

BAPATLA ENGINEERING COLLEGE::BAPATLA

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

FACULTY ATTENDED EVENTS DETAILS

JANUARY MONTH ACHIEVEMENTS

Dr. D Kishore Babu, published a paper title "Deep residual network-based data streaming approach for soil type application under IoT-based big data environment" Publisher : Springer, 04th January 2023.

Wireless Networks
<https://doi.org/10.1007/s11276-022-03195-3>

ORIGINAL PAPER



Deep residual network-based data streaming approach for soil type application under IoT-based big data environment

D. Kishore Babu¹ · C. Ravindra Raman² · D. Venkata Divakara Rao³

Accepted: 18 October 2022

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Abstract

The agriculture acquires more portions in Gross Domestic Product in the developed countries. However, analysis of the soil properties is a costly and time-consuming process. In this research, a new technique for classifying soil types on an IoT platform is developed. This method simulates the Internet of Things in order to transmit data. The Multi-verse Firefly algorithm (MVFA), which has been proposed, is used for clustering and routing. In this case, the Multi-Verser Optimizer and Firefly algorithm are used to generate the proposed MVFA. At base station, the soil type classification is carried out utilizing the soil data. A selection of feature is done using an entropy factor and the type of soil is classified using Deep Residual Network considering spark architecture. The proposed MVFA trains the Deep Residual Network. The data stream is effectively handled with concept drift detection, and retraining of deep residual network is carried out utilizing Mutual information and Loss function-based thresholding. The proposed MVFA-enabled Deep Residual Network bestowed enhanced performance with an accuracy of 96%, sensitivity of 94.1%, specificity of 95.4%, delay of 90.6% and throughput of 0.0084.

Keywords Soil type classification · IoT model · Data streaming · Spark model · Entropy · Multi-verse optimizer · Firefly algorithm

1 Introduction

The agriculture and farming contributes to most of the GDP and helps to develop nations. In addition, the farming assists to flourish sustainable development, fauna and flora, and helps to handle the global crisis, like climatic changes, pandemic. The better technologies help to build better cultivation and assist to prevent scenarios, like malnutrition and starvation. In addition, the smarter home models are widely utilized from the IoT model. In addition, the smart agriculture seems to lag behind other areas and needs more research for attaining the sustainable goals at agriculture

industries [3]. Evaluating and analyzing the components of soil and properties is basically a time-consuming and expensive task. The shortage of data sampling is balanced by the outcomes of modeling and forecasts. Several modeling processes termed as predictive soil mapping are devised for estimating the spatial distribution of soil-based attributes. Discovery of several chemical and physical soil properties requires the lengthy and time-consuming testing rooms for conducting the tests. For these type of reasons, it is necessary to design techniques that are able to estimate them on the basis of knowledge and recognized properties. While accessing the properties of soil, one assumes that the data taken for input requires being splitted into several homogeneous soil sets. In [23], it is assumed to evaluate the capacity of cation exchange from clay and silt content, organic carbon content and soil Potential of Hydrogen (pH) considering linear regression models [7, 33].

In civil built platform, the type of soil [34, 35] is considered as an imperative part in discovering the kind of foundation utilized when structuring the building. Present soil identification techniques are time exhaustive,

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FEBURARY MONTH ACHIEVEMENTS

Dr. D Kishore Babu has successfully Completed Android Educator Program as **Educator** during 2022-2023 academic year.

