection-In-Social-Media-Using-Deep-Neural-Networks.pdf</a>	9

22	House Price Prediction Using Machine Learning	International Journal Of Innovative Technology And Exploring Engineering (IJITEE)	2019	2278-3075	<a href="https://www.ijitee.org/wp-content/uploads/papers/v8i9/I7849078919.pdf">https://www.ijitee.org/wp-content/uploads/papers/v8i9/I7849078919.pdf</a>	9
23	Machine Learning Based Recognition Of Crops Diseases By CNN	International Journal Of Innovative Technology And Exploring Technology	2019	2278-3075	<a href="https://www.ijitee.org/wp-content/uploads/papers/v8i9/I8133078919.pdf">https://www.ijitee.org/wp-content/uploads/papers/v8i9/I8133078919.pdf</a>	3
24	Word N-Gram Based Approach For Word Sense Disambiguation In Telugu Natural Language Processing	International Journal Of Recent Technology And Engineering	2019	2277-3878	<a href="https://www.ijrte.org/wp-content/uploads/papers/v7i6s4/F11410476S419.pdf">https://www.ijrte.org/wp-content/uploads/papers/v7i6s4/F11410476S419.pdf</a>	9
25	Region Based Age Classification Using Cross Diagonal Centre Symmetric Motif Matrix (CD-CS-MM)	International Journal Of Innovative Technology And Exploring Engineering	2019	2278-3075	<a href="https://www.researchgate.net/publication/332035567_Region_based_age_classification_using_cross_diagonal_centre_symmetric_motif_matrix_CD-CS-MM">https://www.researchgate.net/publication/332035567_Region_based_age_classification_using_cross_diagonal_centre_symmetric_motif_matrix_CD-CS-MM</a>	3
26	Age Classification Based On Appearance Model Using Local Ternary Direction Pattern Approach	International Journal Of Innovative Technology And Exploring Engineering (Ijitee)	2018	2278 - 3075	<a href="https://www.ijitee.org/wp-content/uploads/papers/v8i2s/BS2722128218.pdf">https://www.ijitee.org/wp-content/uploads/papers/v8i2s/BS2722128218.pdf</a>	3
27	Prototype For Policy Recommendation System Based On Aadhar Data	International Journal Of Latest Trends In Engineering And Technology	2017	2278-621x	<a href="https://www.ijltet.org/pdfviewer.php?id=911&amp;j_id=3713">https://www.ijltet.org/pdfviewer.php?id=911&amp;j_id=3713</a>	9

**Achievements of Center of Excellence:**

- 27 Papers are published in various Conferences/Journals indexed in Scopus/WoS/SCI.
- 10 Projects were executed.



**Gallery:**







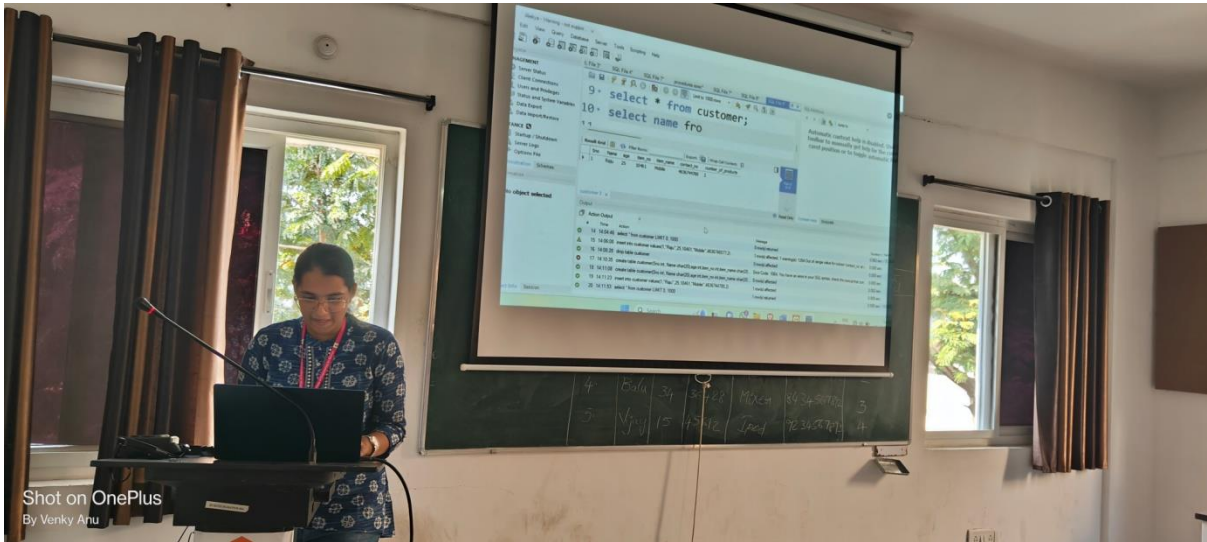




Hyderabad, Telangana, India  
S. S Avenue Apartment, Whisper Valley St, Satyam Valley, Whisper Valley, Hyderabad,  
Telangana 500090, India  
Lat 17.526616°  
Long 78.37048°  
16/03/24 10:08 AM GMT +05:30

 **GPS Map Camera**

Shot on OnePlus  
Venky Anu







Hyderabad, Telangana, India  
G9GC+G3H, Satyam Valley, Whisper Valley, Hyderabad, Telangana  
500090, India  
Lat 17.526485°  
Long 78.370326°  
16/03/24 10:19 AM GMT +05:30

GPS Map Camera