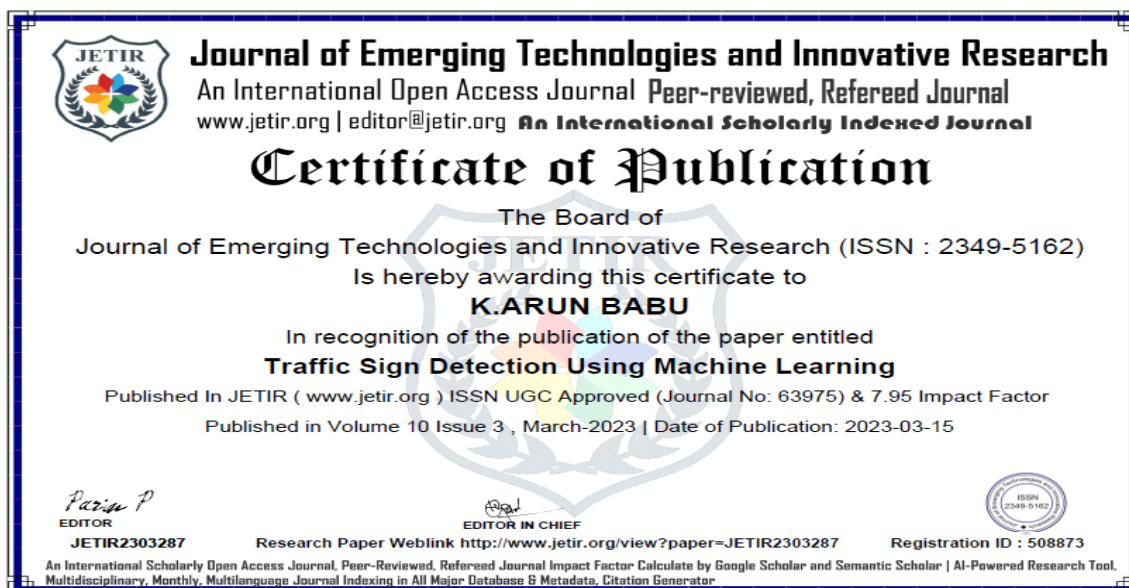


MARCH MONTH ACHIEVEMENTS

K.ARUN BABU published a paper title: **DDoS Attack Detection Based on Semi Supervised Machine Learning Approach** in **Journal of Emerging Technologies and Innovative Research (JETIR)** ISSN UGC Approved (Journal No: 63975) Date of Publication: 02-03-2023 and Paper ID: JETIR2302532.



K.ARUN BABU published a paper title: **Traffic Sign Detection Using Machine Learning** in **Journal of Emerging Technologies and Innovative Research (JETIR)** ISSN UGC Approved (Journal No: 63975) Date of Publication: 15-03-2023 and Paper ID: JETIR2303287.



K. Kishan Chand has successfully completed the Talent Next certification assessment and Recognized as a **Mentor** for Project Based Learning (PBL) in Java Full Stack Program conducted by Talent Next from 13-02-2023 to 03-03-2023.



S.Naga Chandra Sekhar has successfully completed the Talent Next certification assessment and Recognized as a **Mentor** for Project Based Learning (PBL) in Java Full Stack Program conducted by Talent Next from 13-02-2023 to 03-03-2023.



V. Naveen Kumar has filled a patent Title of the invention : **Intelligent Medical Diagnosis System using Machine Learning and IoT Technologies** with Application No.202341011883 A and published on 17/03/2023.

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202341011883 A
(19) INDLA	
(22) Date of filing of Application :21/02/2023	(43) Publication Date : 17/03/2023

(54) Title of the invention : **Intelligent Medical Diagnosis System using Machine Learning and IoT Technologies**

<p>(51) International classification :G06N 030400, G06N 030800, G06N 070000, G06N 200000, G16H 502000</p> <p>(86) International Application No :PCT/IN</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :01/01/1900</p>	<p>(71)Name of Applicant : 1)Dr. Thippeswamy G R Address of Applicant :Professor, Department of Computer Science and Engineering, Don Bosco Institute of Technology, Bengaluru, Karnataka 560074, India ----- 2)Dr. Erappa G 3)Prof. Prapulla Kumar M S 4)V. Naveen Kumar 5)Sagar Babu Jeldi 6)A. Ravishanker 7)Dr. Yamana Devi C R 8)Dr. Aditya C R Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Thippeswamy G R Address of Applicant :Professor, Department of Computer Science and Engineering, Don Bosco Institute of Technology, Bengaluru, Karnataka 560074, India ----- 2)Dr. Erappa G Address of Applicant :Professor and HOD, Department of Information Science and Engineering, K R Institute of Technology, Bengaluru, Karnataka 560090, India ----- 3)Prof. Prapulla Kumar M S Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Malnad College of Engineering, Hassan, Karnataka 573202, India ----- 4)V. Naveen Kumar Address of Applicant :Research Scholar, Department of Computer Science and Engineering, Don Bosco Institute of Technology, Bengaluru, Karnataka 560074, India ----- 5)Sagar Babu Jeldi Address of Applicant :Research Scholar, Department of Computer Science and Engineering, Don Bosco Institute of Technology, Bengaluru, Karnataka 560074, India ----- 6)A. Ravishanker Address of Applicant :Research Scholar, Department of Computer Science and Engineering, Don Bosco Institute of Technology, Bengaluru, Karnataka 560074, India ----- 7)Dr. Yamana Devi C R Address of Applicant :Associate Professor, Department of Telecommunication & Engineering, Dr. Ambedkar Institute of Technology, Bengaluru, Karnataka 560056, India ----- 8)Dr. Aditya C R Address of Applicant :Associate Professor, Department of Computer Science & Engineering, Vidyavardhaka College of Engineering, Mysuru, Karnataka 570002, India -----</p>
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(57) Abstract :
The intelligent medical diagnosis system using machine learning and IoT technologies is a powerful tool for healthcare providers to improve medical diagnosis and treatment. The system utilizes real-time patient data collected from a range of IoT devices, which is analyzed using a machine learning algorithm. The algorithm provides clinicians with a diagnosis and personalized treatment recommendations based on the analysis of patient data. The system is highly accurate, efficient, scalable, and secure, providing healthcare providers with a comprehensive picture of the patient's health status. The system has the potential to significantly improve patient outcomes and the overall quality of healthcare.

No. of Pages : 16 No. of Claims : 10

M VENKATA PAVAN KUMAR has filed a patent Title of the invention : **Polar Harmonic Transforms of the Fractional Order with Funk Decomposition of Singular Values as a Safe Image Watermarking Method** with Application No: **202341010712 A** and published on 17/03/2023.

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/02/2023

(21) Application No.202341010712 A

(43) Publication Date : 17/03/2023

(54) Title of the invention : Polar Harmonic Transforms of the Fractional Order with Funk Decomposition of Singular Values as a Safe Image Watermarking Method

(51) International classification :A61B 080800, G01R 333873, G06T 010000, H02K 011400, H04L 250200
(56) International Application No :PCT///
Filing Date :01/01/1900
(57) International Publication No : NA
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
Filing Date : NA

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3)Dr.S.Gopi Krishna, Sri Mittapalli College of Engineering

4)Mr.K. Kolla Kotesiah, Prakasam Engineering College

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4)Mr.K. Kolla Kotesiah, Prakasam Engineering College

Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Prakasam Engineering College, Andhra Pradesh Prakasam -----

(57) Abstract :

Traditional digital watermarks struggle to maintain a good balance between durability and invisibility. To address this issue, we offer an adaptive picture watermarking technique that combines singular value decomposition (SVD) and the Wang-Landau (WL) sampling method. When using this technique, the principal component is first chosen as the embedded location, and then derived using SVD from the third-level approximation sub-band acquired via the three-level wavelet transform. The scaling factor then permanently incorporates the data into the host image. Using a specified objective evaluation function, the Wang-Landau sampling technique acts as a global optimization algorithm to determine the optimal embedding coefficient. To avoid the common pitfall of many classic optimization algorithms—falling into local optimization—the embedding intensity is adaptively modified using the accumulated knowledge from the past. Several image-processing attacks are conducted, and the experimental findings are detailed to confirm the validity of the proposed strategy. This method has been shown to achieve a trade-off between robustness and invisibility when compared to other comparable watermarking techniques based on both qualitative and quantitative evaluation factors including peak signal-to-noise ratio (PSNR) and normalised cross-correlation (NC).

No. of Pages : 10 No. of Claims : 3

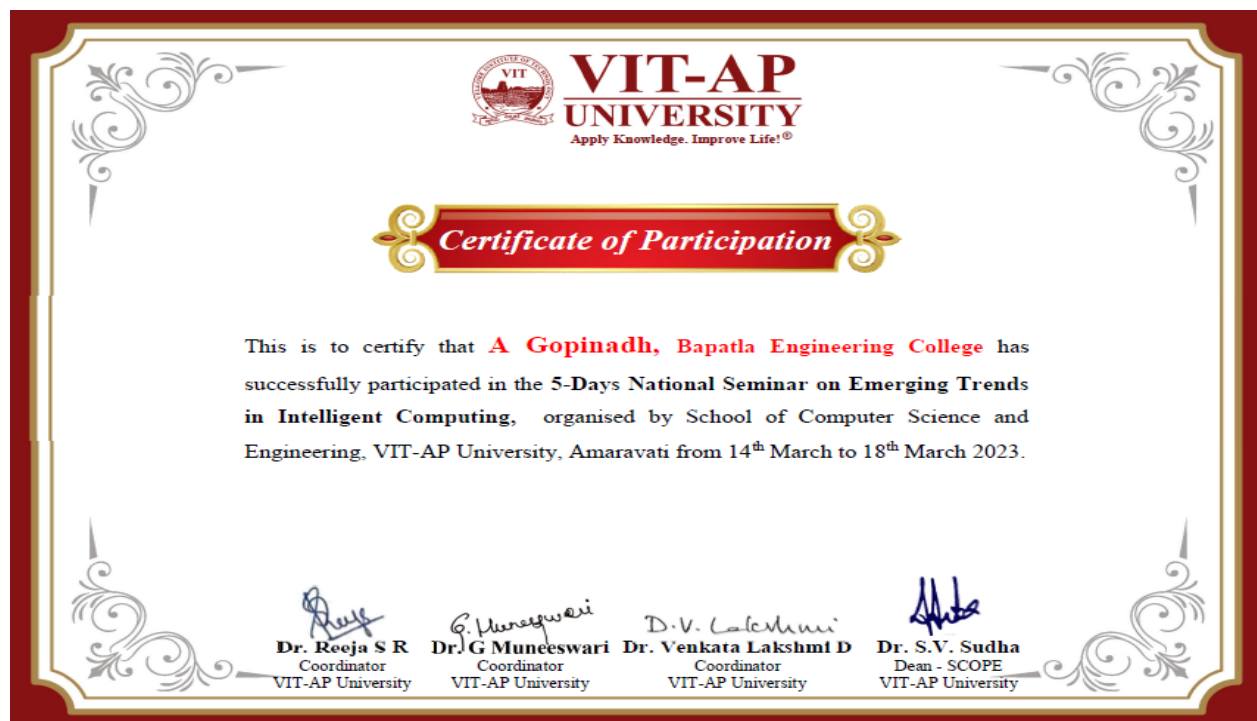
KARUMANCHI ARUN BABU has successfully participated in the **5-Days National Seminar on Emerging Trends in Intelligent Computing**, organized by School of Computer Science and Engineering, VIT-AP University, Amaravati from 14th March to 18th March 2023.



M VENKATA PAVAN KUMAR has successfully participated in the **5-Days National Seminar on Emerging Trends in Intelligent Computing**, organized by School of Computer Science and Engineering, VIT-AP University, Amaravati from 14th March to 18th March 2023.



A **GOPINADH** has successfully participated in the **5-Days National Seminar on Emerging Trends in Intelligent Computing**, organized by School of Computer Science and Engineering, VIT-AP University, Amaravati from 14th March to 18th March 2023.



MANGAMMA CHOPPARA has successfully participated in the **5-Days National Seminar on Emerging Trends in Intelligent Computing**, organized by School of Computer Science and Engineering, VIT-AP University, Amaravati from 14th March to 18th March 2023.

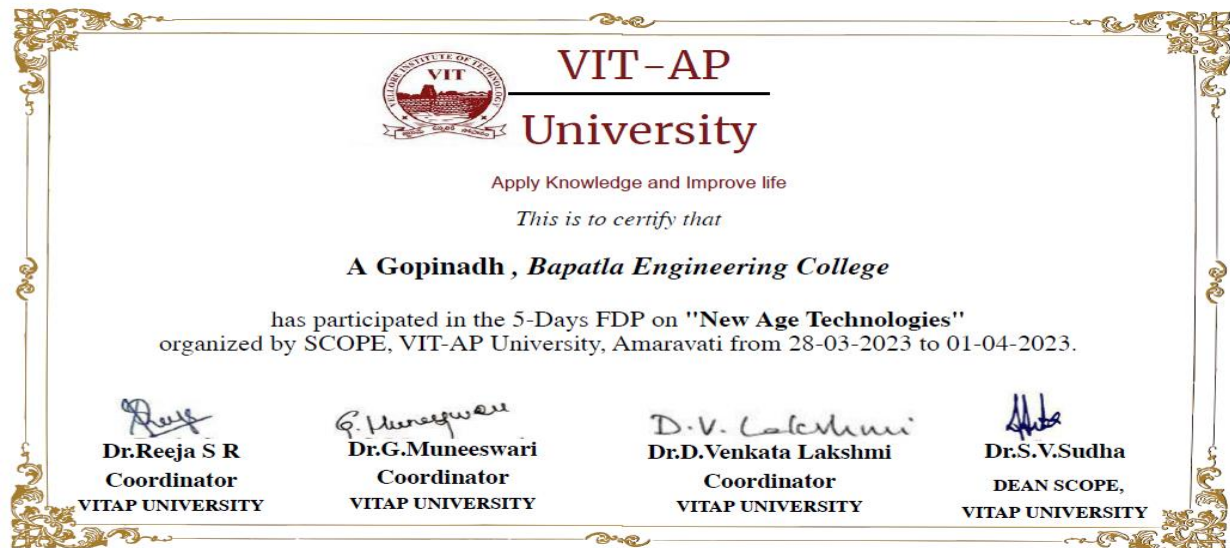


DR. M. VEERAKUMARI has successfully participated in the **5-Days National Seminar on Emerging Trends in Intelligent Computing**, organized by School of Computer Science and Engineering, VIT-AP University, Amaravati from 14th March to 18th March 2023.



APRIL MONTH ACHIEVEMENTS

A **GOPINADH** has successfully participated in the **5-Days Faculty Development Program** on **New Age Technologies**, organized by School of Computer Science and Engineering (SCOPE), VIT-AP University, Amaravati from 28-03-2023 to 01-04-2023.



K.Siva Kumar, published a paper title " **ADVANCED MACHINE LEARNING BASED ASPECT LEVEL SENTIMENT ANALYSIS FOR FLIPKART PRODUCTS**" Published in **International Journal of Creative Research Thoughts (IJCRT)** UGC Approved Journal No: 49023 with PAPER ID : IJCRT2304278 and Date of Publication: 09-April-2023.



BAPATLA ENGINEERING COLLEGE::BAPATLA
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Workshops/Webinars/FDP/Training Programs Conducted by Dept. of CSE
January - March 2023

S. No	Name of the Event	Title	Resource Persons	Organizers/Co-ordinator
1	Workshop	A Two-Day Workshop on Project Thesis Preparation	Dr. N. Sudhakar, Dr. D. Kishore Babu, Mr. M. Rajesh Babu	Dept of CSE

A TWO-DAY WORKSHOP ON PROJECT THESIS PREPARATION Organized by Department of Computer Science and Engineering from 13-03-2023 to 14-03-2023.

Chief Patrons:

Sri. Muppalaneni Srinivasa Rao
-President
Sri. Doppalapudi Rama Mohan Rao
-Vice-President-1
Sri. Gelli Dileep Kumar
-Vice-President-2
Sri. Manam Nageswara Rao
-Secretary
Sri. Kommineni Hari Padma Prasad
-Joint Secretary
Sri. Thalluri Ramakrishna Rao
-Treasurer

Patron:

Dr. Nazeer Shaik
-Principal

Conveners:

Dr. P. Pardhasaradhi
-Professor & HOD, Dept. of CSE
Prof. V. Chakradhar
-Professor & HOD, Dept. of CBE&DS

Resource Persons:

Dr. N. Sudhakar
-Professor
Dr. D. Kishore Babu
-Associate Professor
Mr. M. Rajesh Babu
-Assistant Professor

Organizing Committee:

Mr. M. Rajesh Babu
-Assistant Professor
Mr. T. Nagarjuna
-Assistant Professor
Mr. K. Ashok Babu
-Assistant Professor
Mr. K. Sandeep Saradhi
-Assistant Professor

Advisory Committee and Faculty:

Prof. P.S.V. Vachaspati
Assistant Professors:
Dr. M. Veera Kumari
Smt. Ch. Mangamma
Mr. K. Kishanchand
Mr. K. Arun Babu
Mr. K. Manideep
Mr. V. Naveen Kumar
Mr. S. Naga Chandra Sekhar
Mr. R. Veera Mohana Rao
Mr. J. Kumar Raja
Smt. M. Karuna
Mr. J. Madhan Kumar
Mr. P. Nanda Kishore
Mr. M. Venkata Pavan Kumar
Mr. A. Gopinath
Mr. K. Siva Kumar
Mr. K. Suman
Mr. T.Y. Srinivasa Rao
Mr. N. Srikanth
Smt. M. Lavanya
Ms. Y. Saranya
Smt. U. Sumadhatri
Smt. G. Venkata Leela Kumari
Mr. P.V. Naga Srinivas
Smt. R. Himabindu
Mr. B. Prasanth Babu
Mr. K. John Bunyan

Venue: Research Park Conference Hall

Timings: 7.30 A.M to 1.15 P.M



A TWO-DAY WORKSHOP ON PROJECT THESIS PREPARATION (for final year CSE students) 13th & 14th, Mar 2023



Organized by
Department of Computer Science &
Engineering

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E-mail: bec.principal@becbapatla.ac.in
Website: www.becbapatla.ac.in

About the College:

The Bapatla Engineering College (Autonomous), one of the seven educational institutions sponsored by the Bapatla Education Society was established in 1981 with a vision to impart quality technical education. It is NAAC accredited and is affiliated to Acharya Nagarjuna University. The College is a little away from the din and bustle of Bapatla. The college offers B.Tech. Programs in 10 branches of Engineering. These branches of Engineering include- Civil, Computer Science, Electronics and Communications, Electrical and Electronics, Mechanical Engineering which are thrice NBA accredited Electronics and Instrumentation which is accredited twice and Information Technology which is accredited once. The three new programs introduced are Computer Science (AI & ML), Computer Science (Cyber Security) and Computer Science (Data Science). The college also offers 5 Post Graduate programs in Communication Engineering & Signal Processing, Computer Science, Structural Engineering, Power Systems and CAD/CAM.

About Bapatla:

Bapatla is the administrative headquarters of Bapatla district with a historic and hoary past, about 75 Km. south of Vijayawada on Vijayawada-Chennai rail route. Home to an Air Force Station and several educational institutes of excellence, it is renowned as a prominent educational research hub. Bapatla is a calm and secluded tourist attraction along the East coast. The beach is famous as 'Suryalanka' and is about

6 km from the main town. With the rustic charm of its quaint environs, Bapatla promises to be a delight.

About the Department of Computer Science & Engineering:

The department of Computer Science and Engineering is established in 1994 and have experienced, well-qualified, committed and motivated faculty with specializations in various streams. The department offers four-year B.Tech. programs in CSE with an intake of 180, CSE (AI & ML) with an intake of 90 and a master's program in CSE. The curriculum of the various programs is known for a well-balanced composition of core courses and industry-standard technology courses. The Department was accredited thrice by NBA of AICTE and NAAC.

About the Department of Cyber Security and Data Science:

The department of Cyber Security and Data Science was started in the year 2022. The department offers B.Tech. (Computer Science-Cyber Security) and B.Tech. (Computer Science-Data Science) with an intake of 60 each. The students are trained in cutting edge technologies of Internet Security, Data Analytics and Visualisation, Artificial Intelligence and Deep Learning.

About the Workshop:

The final year project dissertation/thesis stands as an important milestone and accomplishment for an undergraduate student. The thesis writing

undoubtedly would be the first-time challenging experience of preparing a large amount of content running through several pages organized as chapters with figures, tables of results, citations and bibliography. In addition, it carries front pages like cover page, certificate, declaration, tables of contents, lists of figures and tables. The thesis moreover should conform to well-defined standards of formatting and presentation.

The nuance of preparing a thesis demands for control over sectioning, inserting figures and tables with captioning and numbering, cross-referencing them, typesetting complex mathematical formulas with numbering and cross-referencing and automatic generation of table of contents, lists of figures and tables, and bibliographies. The utmost challenge is that any changes and reordering of the above elements should be automatically taken care by the thesis preparation system. The two-day workshop on project thesis preparation enables the final year students to prepare their Project reports in Microsoft Word.

Topics to be covered:

- Introduction
- Front Pages
- Chapter Contents
- Inserting Figures
- Inserting Tabular data
- Inserting Equations
- Citations and References
- Tables of Contents, Figures and Tables
- Bibliography



BAPATLA ENGINEERING COLLEGE - BAPATLA

(AUTONOMOUS)

A Two-Day Workshop On **PROJECT THESIS PREPARATION**

(for final year CSE Students)

Date : 13th & 14th, Mar 2023

Organized By

Department of Computer Science & Engineering



BAPATLA ENGINEERING COLLEGE - BAPATLA


(AUTONOMOUS)

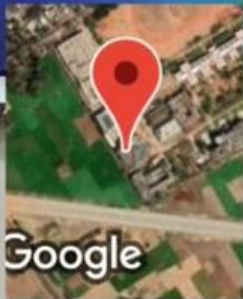
A Two-Day Workshop On **PROJECT THESIS PREPARATION**

(for final year CSE Students)

Date : 13th & 14th, Mar 2023

Organized By

 GPS Map Camera



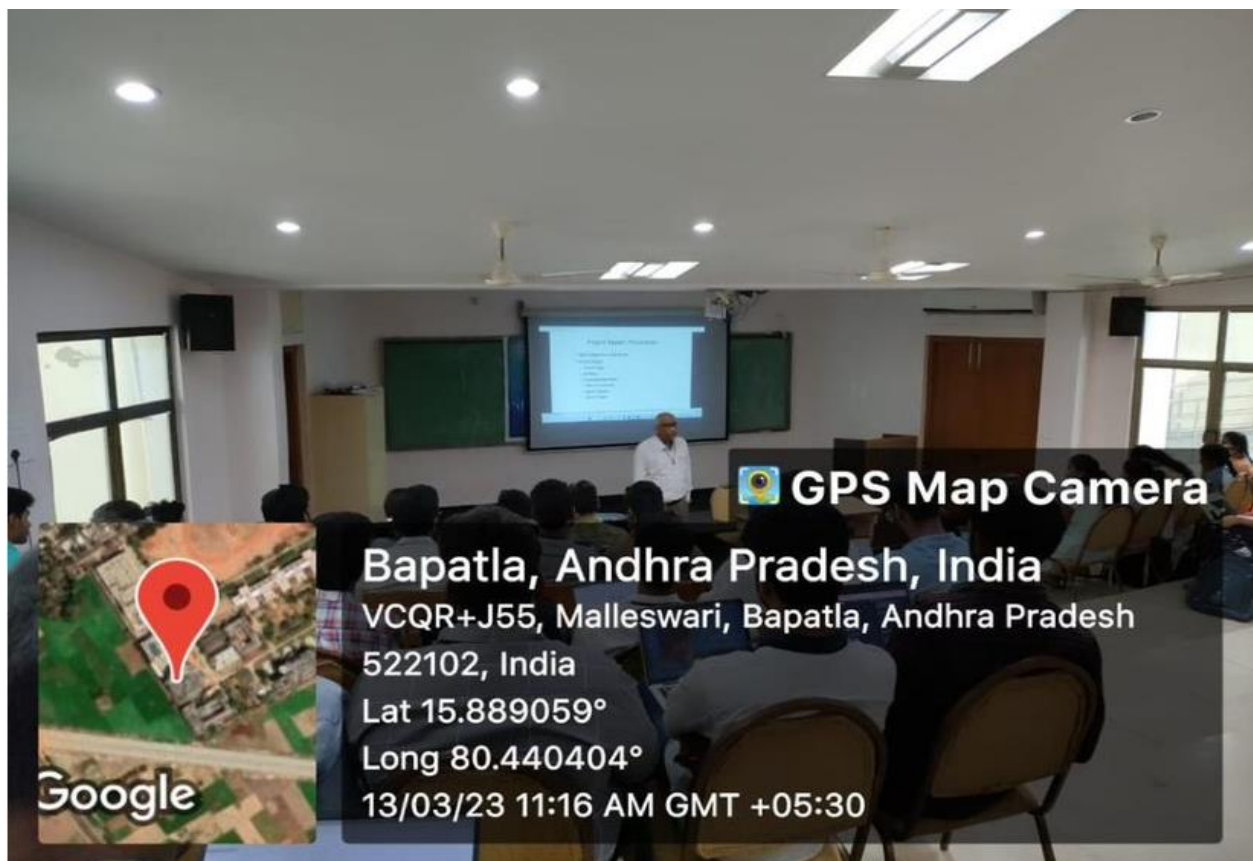
Bapatla, Andhra Pradesh, India

VCQR+M53, Malleswari, Bapatla, Andhra Pradesh 522102,
India


Lat 15.889061°

Long 80.440382°

13/03/23 08:50 AM GMT +05:30





 **GPS Map Camera**

Bapatla, Andhra Pradesh, India

VCQR+J55, Malleswari, Bapatla, Andhra Pradesh
522102, India

Lat 15.889055°

Long 80.440399°

13/03/23 10:49 AM GMT +05:30

Google

సృజనాత్మక ఆలోచనలతో పరిశోధనలు

బాపట్ల, మ్యూస్ కుబ్జీ: ఇంజనీరింగ్ విద్యార్థులు నూతన అభివృద్ధులు సాధించేలా సృజనాత్మక ఆలోచనలతో పరిశోధనలు చేయాలని బాపట్ల ఇంజనీరింగ్ కళాశాల సీనియర్ ఇన్ ఛార్జ్ డాక్టర్ ఎన్. సుధాకర్ అన్నారు. కళాశాలలో సీనియర్ విద్యార్థులకు ప్రాజెక్టుల రూపకల్పన, పారిశ్రామిక ప్రమాణాల నైపుణ్యాలపై

కేంబ్రిడ్జ్ లాగా నిర్వహిస్తున్న కార్యశాల మంగళవారం ముగిసింది. ఆయన మాట్లాడుతూ ప్రాజెక్టుల రూపకల్పనలో విద్యార్థులు ప్రదర్శించాల్సిన నైపుణ్యాలు వివరించారు. బీఈఎస్ అవ్వడానికి ముప్పులనేని శ్రీనివాస రావు, కార్యదర్శి మాను నాగేశ్వరరావు, కళాశాల ప్రిన్సిపల్ షేక్ నజీర్ తదితరులు పాల్గొన్నారు.